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The present issue is the first number of Volume XXXVII, of THE WEST INDIA COMMITTEE CIRCULAR. A copy of the Index to Volume XXXVI is enclosed with it. Special cases for binding Volume XXXVI can be obtained at the publishing offices, price 3/6 each, or 4/- post free. Subscribers can have their copies of the CIRCULAR bound at the inclusive charge of 7/6 per volume on sending them, carriage paid, to The West India Committee Rooms, 15, Seething Lane, London, E.C.3.

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15, SEETHING LANE,
LONDON, E.C. 3.

January 3rd, 1922.

The Sugar Duties and Preference.

FROM the Press messages received regarding the tour of the Parliamentary Under-Secretary of State for the Colonies in the West Indies, it is very evident that the fears which were expressed in some quarters that Mr. EDWARD WOOD would only hear the official side of West Indian questions, have, as we anticipated, proved to be altogether groundless. During twelve days spent in Jamaica, he appears to have visited practically every part of the island, and to have acquainted himself through personal intercourse with the wishes and requirements of all classes of the community. With the political questions brought before his notice it is not for us to deal, and it must suffice here to record that Mr. WOOD listened with sympathy and interest to the views embodying the legitimate aspirations of the people, which were submitted to him by various organisations and

individuals. It is stated that the representatives of commerce in the island urged Mr. WOOD to secure the reduction of the sugar duties in the United Kingdom; but we hardly believe that they could have done this without adding a proviso that any reduction of duty should not deprive the colonial producers of the advantage which their products enjoy under the present preferential tariff. The need for this should be obvious. There is no provision in the Preferential Tariff of the United Kingdom that the amount of preferential advantage given to sugar shall not amount to less than it is at present, and if our friends in Jamaica have been correctly reported, it would appear that they have overlooked the fact that, as the law now stands, a reduction in the duty would involve a reduction of the amount of protection afforded to sugar from British sources over foreign sugar. At the present moment, the Import Duty in the United Kingdom on sugar of 98 deg. polarisation and over, is 2½d. per lb., or £25 13s. 4d. per ton, and the preferential advantage enjoyed by sugar of the same polarisation from British sources amounts to £4 5s. 6½d. per ton. If a reduction in the duty were to be made with a view to stimulating consumption, it would have to be substantial, or, say, one of at least 1d. per lb. This would reduce the duty on foreign sugar to £18 6s. 8d., and the value of the preference to £2 14s. 5½d. per ton. The colonial producer of sugar sending his produce to the home market would, therefore, lose over £1 11s. per ton of his protection against his foreign competitor. It is, however, extremely improbable that a reduction of 1d. per lb. would stimulate consumption to a greater extent than it has already been stimulated by comparatively low prices. In 1918 the population of the United Kingdom was 46,000,000, the consumption of sugar 1,790,411 tons, and the Import Duty on 98 deg. sugars and over, £1 16s. 8d. per ton. In 1920, the consumption was only 1,105,482 tons, with a duty of £25 13s. 4d., but that this low consumption was due to extremely high prices which obtained in 1920, and not to the high duty, is shown by the experiences of 1921. With a population of 47,200,000, or only 2½ per cent. above that of 1918, the estimated consumption for that year has been 1,420,000 tons, although the duty was the same as it was in 1920, and further evidence of the increase in consumption brought about by the lower bond value of sugar is indicated by the fact that the consumption of the last six months of 1921 was 160,000 tons greater than that of the first six months. Everything now points to the consumption, even at the present rate of duty, which

is fourteen times what it was in 1913, rapidly reverting to the pre-war figure. This increase is being effected by natural causes, which still leave the colonial sugar producer in possession of the substantial advantage which the duty at the present rate gives him. Is he prepared to drop the substance of a tariff preference amounting to £4 5s. 6½d. per ton for the smaller preference of, say, £2 14s. 5½d. per ton, and the shadow of increased consumption in the United Kingdom which could in no circumstances hardly be sufficiently great seriously to affect the world's market price? The answer must, we feel, be in the negative. It must be remembered that before the war the per caput sugar consumption of the United Kingdom was already high—in 1913 it was 84lb. per head—and although it had sunk to 52lb. in 1920, last year it had risen to 67lb. Much absorption of sugar, therefore, from increased consumption, must not be looked for in the United Kingdom. It is not unreasonable, therefore, to suppose that the representatives of commerce in Jamaica must have been misreported. As the customs tariff of the United Kingdom stands at present, it is obviously to the interest of West Indian sugar producers who may wish to avail themselves of it, that the sugar duties should not be reduced. We would, however, welcome a reduction if, instead of the preferential rate being as at present, one-sixth of the duty without any minimum, a guarantee were given that the actual value of the preference should not be less than it is at present.

THE CANADIAN CABINET.

The new Canadian Ministry, the members of which were sworn in at Ottawa on December 29th, is as follows:—

Prime Minister and Minister of External Affairs	Mr. W. L. MACKENZIE KING.
Minister of Finance	SIR LOWE GOETS.
Minister of Justice	MR. W. S. FIELDING.
Minister of Railways	MR. WILLIAM KENNEDY.
Minister of Militia, Defence, and Naval Affairs	MR. GEORGE P. GRAHAM.
Minister of Marine Fisheries	MR. ERNEST LAPOINTE.
Minister of Trade and Commerce	MR. JAMES ROBE.
Postmaster-General	MR. CHARLES MURPHY.
Minister of Labour	MR. JAMES MERDOCK.
Minister of Customs and Excise	MR. JACQUES BUREAU.
Minister of Agriculture	MR. W. R. MOTHERWELL.
Minister of the Interior and Mines	MR. CHARLES STEWART.
Minister of Public Works	MR. HOWIT BARTOCK.
Solicitor-General	MR. D. D. MCKENZIE.
Messrs. JOHN E. SINCLAIR, RAOUÏ DANDURAND, and THOMAS LOW have been appointed Ministers without portfolio.	

It is noteworthy that no fewer than five of the new Ministers were members of the Laurier Ministry.

OUR CALENDAR FOR 1922.

An Historic Episode Recalled.

With the present issue, "The West India Committee Circular Calendar" is posted to members of The West India Committee. The Calendar this year is embellished with a reproduction in colours of a rare engraving acquired recently by the Committee, to which it is dedicated. This engraving, which is by R. Dodd, after a painting from his own brush, and is dated October 2nd, 1790, depicts an episode during the memorable meeting of the Bounty for which The West India Committee was indirectly responsible, since it was as a result of the representations of that historic body that Bligh was sent to the South Sea to collect specimens of the bread-fruit tree and mangosteen, with a view to their introduction into the British West Indies.

An account of the circumstances which led up to the expedition, the settlement of Pitcairn Island by the mutineers (whose descendants live there to this day), and of Bligh's subsequent voyage in the Providence, having appeared in these columns in May last,* there will be no need to repeat it here. It may, however, be of interest to give the inscription on the plate which depicts "the mutineers turning Lieut. Bligh and part of the officers and crew adrift from His Majesty's ship the Bounty." After the above line it runs as follows:—"To the West India Planters and Merchants, on whose benevolent representation to Government the expedition for transporting the valuable Bread Fruit Tree to the British Islands in the West India's was undertaken, this Print is respectfully inscribed by their most obedient and very humble servant.—B. B. EVANS."

Lieut. Bligh, having completed a collection of 1015 fine Bread Fruit plants, sat sail from Otaheite, the 4th April 1789, and on the 29th, before sun rise, Fletcher Christian, with 3 other mutineers, entered his cabin; forced him out of bed and dragged him bound to the deck; a Boat 23ft. in length, 6ft. 9in. in breadth, and only 2ft. 9in. deep, was hoisted out, when Lt. Bligh, and 18 of the Officers and Crew, were forced into it, the provisions allotted them, consisted of 20 lb. of Pork, 150 lb. of bread, 5 quarts of Rum, 3 bottles of Wine, and 28 gallons of water with this scanty allowance after endeavouring in vain to procure a greater supply at Tofoa, where in the fruitless attempt one Man was killed by the natives, they by unprecedented abstinence and resolution, sustained life under divine providence for 41 days, allowing to themselves no more than about 1 oz. of bread and a ¼ of a pint of water occasionally, a teaspoonful of rum and an oz. of Pork pr. man pr. day, and after traversing 3688 miles in this open boat, almost incessantly exposed to rain and a tempestuous sea, they reached Timor, where they were hospitably treated by the Dutch Governor—vide Lt. Bligh's Narrative, Pubd. by order of the Lords Commissioners of the Admiralty" (sic.).

The West India Committee is the only body of its kind which has kept its subscription at the pre-war rate. It is hoped that members will mark their appreciation of this by making prompt payment of the modest amount which became due on January 1st, if they have not done so already.

*THE WEST INDIA COMMITTEE CIRCULAR, 350, May 12th, 1921

SOME NOTES OF INTEREST.

" THIS time no like 'fore time."

MR. JACK CULMER, of the Bahamas, is engaged in compiling an anthology of West Indian verse.

RECENTLY a Canadian Pacific train carried 165,000 bushels of wheat. It consisted of 110 cars, and occupied a mile of the line.

THE Merchants' Bank of Canada is to be absorbed by the Bank of Montreal, which will thus become the largest banking institution either in Canada or the United States.

NOT one banana has entered Australia from Fiji, it is stated, since the Commonwealth increased her duties on that fruit in pursuance of her policy of being "self-contained."

MR. A. D. C. ADAMSON has left St. Kitts, for which island he was an Hon. Correspondent of The West India Committee, in order to resume the management of Jolly Hill Estate, Antigua, belonging to Mr. T. E. Peters.

MR. S. R. BEARD, M.I.C.E., left England on December 3rd for Nassau to take up the appointment of Harbour Engineer for the Bahamas. Mr. Beard's previous experience has been mainly in Ceylon and the Gold Coast.

A CONCESSION to establish an oil fuel depot at Kingston, Jamaica, has been applied for from the Jamaica Government by an English Company, who propose to keep hulks with oil in the harbour, with which to supply oil-burning ships, as well as cater for the local trade.

THE CIRCULAR has been taken to task for giving the size of the *Empress of Britain* as 22,000 tons. It is true that that is her displacement and not her gross tonnage, which is 15,875 tons, but nevertheless, she will be the biggest passenger steamer that has ever visited the West Indies.

A CORRESPONDENT writes to inform us that Mr. Arthur Wakefield, whose death was recorded in last CIRCULAR, joined the Colonial Bank in London in 1869, resigning on pension in January, 1912, and that during his term of office he filled the position of manager of the St. Vincent and St. Kitts branches.

IN a recent interview with a representative of the *Manchester Guardian*, Professor Maxwell-Lefroy is reported to have said that the boll-weevil had reached the West Indian cotton fields. This, we have every reason to believe, is not the case, the boll-worm being the pest which is causing so much anxiety in the West Indies.

MESSERS. BLAIR, CAMPBELL & McLEAN, the well-known sugar machinery manufacturers, have issued an attractive catalogue devoted to evaporating plant. The Multiplex and Simplex Patent Film Evaporators manufactured by this firm are fully described and illustrated in its pages, as are many other types of evaporating plant.

A RECENT development of much interest to agriculturists in Wales, says the *Fertiliser and Feeding-Staffs Journal*, is the establishment of a plant breeding station in connection with the University College of Wales. The work of the station, which owes its origin to the generosity of Sir Lawrence Philipps, Bart., will be mainly research, with the object of producing improved production, with persistent, and hardy strains of the most important grasses and clovers.

THE production of beet sugar is being developed in Japan, in the Hokkaido district and in Korea, factories being in course of construction or in operation. Plantation whites are also being produced in Formosa on a small scale, white sugar gradually superseding yellows and browns in Japan, as they are in China. As an indication of Japan's desire to control the sugar industry of the Far East, the *Philippine Sugar Central and Planters' News* states that three factories in Java are now run by Japanese capital.

THE quantity of cacao shipped to the United States from British possessions for the nine months ended September, 1921, was 46,242,971 lbs. from the British West Indies and 45,222,117 lbs. from British West Africa. For the corresponding periods of 1919 and 1920, the quantities were, British West Indies, 28,024,056 lbs. and 29,921,377 lbs.; and British West Africa, 114,277,183 lbs. and 77,570,930 lbs. The supply from the British West Indies is thus increasing, and that from British West Africa diminishing.

AT eventide on November 17th, a whale, which swam in from the Caribbean through the gap between the breakwaters protecting the entrance to the Panama Canal, grounded in shallow waters to the east of the Canal prism, about a quarter of a mile south of the Cristobal coaling plant. It was unable to extricate itself, and remained there, with the top of its head and most of its back showing above water. It was killed by machine-gun fire and bombed by aeroplanes. The *Panama Canal Record* states that the whale, which was a female, was 120ft. long, and weighed 125 tons.

IT would be interesting to know, says the *Manchester Guardian*, whether the idea of extracting sugar from dahlia roots for new temperance drinks in prohibitionist America was suggested by observation of the behaviour of bees upon the dahlia flowers—especially the single varieties—in the autumn. Bees are generally more or less drowsy in the autumn, but, when found clinging to dahlia flowers, they have the appearance of being help-

lessly intoxicated. Whether this is due to something in the honey or not has not, a correspondent says, been proved. But he has often, like a benevolent policeman, lifted them off the flowers on the garden scissors, feebly waving their legs in bemused but amiable protest.

The juice of the dahlia has a strong, peculiar odour, reminiscent of the taste of peroxide of hydrogen; and if this quality permeates the sugar in any degree, it must remind one too hauntingly of the dentist's chair to contribute a pleasant flavour to a "soft drink." The dahlia is an American flower which came originally from Mexico, and was named after Andrew Dahl, the Swedish botanist—a pupil of Linnaeus. The first species brought into England—a purple-flowered kind—arrived near the close of the eighteenth century, and an old name for it was *Georgina pinnata*—perhaps in honour of George III.

The Hawaiian Sugar Planters' Association's Experiment Station is just in receipt of a colony of red spiders, whose principal article of diet in Australia, whence they came, was partially developed leaf-hopper eggs. These interesting specimens, says *Sugar*, arrived by the steamer *Makura*. Before being released in the cane fields of the islands they will be kept under close observation for some time to ascertain whether their habits remain as good as they were upon leaving the land of their nativity. If the various insects continue to behave as they did while under the observation of Field Entomologist C. E. Pemberton, who discovered them, it is reported that several diseases and blights that now attack sugar cane will be eliminated.

An annual Christmas Dinner, presided over by the Hon. Secretary, has become one of the regular features of the activities of the West Indian Club. This function was held in the newly-decorated club rooms, Whitehall Court, with Captain F. C. Messum in the chair, on December 21st, when an admirable musical programme was carried out by professional artistes, engaged for the occasion. Supporting the toast of "The Chairman," which was proposed in telling phrases by Dr. G. B. Mason, Mr. R. Rutherford paid a warm tribute to the energetic manner in which Captain Messum had furthered the Club's interests, adding that to this was largely due its increasing prosperity and the successful revival of its social activities.

The success of the use of paper for "mulching" the soil in sugar-cane cultivation has been so great at Olaa plantation, in Hawaii, that another sugar concern in that island, the Hilo Sugar Company, has entered into a contract with Olaa, where a plant has been installed for the manufacture of paper from surplus megass, for a supply sufficient for 400 acres. The use of the paper not only protects the soil from undue exposure to the sun, but also keeps down weeds. Dean states also that the protection from light (?) and increased temperature resulting from the paper causes increased bacteria activity in the direction of the formation of nitrates. It is

stated that the cost of cultivation is thus reduced 86 per cent. It is difficult to understand how the paper stands the rainfall, which at Olaa and Hilo averages somewhere about 150 inches per annum.

In connection with sugar and coffee consumption in the United States, the *Tea and Coffee Trades Journal* states: "Since sugar is so necessary to our enjoyment of this popular beverage, it is obvious that a considerable part of all the sugar we consume must find its way into the national coffee cup. The stupendous amount of 40,000,000,000 cups of coffee is consumed in this country each year. Taking two teaspoonfuls or two lumps as a fair average per cup, we find that about 800,000,000 pounds of sugar, almost one-tenth of our total annual consumption, are required to sweeten Uncle Sam's coffee cup. This is specially significant when one considers that, with the single exception of Australia, the United States consumes more sugar per caput than any country on earth. Sugar adds high food value to the stimulative virtues of coffee. The beverage itself stimulates the mental and physical powers, while the sugar it contains is fuel for the body and furnishes it with energy. Sugar is such a concentrated food that the amount used by the average person in two cups of coffee is enough to furnish the system with more energy than could be derived from 40 oysters on the halfshell."

It is a pity that so many personalities should be dragged into the discussions about representative government. Thus, Mr. W. H. Bishop, speaking at a meeting at the Souls in Purgatory Hall in Trinidad recently, is reported to have said that The West India Committee was "The most rotten institution in the British Empire," and to have alleged that the report of Sir Henry Norman in 1896-97 said "in part" (whatever that may mean) that "The West India Committee was the greatest danger the Colony had to contend with," this outburst being due to the supposition that the body represented (which it does not) an organisation in Trinidad with which the speaker had a bone to pick. We have searched the report of the Royal Commission in vain for this alleged statement, and have also consulted Sir Daniel Morris, one of the Commissioners, who writes: "I was out in the West Indies with the Royal Commission in 1897, and heard nothing either in Trinidad or elsewhere of any reflection on The West India Committee. I should say the whole thing is pure invention." But the value of Mr. Bishop's statement may be assessed by the fact that he alleges that while in London recently he saw in Hyde Park, "hundreds, perhaps thousands, of groups of men discussing political matters." This is pure rubbish.

TRASH POT.— $\frac{1}{4}$ lb. of fresh mutton, $\frac{1}{4}$ lb. corned pork, $\frac{1}{4}$ lb. of sweet potatoes, $\frac{1}{4}$ lb. white eddoes, $\frac{1}{4}$ lb. okros, 1 pint pigeon peas or mixed grain, $\frac{1}{4}$ lb. pumpkin, plenty of seasoning, 5 pints water, pepper and salt to taste. Boil until all the ingredients are thoroughly done.

NEW YEAR'S HONOURS.

Mr. Hutson and Mr. Grindle knighted.

The New Year's Honours List was published on January 2nd. Two names of outstanding interest to readers of the CIRCULAR appearing in it were those of Mr. Eyre Hutson, C.M.G., and Mr. Gilbert E. A. Grindle, C.B., C.M.G., on both of whom the honour of Knighthood of the Order of St. Michael and St. George is conferred.

Sir Eyre Hutson, who has been Governor of British Honduras since November 26th, 1918, was born in the West Indies. He entered the Colonial Civil Service in 1885 as Second Clerk to the Governor of the Leeward Islands. He was Private Secretary to Sir Charles C. Lees, successively Governor of Barbados, Mauritius, and British Guiana from 1887 to 1895, and three years later he was appointed to serve in a similar capacity to Sir Augustus Hemming, Governor of Jamaica. In 1901 he proceeded to Bermuda as Colonial Secretary, remaining there until 1903, when he was appointed Colonial Secretary of Fiji.

Sir Gilbert Grindle, who took a double first at Oxford as a Scholar of Corpus, of which College he was elected a Fellow in 1891, entered the Civil Service as a Clerk in the Local Government Board. He was called to the Bar in 1895, and transferred to the Colonial Office in the following year. In November, 1898, he was made Private Secretary to Mr. Joseph Chamberlain, and since June 4th, 1916, he has been Assistant Under-Secretary of State for the Colonies.

Another honour of special interest is the honour of Knighthood conferred on Mr. Edward Packard, Alderman and High Steward of Ipswich, and President of the Suffolk Chamber of Agriculture, who will be remembered as a Director of the New Colonial Company with interests in British Guiana and Trinidad. Note should also be made of the fact that Mr. Edward Howard Marsh, C.B., C.M.G., Private Secretary to the Secretary of State for the Colonies, has been appointed Commander of the Royal Victorian Order.

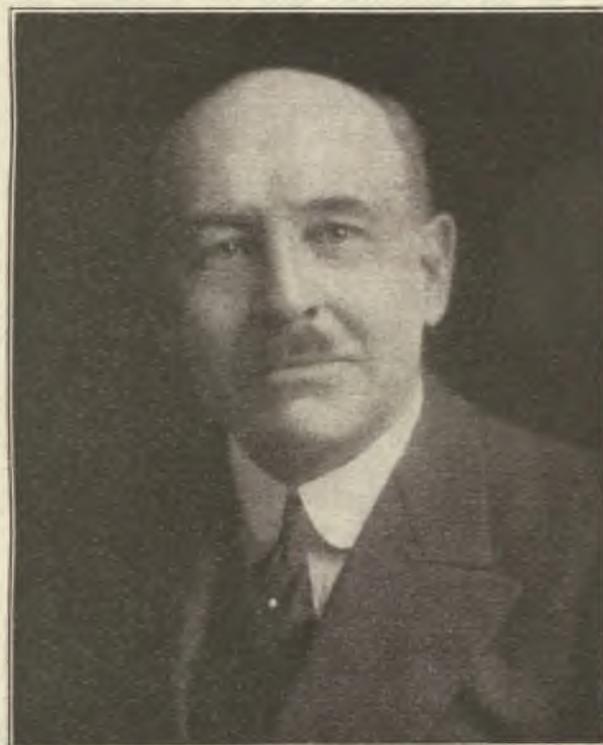
To Sir Eyre Hutson, Sir Gilbert Grindle, Sir Edward Packard, and Mr. Edward Marsh, the CIRCULAR, on behalf of its readers, extends congratulations.

MR. T. HARRISON HUGHES, Senior Partner of Messrs. Thos. & Jas. Harrison, and a member of the Executive of The West India Committee, leaves for Barbados in the s.s. *Ingoma* on January 16th. It was Mr. Hughes who, at the earnest solicitations of The West India Committee, consented to fill the breach caused by the suspension of the direct Transatlantic steamer service, by placing the s.s.'s *Intaba* and *Ingoma* on the route, two steamers which have since maintained a regular service between the United Kingdom and Barbados, Trinidad and Demerara, to the complete satisfaction of those who have availed themselves of it. Mr. Harrison Hughes will make a stay of two months in the West Indies, and it is a foregone conclusion that he will be cordially welcomed wherever he goes.

A NEW INDUSTRY FOR DOMINICA.

The Manufacture of Citric Acid.

The interesting news reaches THE WEST INDIA COMMITTEE CIRCULAR from Dominica to the effect that Messrs. L. Rose & Co., Ltd., who own the Bath and Emsall estates in that island, have recently built a fine factory at Bath and equipped it with a modern plant for the manufacture of citric acid. The first shipment of the produce of this factory left the island in the Harrison "Direct" Line steamer *Ingoma*, on November 27th. Citric



Photograph by Elliott & Fry.

Sir Eyre Hutson, K.C.M.G.,
Governor of British Honduras.

acid has never before been manufactured on a commercial scale in the West Indies; for, hitherto, this important product has been made in the chemical factories in Europe and America from concentrated lime and lemon juices, and from citrate of lime. The first shipment, therefore, of citric acid crystals from Dominica is of considerable interest from an economic point of view, and it will, no doubt, cause a flutter in the hearts of chemical manufacturers in England and America. Great credit is due to Messrs. L. Rose & Co. for their enterprise in the matter, and they will, no doubt, reap the reward they richly deserve.

It is said that the *Ingoma*, which after loading for several days left for London direct, carried away the largest cargo that has ever left Dominica in one ship. The cargo consisted of raw lime juice, concentrated lime juice, citrate of lime, essential oils of lime, cassia fistula, cacao, fruit, and last, but not least, citric acid.

THE SHIPPING REBATE SYSTEM.

The West India Committee's Objections

The Executive of The West India Committee addressed the following letter to the Imperial Shipping Committee on November 21st, in response to a request for their views regarding the present system of shipping rebates:—

Dear Sir,

With further reference to your letter, I.S.C. 884, of October 24th, I beg to inform you that the question of shipping rebates was considered at a meeting of my Executive held on Thursday last, November 17th, when I was instructed to convey to you the following replies to the five questions which you set out. They are as follows:—

- (a) What are the objections made against, and advantages claimed for, the deferred rebate system?

The Committee's objection to the deferred rebate system is that it is designed to prevent shippers, by the threat of forfeiture of accumulated unpaid rebates, from availing themselves of opportunities of shipping at low rates of freight by steamers which may be loaded in competition with the established lines. The advantages claimed for the system by the steamship lines are implied in question (b), the Committee's reply to which is given below.

- (b) Can the regular, frequent, and efficient services which are requisite for Imperial trade be obtained without any system of preference for regular customers?

The Committee believe that regular, frequent, and efficient services could be maintained without any system of preference for regular customers, such as is associated with the idea of deferred rebates. The question seems to imply that it may be contended, and the Committee have no doubt that the Steamship Companies do so argue, that they need to be protected against competition, and assured of the continued support of their regular customers, in order to justify the capital outlay necessary to establish and maintain services as described. But the same argument might, with equal force, be used by any manufacturing concern which has to instal and maintain expensive plant to enable it to secure and retain its business. As a rule, such concerns have not in the past been able to procure immunity from competition, and when they have it has generally been recognised to be in restraint of trade, and not in the public interest.

The legal prohibition of the deferred rebate system as applied to steamers trading to the ports of the United States, the Commonwealth of Australia, and the Union of South Africa has not had the effect of depriving those ports of adequate steamship services.

- (c) If not, are there alternatives preferable to the deferred rebate system?

If the opinion given in the Committee's reply to question (b) is well founded, question (c) does not arise.

- (d) If no such system is necessary, or if there are preferable alternatives, should the rebate system be made illegal?

The Committee are of opinion that the rebate system should be made illegal, that legislation should provide safeguards against preference being given to shippers who contract to ship exclusively by established lines, and should protect those who do not so contract against being penalised by the shutting-out of their goods unnecessarily.

- (e) If, on the other hand, some such system is necessary, and there are no preferable alternatives to the deferred rebate system, can any measures be taken to remove any objectionable features?

The Committee do not think that any such system as that under consideration is necessary.

Their views, being fully set out above, my Committee do not consider it necessary to avail themselves of your invitation to nominate a witness to give evidence on the subject of shipping rebates in so far as it affects West Indian trade at the present juncture.

Yours obediently,
(Signed) ALGERNON ASPINALL,
Secretary.

E.P.D. ARREARS.

An Important Concession.

The Chancellor of the Exchequer, speaking at Newcastle on December 10th, outlined a new scheme for the payment of arrears of Excess Profits Duty. He said:—

With a view to assisting industry in its present difficulty, I intend to propose to the House of Commons, in connection with the Finance Bill of next year, a scheme for spreading payment of the outstanding arrears of excess profits duty in suitable cases over a period of five years from a fixed date, which I propose should be January 1st next. Payment of the duty, in those cases to which the scheme is applied, will be made in full within that period of five years by quarterly instalments each year, the first instalment being payable before March, 1922. I propose that interest, payable in cash at the net rate of 5 per cent. per annum without allowance for income-tax, should be charged as from the fixed date upon all outstanding arrears of duty as assessed, whether falling within the scheme I have just adumbrated or not.

A right of appeal to the Special Commissioners of Income-tax will be afforded to any taxpayer whose application to be allowed to come under the scheme has been refused, the decision of those Commissioners on appeal being final. In the meantime, and pending the passing of the necessary legislation to give effect to this proposal, should the House of Commons assent to it, I have instructed the Commissioners of Inland Revenue as far as possible to give effect to this proposal in advance.

The West India Committee have been informed by the Chancellor of the Exchequer that the concession will be applicable in any case in which the taxpayer satisfies the Commissioners of Inland Revenue that the circumstances of his case are such as to entitle him to it.

THE WEST INDIA ASSOCIATION.**Glasgow Institution's Meeting.**

Mr. Thomas Prentice presided over the annual general meeting of The West India Association of Glasgow, on December 22nd, in the absence of Mr. H. Crum Ewing.

In moving the adoption of the report, the Chairman referred to the critical state of the West Indian sugar industry, owing to the serious fall in price, which involved selling under cost of production on even the most favourably situated estates.

In their report the directors state that:—

"The Association year was a quiet one compared with recent years, as most of the restrictions imposed during the War, which principally engaged the activities of the Association, have been withdrawn. Undoubtedly the most striking event of the period under review was the disastrous collapse in the price of sugar. In September, 1920, prices of crystallised and muscovado were about 130s. and 80s. respectively, while a year later these qualities could be purchased at about 45s. and 35s. respectively. Undoubtedly the main factor in this collapse was the check to consumption, due to the high prices and the consequent accumulation of stocks. Unfortunately, the collapse (which has not stopped at the figures named) had not been accompanied by a corresponding reduction in the cost of production, and even with the Colonial preference of 4s. per cwt., the outlook is black for estate owners in this country, whose profits were largely confiscated by the Government. Even planters in several of the Colonies who are not subject to the crushing taxation obtaining in this country, have lately been in such a parlous plight that the local Governments have had to advance them the necessary funds to keep their estates going until the crop is reaped."

As regards rum, they say that the market for this commodity has been absolutely lifeless, and the huge stocks render it impossible to look for any improvement for a long time to come. Possibly some steps may eventually be taken in the direction of producing power alcohol instead of rum, but so far these have not passed the experimental stage.

Other matters engaging the Association's attention during the year (the Directors state) included such subjects as the new Trinidad Income Tax Ordinance, the export of coal, Trinidad sugar restrictions, accommodation for passengers and mails, etc. The European beet crop on the whole has been fairly good, the crop of 1920 being 3,685,000 tons as against the previous season's crop of 2,619,000 tons. France had the worst result owing to drought nearly all the year. The West India crops at 244,000 tons have fallen rather under the previous year's total of 275,000 tons.

The retiring directors, Messrs. Thomas Prentice, W. N. Armour, George McCalman, and W. Scott Herriot, were re-elected. Mr. Humphry Crum Ewing, of Strathleven, and Mr. Thomas Prentice, of Messrs. Prentice, Service & Henderson, were re-elected chairman and vice-chairman respectively, while Mr. T. W. Donald, of Messrs. McGrigor, Donald & Co., was reappointed hon. treasurer, Mr. R. I. Muir being appointed hon. secretary, in succession to Mr. R. W. Tomlinson, who has retired through ill-health.

THE RIPENING OF GRAPE FRUIT.

The results of investigations carried out in connection with the ripening of grape-fruit are given in the *Journal of Agricultural Research* (Vol. xxii., No. 5). They show that in warm storage the percentage of acid calculated to the net weight of the pulp increases markedly in two months' storage. There is evidence that this increase is not due entirely to loss of water from the pulp, but that there is an increase in the amount of acid present. There is evidence indicating that there may be a slight decrease in the sugar content in warm storage. In cold storage there is a decrease in the acidity very marked after four months in storage, while there is little change in the amount of total sugars present. A possible explanation of this difference in the behaviour of the sugars and acids in warm and cold storage was pointed out. This phase of the problem deserves further attention. The investigations on the changes in the fruit during development on the tree showed that the total sugar content increased while the acidity decreased, the increase in sugar content being very marked.

Fruit on the tree increases in palatability and food value. There is, of course, always danger that the seeds will sprout in the varieties containing seeds if the fruit remains on the tree too long. There is also danger that the fruit will drop or be shaken from the tree by high winds.

It is of interest to note that the behaviour of the acids and sugars during growth and in cold storage is similar to the behaviour of these constituents of some of the deciduous fruits—that is, it is apparently possible to remove the fruit from the tree after it is well along toward maturity and to ripen it in storage. The result will be an apparently sweeter fruit, due to loss of acidity and a reduced bitterness, the naringin or bitter principle breaking down in storage. A period in cold storage, then, renders the fruit more palatable. From the experiments detailed above it seems probable that the pitting of grape-fruit can be controlled by curing at 70 deg. F. before they are placed in cold storage. Investigations are in progress at the present time on this last-mentioned phase of the work.

Though the proposals to hold a meeting of a West Indian Council in Trinidad on January 23rd have fallen through, owing to the unwillingness of several Colonies to participate, there is a possibility that the Associated Chambers of Commerce may meet at Port of Spain on that date.

The Cuba American Sugar Corporation, for the year ended September, shows gross earnings of 20 million dollars, against 92 millions last year, and a deficit, after payment of dividends, of 10 million dollars, against a final surplus for 1920 of 7½ millions. The American Sugar Corporation, which recently passed the 7 per cent. dividend on the common shares for the first time for thirty years, sells 30 million dollars fifteen-year 5 per cent. bonds on a 6.15 basis to pay off bank loans.

PLANTATION WHITE SUGARS.

Their Dietetic Value.

Plantation white sugars are sugars produced directly from cane juice without being submitted to the remelting and animal charcoal treatment which refined sugars have to undergo. They are the result of the last twenty years or so of scientific application on the part of the chemist and engineer. While plantation white sugar contains as high a proportion of sucrose—pure cane sugar—as the refiner's product, there are also present in them certain of the constituents of the cane juice other than sugar, which although only present in minute quantities, are of the greatest dietetic value, and which are absent in refined sugars. These bodies are analogous in their action to the vitamins present in natural foods, so essential to satisfactory nutrition.

The objections which are made on the part of buyers to these sugars are that although they are white, their whiteness is not that of refined sugars, and that they are apt to go "off colour" on keeping. The cause giving rise to these objections is, as a matter of fact, the same as that which gives plantation white sugars their dietetic superiority over refined sugars, viz., the presence of the small quantity of cane juice products mentioned above, which veil a certain degree of whiteness, and which, on prolonged keeping, are apt to become dark coloured; and, paradoxical as it may seem, this very marked defect is an index of high dietetic value.

The snowy lustre of American granulated sugar, or the clear, translucent depth of a well-made British cube, appeals to a mental idea of purity in the consumer. The execution of these sugars is faultless; their tone is excellent; every note in them rings true. But they lack the dietetic soul, the soul of the cane juice which the plantation sugars possess.

There is a popular impression as regards food that whiteness indicates desirable purity. It may indicate chemical purity in the sense of freedom from injurious constituents and adulterants, but forms a distinct objection to it from a food point of view. It is well known that a diet of white rice gives rise to the disease called beri-beri, while that of brown rice, that is to say of rice still possessing its grain coating, does not. Indeed, the light thrown on this subject by modern research explains the reason why, at the siege of Lucknow, during the Indian Mutiny, the loyal Sepoys were able to exist on the water alone in which the rice for the Europeans was boiled, containing as it did the valuable properties of the skin of the grain. Bread made with white flour is not nearly so wholesome as that prepared from whole meal. The fat of butter and the casein of cheese are, in a pure form, white, but gastric experience has taught the consumer that colour, that is to say the presence of bodies other than those for which these food-stuffs are primarily bought, is necessary for their satisfactory assimilation. A pure white butter or a pure white cheese would have little commercial value.

Quite recently, old accusations against raw sugars, that is to say, sugars which have not passed through the hands of the refiner, have been revived. The public have been told that these sugars contain the "sugar itch," *Acarus sacchari*, that they abound in objectionable bacteria, that in the course of their production they come into close contact with uncleanly "natives." The basis for these charges is a thing of the past. In the old days, in which there was, perhaps, justification for them, the simply clarified cane juice, after it had been boiled down to the proper consistency, remaining in open receptacles until it had spontaneously granulated. The mass was then dug out by "natives" and "potted" in open hogsheds, where it was allowed to remain until the molasses had, as far as possible, drained out of it—a tedious operation. It is quite otherwise with the present-day manufacture of plantation white sugars. The system of clarification is elaborate, and conducted under close scientific supervision. The cane juice is never handled otherwise than mechanically from the time it leaves the mills until it is packed in bags for shipment, and the operation takes as many hours as the old process did days. Cleanliness, also, is a *sine quâ non* for success. The use of sulphur gas, a part of the action of which is antiseptic, also guarantees the absence of biological impurities, while the presence of clay, fibres, etc., would, even if the process of manufacture permitted of their presence, at once degrade the sugar. No doubt, in some of the sugars which the refiners have to deal with there are many objectionable impurities. If these sugars were fit for direct consumption they would not, however, be in the hands of the refiner. And what may be said as to these in no way applies to modern plantation white sugar.

White plantation sugars are the result of an endeavour on the part of the producer to meet the mental attitude of the consumer towards colour, and at the same time to give him as much as possible of the cane-juice properties compatible with it. They are as good as the best refiners' sugars as regards the quantity of pure sugar present, and dietetically superior to them in that they contain valuable food accessories, which the latter lack.

The Executive Committee of the West Indian Agricultural College has held several meetings in Trinidad recently. With the arrival at Port of Spain of Mr. G. Moody Stuart, chairman of the Finance Committee, on the 14th of this month, there will be no fewer than eight governors of the college in the West Indies, the others being Sir Francis Watts, Sir Norman Lamont, Mr. E. A. Robinson, Mr. S. C. Thorne, Hon. J. T. de la Motte, Mr. A. E. Collens, and Professor J. B. Farmer, F.R.S. In England, Major H. C. Corlette is now engaged in preparing working plans of the college buildings, the sketch plans of which have been approved in general principles. A further meeting of the governing body is to be held at the Colonial Office on the 11th inst.

AGRICULTURE IN BARBADOS.

The Barbados Department of Agriculture is over-taking its printing arrears, and has now published its report on the sugar-cane experiments carried out during the season 1919-21, 35 tables of variety experiments on estates having been thrown over-board, in order that port might be reached in scheduled time. The general report of the Department of Agriculture for 1920-21 has also been published, having been much abbreviated in order to spare expense and delay in printing. As regards the sugar-cane experiments, those devoted to manures include the results of so many observations as to insect and fungoid pests in connection with these as to convey the impression that they are of little value. In the variety cane portion of the report, Messrs. Bovell and d'Albuquerque leave it to the reader, as we must do, to form their own conclusions.

The general report is far more informative. As regards cotton, the native variety of Sea Island is stated to continue to improve under the system of cultivation and selection, and with the exception of the cotton caterpillar, seems to be free from insect pests and fungoid diseases.

During the "cotton year" October 1st, 1919, to September 30th, 1920, it is stated that from 1,179 acres, reaped 206 bales of lint, weighing 100,610 lbs., were exported, as compared with 1,445 acres yielding 114,444 lbs. for the previous year.

According to the Customs returns, the exported sugar and molasses crops of 1920 were 28,604 tons of vacuum pan crystals, 6,133 tons of muscovado sugar, and 6,712,930 wine gallons of molasses, equal at 110 gallons per puncheon, to 61,027 puncheons of molasses of all grades, of the total value of £3,513,576, made up as follows:—

White Crystal sugar	147	tons	valued at	£	10,301
Yellow "	431	"	"	"	27,590
Dark "	28,926	"	"	"	1,821,716
Muscovado, ..	6,133	"	"	"	343,445
	34,737				2,203,052
Fancy Molasses	5,120,575	gals.	"	"	1,066,766
Choice "	1,243,109	"	"	"	217,544
Vacuum Pan "	349,246	"	"	"	20,184
	6,712,930				3,513,576

Fancy molasses is concentrated cane juice from which most of the impurities have been removed, but owing to the impossibility in the ordinary muscovado sugar factories of concentrating each tache or panful of fancy molasses to the same density, it is difficult to say how many gallons of this molasses are equivalent to a ton of muscovado sugar. From data obtained from various sources it would appear that 360 wine gallons of fancy molasses at 41 deg. Beaumé are equivalent to one ton (2,240 lbs.) of centrifugal muscovado sugar and 115 wine gallons of choice molasses. At this rate the fancy molasses manufactured in 1920 is equivalent to 13,475 tons of sugar. The total sugar crop, therefore, if no fancy molasses had been made, would have been 48,212 tons, besides, say, 8,000 tons consumed locally.

PANAMA AND COSTA RICA.

Effect of the Banana Disease.

"Undoubtedly, the principal export of the Republic of Panama is the banana. The trade in this product is in the hands of the United Fruit Company. Of late the company has been compelled to abandon certain lands on account of disease, which it has not been found possible to control, and the acreage of its banana properties decreased from about 25,800 in 1918 to about 20,000 at the present time, whilst no new work whatever is being undertaken."

In his report on the commercial and economic situation of Panama, from which the above is an extract, Mr. Constantine Graham mentions that a Commission was appointed in May, 1920, by arrangement between His Majesty's Government and the Governor of the Canal Zone to investigate the relations between the cost of living and wages of "silver employees" of the Panama Canal in consequence of the strike of those labourers in February, 1920, and their report was submitted in April, 1921. As a result of detailed comparisons between costs of different articles and services and wages actually received, it was found that on the whole men with families were at a serious disadvantage in 1920 as compared with 1914. The situation of single labourers was considered far less serious.

It is interesting to find that evidence of petroleum occurs on both the Pacific and Caribbean coasts of Panama. Seepages of oil or asphalt are reported off the shores of San Miguel, along the Gulf of Montijo, along Mosquito Bay, near Bocas del Toro. Gas was encountered in a well drilled for water near Bocas del Toro.

The National Assembly of Panama authorised early in 1917 the granting of concessions for exploration purposes for a period not exceeding three years, and for purposes of development for a period not exceeding 20 years. These concessions may be renewed for like periods. The royalty prescribed is 15 per cent. of the net profits of the oil or gas marketed, or 5 per cent. of the gross receipts.

The principal concession, so far, has been granted to the Sinclair Panama Oil Corporation, an American concern, which has permission to explore an area covering 11,000,000 acres, with the right to select and reclaim 1,200,000 acres. The Chorchá Petroleum Company, whose holdings have been leased by a New York concern, has permission to prospect claims in the province of Chiriquí.

The coconut trade of Panama has enjoyed an era of prosperity, and prices which, before the war, averaged \$25.00 per thousand, have been as high as \$95.00 per thousand since the termination of the war. There are two or three plantations on the Atlantic coast, and the nuts grown in the San Blas district are in greater demand than any other coconut on the New York market. At present, says the report, trade is very bad, and the price has dropped to \$16.00-\$18.00 per thousand. The inclusive cost of shipment to New York is about \$15.00, and in view of the fact that the value of

the San Blas nut on the American market is about \$82.00, it will be seen that there is practically no profit to be made at the present time.

In a report by Mr. F. N. Cox on Costa Rica, which is bound up by the Department of Overseas Trade with that on Panama, bananas again take pride of place. It is stated that the total export of bananas in 1920 was 8,652,478 bunches, an increase of 19 per cent. on the quantity exported in 1919. The export of bananas during the past four years has been as follows:—

	Bunches Exported.	Percentage of Increase or Decrease on Export of Previous Year.
1917	8 689,516	- 13.51
1918	7,129,655	- 18.05
1919	7,270,824	+ 2.10
1920	8,652,478	+ 19.00

The diminution of export in 1917 and 1918 was caused by the gradual withdrawal of steamers from this service after the entry of the United States into the war, while the large increase shown in 1920 is, for the most part, due to the fact that the United Fruit Company, the sole exporters, revised their contracts with growers and agreed to purchase smaller bunches of bananas than before. Since curtailment of the importation of bananas into the United Kingdom was enforced in the early part of 1917, all bananas exported from Costa Rica have been shipped to the United States up to the end of 1920, but the direct service of Messrs. Elders and Pyffes steamers to Avonmouth was resumed at the end of December, 1920, and bananas are now being exported again to the United Kingdom.

Costa Rica has now an estimated area of 80,000 acres under cacao. The exports of this article rose to 2,154 metric tons in 1920, large areas in the old and exhausted banana plantations having been planted with it during the past few years.

A RECENT *Journal* of the Board of Agriculture of British Guiana contains a copy of the Annual Report of the working of the British Guiana Experiment Station's Committee, which was instituted in 1919 to continue and augment the investigations on sugar which have been carried out at the Botanic Gardens for many years.

The Report gives an account of the work which has been done to bring the 101 acres now available for the experiments into cultivation, and of the construction of the necessary offices and dwellings. The land constitutes a portion of a sugar estate which was abandoned in 1891, and abuts on the Botanic Gardens. A certain amount of seedling canes have already been planted.

The Superintendent of the Station is Mr. J. Crabtree, late of the Woburn Experiment Station, who, in addition to his station duties, visits the estates in the colony with the view of studying their conditions.

In view of the continuing heavy costs of establishment, the Committee recommended that the contribution of the estates be \$1 per acre for the year ending September, 1921, which was sanctioned by the Planters' Association.

It is interesting to note that among the trees which had grown spontaneously on the estate since its abandonment was the African oil palm.

VALUE OF FACTORY CONTROL.

By a Chemist.

"A Chemist" writes: "Though nearly all cane-sugar factories now working are being controlled on a scientific basis, it would seem that even under the best system we still lack knowledge of exactly how closely we approximate the absolute truth. Of course, unless a factory is run absolutely scientifically, and the laboratory is close up to, or ahead of, the work, we can never expect to make any real progress; it therefore depends on the laboratory to meet the full requirements of the factory. Otherwise the returns, no matter how satisfactory they may look on paper, are really only of empirical value. The only correct way to start is to have everything based on natural quantities of sucrose and solids; then we may be said to begin to approach more nearly to the truth. The present tendency is for laboratories to be either forced into, or to degenerate into, being recording offices, and when they arrive at this stage their economic utility is nil. No doubt, to get the best result, or what is the same thing, the highest efficiency, the chemist should be independent of the power that controls the manufacture.

"Now, in an attempt to arrive at some idea of how near we approach the truth, it may be assumed for a beginning that a theoretically perfect mill should only give juice and fibre; therefore, the weights of the juice—duly corrected for maceration—and fibre should equal the weight of the cane, or be some constant of it. Taking some of the returns which have appeared in the technical Press during recent years, and applying this idea, it is found that this constant is anything from 90 to 97.5, showing thus unexplained differences of from 10 to 2.5 per cent., which is not very comforting. In arriving at these figures the question of the estimation of the amount of sucrose lost in the bagasse presents the greatest obstacle, or rather lends itself to the greater debate. This 'constant' method has certain objections, but apart from all these, or knowing these, it seems to have a practical utility even if only a stepping stone to better things."

MAILS FOR LEEWARD ISLANDS.

The West India Committee, at the instance of Mr. R. Bryson, recently suggested to the Postmaster-General that opportunity might be taken of the weekly service to be conducted by the R.M.S. *Araguaya* between New York and Bermuda, to route mails for the Leeward Islands and St. Lucia via New York and Bermuda, where they could be transferred to the Canadian Royal Mail steamers. This proposal has commended itself to the Postmaster-General.

The West India Committee have also called the attention of the Postmaster-General to numerous complaints which they have been receiving, to the effect that letters specially inscribed for despatch by certain ships are not being so dealt with.

TRADE OF THE BAHAMAS.

Revenue Benefits from Liquor Traffic.

The report by Hon. H. E. W. Grant on the Bahamas for 1920-21, shows a notable increase in customs revenue, the figures being £219,203 for the year as compared with £165,504 in 1919-20 and £61,827 in 1918-19. This increase, the report states, was due to increased importations of all goods, but chiefly liquors, in which connection it is worth noticing that the value of potable spirits imported has jumped from £6,370 in 1918 to £272,950 in 1920. The expenditure of 1919-20 has doubled itself in the year under review, becoming £220,813, exclusive of £48,682 for debentures redeemed. The excess of assets over liabilities on March 31st this year was £40,568. The public debt has been reduced from £173,126, at which it stood originally, to £36,111. The current coins are British silver and copper with a very little gold. United States gold and silver certificates are not legal tender, but are accepted if of \$5 and upwards at the same rate as United States gold.

Imports in 1920 were valued at £1,090,217 as compared with £539,212 in the preceding year. Of exports, which were valued at £300,407 against £382,140 in 1919, the proportions representing local produce and re-exports were £275,416 and £24,991 respectively. As regards the direction of trade, the United States retains first place with shipments to the value of £186,216. Exports to the United Kingdom, worth £39,741, represented a decrease in value to the extent of £23,480, due to reduced cargoes of sponge and tortoise-shell. There was, however, an increase in the shipments to Canada. Whilst the Colony's sisal and sponge industries show decreases both in quantity and value, there has been a revival in lumber and tomatoes, the last named product enjoying a regular weekly service with Jacksonville, so that there was no difficulty in moving every crate ready for shipment.

The year was a very good one for sponge on the whole, and the policy of the Marine Products Board in establishing closures and artificial culture is working well. The turtle trade has been depressed, but this may prove a gain, as if the turtle-shell always sold for the prices obtained in 1919, no laws could protect the turtle from extinction. The Board is extremely hopeful about the future of the industry which has been started in fishing and curing Bêche de Mer.

AN OLD COLONY SEAL.

The old Seal of the Bahamas depicted on this page forms one of a collection of West Indian Seals bequeathed to the Bodleian Library at Oxford by Bishop Rawlinson in 1755. Its date is, unfortunately, not known; but some clue is afforded to it by the motto, "Expulsis Piratis Restituta Commercium," appearing on it, which may be translated, "The Pirates having been expelled commerce was restored," for presumably that motto must have been adopted after 1718, the year in which the then Governor, Captain Woodes Rogers, R.N., the res-

cueer of Alexander Selkirk from Juan Fernandez, suppressed piracy, which had hitherto been rampant in the colony, the Buccaneers, who degenerated into pirates, having made the island the base of their marauding expeditions and the scene of their debaucheries. It is reasonably certain, then, that the seal was struck during the reign of King George I. or King George II.

The inscription round the Seal reads, "Sigillum Providentiæ Coeterrarumque Bahamæ Insularum," which may be interpreted, "The Seal of Providence and of the other islands of Bahama."

It will be noted that the vessel depicted on the Seal is obviously a warship flying the Jack on the jack-staff. According to the illustration given in the official "Flags, Badges and Arms of the British Dominions beyond the Seas," this warship would appear to have given place to a square-rigged merchantman. THE WEST INDIA COMMITTEE CIRCULAR is indebted to Bodleian's Librarian for permission to reproduce this Seal.

During last year, 281 new members were elected to The West India Committee. The corresponding figures for the previous eighteen years are given below:—

1903	...	219	1910	...	157	1916	...	109
1904	...	342	1911	...	198	1917	...	152
1905	...	138	1912	...	146	1918	...	222
1906	...	150	1 13	...	123	1919	...	242
1907	...	141	1 14	...	81	1920	...	419
1908	...	180	1915	...	120	1921	...	281
1909	...	155						



An Old Bahamas Seal.

WEST INDIAN CURRENCY.

BY AN OCCASIONAL CORRESPONDENT.

The suggestion to change the unit of account throughout the British West Indies from the West Indian dollar to a £ is a sound one, and if the subsidiary coins can be decimal fractions of a £ it will form an interesting object lesson for the remainder of the Empire where the present £ and its subsidiary coins are in use. The statement, however, on page 19 of Colonel Davson's brochure, "A West Indian Currency," that the money of account in St. Lucia and Antigua is sterling, is incorrect. Jamaica is the only part of the West Indies which uses the £ as the money of account.

But while I consider that the adoption of a decimalised £ would be a progressive move, I do not think that a Currency Board is desirable for the West Indies. In the first place, the estimated profit by way of seigniorage mentioned by Colonel Davson seems rather on the generous side. Has adequate allowance been made for the cost of distribution of the currency, the maintenance of Currency Officers, strong-room accommodation, etc.? Furthermore, the present time, with silver at 37/40d., or some 50 per cent. above pre-war level, seems hardly a favourable time to embark in the business of buying silver. A good profit can, no doubt, be shown, but if the currency has at any time to be redeemed a considerable loss may result, as silver may, and probably will, recede towards its pre-war level.

Another factor which will cut into the profits is the maintenance of reserves. These, owing to the poor communication between many of the Colonies, will have to be large. Furthermore, large liquid reserves must be kept in London for redemption purposes. At the present time, all that is necessary is to ship redundant silver currency to the United Kingdom, and it is duly redeemed at the face value. The Imperial Mint will supply and redeem silver free of cost.

Whilst referring to the costs of issuing and redeeming currency, I notice that Colonel Davson, on page 18, states that the currency should be issued free of charge to any West Indian port. I am glad to see this, and I hope that redemption in London would also be at par. The West African Currency Board is held up as a successful example, but I should point out that at the time of writing the Board will supply currency in West Africa at a minimum of $\frac{1}{2}$ per cent., while it will redeem it at a discount of 1 per cent. These charges have to be incorporated into the Bank's exchange charges. One wonders what the West Indian merchant would say if the Bank's present exchange charges were doubled in order to meet such a currency charge as is imposed by the West African Currency Board. And this is imposed by a Currency Board who have an exceptionally favourable field in which to operate.

The following comparison may not be inappropriate. In British West Africa the Currency Board has depôts for the Gambia, Sierra Leone, Gold

Coast, and Nigeria. Communication within the two latter, where the Banks have several branches, is good, and currency can readily be moved to points where it is required. Communication between Sierra Leone, Gold Coast, and Nigeria is also frequent. The population of the British West African Colonies is over 20 millions.

On the other hand, communication between British Guiana, Jamaica, and the various islands is far from being speedy, and reserves at the currency depôts would need to be large, while the cost of freight and marine insurance, loss of interest when transferring currency from one depôt to another would be high. The population of the West Indies and British Guiana is under 2½ millions, in scattered communities, only four of which exceed 100,000.

The results obtained by the West African Currency Board cannot serve as a reliable guide for the West Indies. The population of West Africa is vastly greater, and it will for many years permanently absorb large quantities of coin.

In regard to payments received from the West African Currency Board, since 1918, when it was established, the local Governments have benefited by the sum of £200,000, which was paid in January and July, 1920, and this after an abnormal period, when owing to the inflation of prices, very large issues of notes were made, amounting for the year ended June, 1920, to £8,853,000. Colonel Davson correctly states that when the trade collapse took place, the West African Currency Board redeemed the redundant currency without delay, but he omits to say that a discount of 1 per cent. is being charged on all currency redeemed. A heavy charge has always been made for supplying currency, and one wonders how many times over the public have paid the £ received by the colonial exchequers after eight years' operations.

In one respect, also, there has been delay in redemption. This applies to the nickel and bronze coinage. A surplus of some £350,000 exists in Nigeria alone, for which the normal requirement is £100,000 to £150,000. The Banks have a very large surplus, and storage is a matter of some difficulty. It would appear that a considerable loss will have to be faced here.

For many reasons, therefore, the operations of the West African Currency Board cannot be held out as such a successful example, and an appropriate one, for the West Indies. No mention is made of the East African Currency Board. Possibly there is some good reason for this conspicuous omission.

Since the West Indian Islands and British Guiana are not federated, some difficulty may arise over the distribution of the seigniorage, and this is already confirmed on page 83, where we read that the British Guiana Currency Commissioners see good reasons why British Guiana cannot pool its seigniorage. This cuts at the root of the whole scheme.

At the present time there are redundant small-note issues which the issuing Colonies do not, or cannot, redeem.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

As the *Tropical Agriculturist* points out, there is some confusion attending the application of the name "Red Rust" in connection with plant disease. Strictly speaking, the term should be restricted to a certain class of fungi, the *Uredineae*, to which the fungus of the coffee leaf disease belongs.

In the extremely unlikely case of the whole of the home sugar supply being produced in the United Kingdom, it is of interest to know that, on the pre-war basis of consumption, about 1,000,000 acres of beet would require to be reaped annually, needing a farming capacity of 4,000,000 acres, or 3 per cent. of the entire acreage in cultivation in the United Kingdom.

Roasted disintegrated potato peelings have already been patented in Germany as a substitute for coffee, and now the patentee has added further laurels to his crown, and at the same time formed a connection between coffee and beer, by patenting a process of making a coffee substitute, or adulterant, by treating brewers' grains with lime under pressure and roasting the product.

There are many problems in agriculture which await solution. Why, for instance, does a soil which has been limed, and lost its lime, show signs of greater acidity than a soil which never has had lime in it? And why should soils with only a trace of lime in them be continuously fertile? These are but examples of the many vexed questions which await the reply of the scientific agriculturist.

The United States Department of Agriculture thinks that there are great possibilities in the way of a substitute for coffee in the plant called *cassina* in South Carolina, not only the shoots, but all the leaves, having been found to contain caffeine. It was consumed originally by the Indians in that district, from whom the Spaniards learnt its use, and was employed as a substitute for tea during the Civil War in the United States.

A variety of sugar-cane known as Shahjohanpur No. 10 was received some time ago from India by the Queensland Bureau of Sugar Experiment Stations, recommended as a cane which would stand cold weather well. The *North Queensland Register* states that it was first planted out in the Bundaberg Station, and found fully to sustain the character given it, and it is now being grown in large blocks in Southern Queensland.

Hydrolyzed sawdust, that is to say, sawdust heated under pressure with sulphuric acid to convert its woody fibres into sugar, has been used with great success as a cattle food in the United States. Dairy cows were fed on a diet of the treated sawdust, barley, bran, and linseed meal for four weeks.

The cows kept up their milk production on this diet, and were generally better than during the preceding and following period, when the sawdust product was omitted from their diet.

The mosaic disease of canes is spreading in Louisiana. All classes of canes are found to be subject to the disease, to a greater or less extent, and canes grown on poor as well as rich soils are equally subject to it. This disease, in every probability, arises from faulty assimilation of some essential constituent from the soil, or from the absence of it in the soil. There may be such things as vitamins in soils which are essential to the proper nutrition of plants, as they are in food for animal life.

The *Journal* of the Agricultural Society of Jamaica gives an instance of a young coconut tree from the trunk of which a deep coloured fluid was observed to be oozing. Upon examination two hollows, running for fully four feet up the stem, and fully eight inches deep in some parts, were discovered, and from these several quarts of fluid were let out. The trunk from the outside appeared to be quite sound, showing no indication of internal rot, but the cankered passage was filled with dead tissue. What, asks the *Journal*, was the cause of the trouble?

The *Journal* of the Jamaica Agricultural Society, referring to the trees planted seven years ago in the Port Royal Mountains of the St. Andrew district of Jamaica, says that the grape-fruit and sweet orange were among the healthiest and were already contributing to the export trade of the Island. The West Indian cedar trees were also affording much needed shade to coffee on many holdings, "and there were the Mahoe trees towering upwards." Each tree was becoming a centre of distribution, apart from its intrinsic value as timber, so that before long the work will automatically extend itself.

The variety of cane known as D74 still holds its own in Louisiana. This cane was one of the first seedlings raised in British Guiana, and although it was characterised by sweet, easily worked juice, its maturity period was too short to suit the climatic conditions of that Colony. This very characteristic made it especially suitable to Louisiana, where the period available for growth is comparatively short. It is curious that D109, which is another of the early British Guiana seedlings, and which, though promising well, did not bear continued cultivation there, is now giving good results experimentally in Mauritius. It will be found, however, that, generally speaking, the cane raised from local varieties, or from crossing with local conditions, is the best in the long run for the local conditions. The great point is that the period taken by the cane for growth and maturity should fall in with the seasons of the particular locality, so that the ripening process should start at the proper physiological moment and be satisfactorily concluded.

DOMINICA'S CENSUS.

"Appalling Infantile Mortality."

Mr. E. H. E. Dalrymple, Chief Clerk in the General Register Office, in an interesting report on the Dominica census, states that the taking of a census in the island is by no means a trifling enterprise, owing to the illiteracy of a large proportion of the population, the thinly populated mountainous areas to be traversed by the enumerators, and the hostile attitude assumed by the ignorant. There are 9,926 inhabited, and 810 uninhabited houses, the former number representing an increase of 2,176 on the figures of last census. About 80 per cent. of the houses are wooden structures.

The island's population is 37,059, showing an increase of 3,196 during the decade, and of 8,155 on the figures of 1901. The report states that "Owing to the increasing stream of emigration to Cuba, the United States of America, Canada, and other countries of late years, the increase of the last ten years must be regarded as a purely natural increment. When the appalling infantile mortality caused by insanitation, the lack of knowledge in the elementary care of the young amongst the labouring class, the absence of a proper medical service in the country districts, and the alarming spread of yaws and other diseases are taken into consideration, this increase must be considered as satisfactory." The death rate has increased from 21.22 in 1911 to 27.62 at the end of 1920, and there are now signs that the birth rate is declining. As a diminished younger generation reaches maturity, a decline in the population will follow, and proceed with increased rapidity.

The population of Roseau stands at 6,809, an increase of 226 since 1911. Pointe Michel does not boast of being a town; nevertheless, with a population of 1,373, it comes next to Roseau in the number of inhabitants. Portsmouth, the second town and a port of entry, musters but 1,112 people. The females in the island exceed the males by 3,539, a preponderance that Mr. Dalrymple attributes to the apparent greater longevity of the former sex. As regards age, it was practically impossible to obtain accuracy, as it was common to find "persons of sixty summers giving their ages as twenty without any desire to conceal their true ages."

Of the total population of 37,059, no fewer than 84,088 were born in Dominica; 86,604 are returned as British subjects. "There are two East Indians, one an inmate of the Alexandra Cottage Homes, and the other a frequent visitor of H.M. Prison." It is a sad reflection on the state of Dominica's education to find that less than a third of the population can read and write. As regards complexion, 556 are shown as whites, 11,563 as coloured, and 24,940 as black. In the second class are grouped the 141 pure-blooded Carib inhabitants of the Island.

NEW ZEALAND proposes to give a preference of ½d. per lb. in the Customs Duty on sugar produced within the British Empire.

JAMAICA GOVERNORS.

BY FRANK CUNDALL, F.S.A.

IX.—Sir Hender Molesworth.

After the departure of Carlisle in May, 1680, Morgan, as we have seen, again acted as Governor of Jamaica until the arrival of Lynch in May, 1682. On the death of Lynch in August, 1684, the control of Jamaica fell into the hands of Colonel Hender Molesworth, as Lieutenant-Governor. Born in 1688, of good Irish descent, he was the second son of Hender Molesworth, of Devonshire, and Mary Sparke. Long and honourably associated with the colony, he belonged to the merchant class, thus providing an exception to the generally accepted tradition that in the past all the men of influence in Jamaica were of the planter class, although he, of course, owned land in the colony, and on one occasion addressed the Assembly as Brother Planters.

The first reference to him in Jamaica is his having in 1668 with others (Molesworth, Robins & Company) purchased the Spanish ship *Nuestra Señora de la Concepcion y San Joseph*, which had been condemned by the Prize Court presided over by Sir James Modyford. He had apparently then been in the island for two years, for in his speech to the Assembly in 1686 he said, "You have known me twenty years."

He was appointed, by Modyford, Factor for the Royal African Company in the place of George Reid, and in that capacity he not infrequently found himself in opposition to the planters, whose sole desire was to have a good supply of slaves at as cheap a rate as possible.

In August, 1670, he—then Captain Hender Molesworth—was sworn one of His Majesty's Council. He then owned, with his Company, 6,000 acres in St. Catherine. Two years later we find him appointed, with Byneloss, to represent the Council on a joint Committee with the Assembly on Customs matters, and he was often consulted on questions of finance. On the 8th of July he wrote to Thomas Ducke in London, telling how a ketch trading at Cartagena with seventy negroes, of which four were his own, was seized by the General of the galleons, the goods burnt in the market place, and the negroes sold for the King's account. This made them apprehensive for the safety of Captain Ayler, who two months before had been almost lured and ready to come away from Camperachy, lest some of the Spanish fleet had trepanned him.

In January, 1676, Lord Vaughan wrote to Sir Robert Southwell by the hand of "Captain Molesworth, one of the Council, and a very 'ingenious' person, who will give great information and light concerning the laws, and very agreeably entertain Sir Robert with all the interests of this place."

In January, 1677, he and Lynch gave evidence before the Lords of Trade during the consideration of the complaint of Thomas Martin that Vaughan obstructed him in the collection of his dues as Receiver of Custom; and again in April, when the laws of Jamaica were considered, he was present with Lynch. In March, 1680, the Lords of Trade recommended to the King that, owing to the death

of Sir Thomas Modyford, Attorney and Procurator of the Dutch West India Company in Jamaica, before the King's commands could be executed, Sir Charles Modyford, Francis Hanson and Hender Molesworth should be empowered to receive in his stead the bond entered into by Richard Brayne for the restitution of certain negroes, and in April, Carlisle was so informed.

In 1680 he was a Major and had a company in the Regiment of Port Royal. In April he joined Peter Beekford and Long in giving bail in £4,000 for Long's surrender on the 24th of May or earlier.

When Lynch arrived as Governor in June, 1682, he found both King's Houses, the one at Port Royal, the other at Spanish Town, in such bad condition that he had perforce to stay elsewhere, and he selected to stay at Colonel Molesworth's. In April, 1683, Lynch wrote home: "I greatly desire a dormant commission for Colonel Molesworth. Believe me, he is an intelligent, loyal, virtuous gentleman, who will serve the King and country. I will pawn my credit and life on it"; and in June: "In case of my death the Island runs a great risk, for it will be ravaged. A blank commission would retrieve it. I desire your care and solicitation therein." In the following February Lynch wrote: "I must thank you sincerely for Colonel Hender Molesworth's commission, for it is certain that Sir Henry Morgan's hope of governing as first Councillor has buoyed up his little senseless party, and occasioned its insolvency and our late troubles. This you have now obviated, and I am most exceedingly obliged to you for accepting my recommendation.

In October, 1683, Colonel Robert Byndloss was suspended the Council for striking Thomas Martin and using provoking language towards Colonel Molesworth.

In November, Lynch, in a long letter to the Lords of Trade, mentioned that he had made Molesworth Colonel of The Point (Port Royal). In June, 1684, Molesworth sold two properties in St. Mary to Lynch.

On the 25th of August that year, Molesworth was sworn in as Governor at the Privy Council consequent on the death of Lynch, which had occurred on the 24th. In assuming Lynch's fallen mantle, Molesworth inherited the very serious trouble arising from the attacks made by pirates and by privateers on the fishermen from Jamaica who went travelling amongst the cays to the south of Cuba, many of the privateers holding commissions from the French Governor of Petit Guavos, off Hispaniola.

Molesworth, in following out Lynch's policy, was thwarted on all occasions by a faction backed by Morgan and headed by Elletson, especially in connection with the Assiento, or trade in negroes with

the Spanish colonies, in which Molesworth himself was personally interested.

In September, 1684, Molesworth wrote to the Governor of Trinidad de Cuba:—

"No sooner had I entered upon this Government on the death of Sir Thomas Lynch, when I received many complaints from honest traders and fishermen of injuries received from your nation, who treat them without any distinction as pirates and robbers. Among others, Derick Cornelison, with his sloop belonging to this harbour, was attacked without any warning by Don Juan Balosa, while peaceably trading on your coast, and taken into port, where his sloop and goods were condemned, to the value of 6,000*l.*, his men kept prisoners, and himself threatened with death till he was forced to fly to save his life. The pretence was

that he was lieutenant of a galley sent hence by the late Governor for suppression of pirates. It is well for you that he escaped, or the whole town of Trinidad would have been too poor a satisfaction for such a violation of the law of nations. We have the same law as you against trading with foreigners, but we do not treat your ships as you treat our sloops. If we suffer your ships to trade we protect them afterwards, and if not we give them fair notice to be gone. You permit the sloops to trade for a little to be the more sure of seizing them. I request a copy of the process by which the sloop was condemned, for the satisfaction of the owners, and that you will deliver the prisoners to Captain Stanley of His Majesty's Sloop *Bonita*. I would beg you also to return them their sloop, and be content with the confiscation of their goods, or at least to befriend them in the redemption of their vessel."

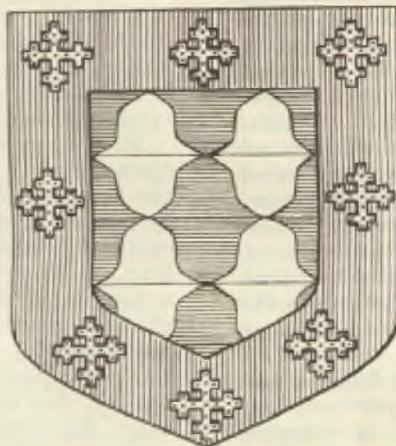
Owing to this affair the turtle trade on the cays on the south side of Cuba was lost for a while, and Port Royal suffered. Nearly two thousand people, black and white, were wont to feed on it daily at the Point, in addition to that sent inland.

Molesworth wrote:—

"We must inevitably set ourselves to remove the existing obstructions; it may be difficult, but our own galley must be the chief engine, with two or three small vessels to attend her. But meanwhile the Treasury is empty and people weary of contributing, so that I cannot quickly resolve what is to be done. It is lawful, I hope, to beat from our doors the wolves that lie in wait for our sheep. We seek to harm no others. The Spaniards who took Providence sacked a whole country for the robberies of a few that belonged to it, but we seek only to make the guilty suffer. Three of these periagos are the same that plundered Providence the second time without a commission. It is said that they had a commission the first time, and that the Governor of Havana took all the spoil into his own hands for his own security, in case the King of Spain should be forced to pay damages to the King of England."

(To be continued.)

PARTICULARS regarding membership of The West India Committee are obtainable from the Secretary, 15, Seething Lane, London, E.C.



The Arms of
Sir Hender Molesworth.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.
(Continued from page 545).

Cut-throat Competition.

When the estates' proprietors agree to co-operate! Yes, but it is proverbial that it is easier for a camel to go through the eye of a needle than it is to induce West Indian firms and individuals to co-operate. Perhaps it is the atmosphere, or possibly it may be the climate, but whatever the cause, it is a regrettable fact that many West Indian proprietors give one the impression of being suspicious of one another. This was brought home to me forcibly at various cane-purchasing centres, where the weigh-bridges of several sugar factories stood side by side clearly suggestive of cut-throat competition, and "not too far" (as they say in the West Indies) from the Caroni factory was a weigh-bridge of an estate whose real sphere of influence was twenty or thirty miles away. To put it mildly, this seemed rather like strewing raisins outside a neighbour's coverts to attract his pheasants.

As you get nearer to San Fernando it becomes more and more apparent that the south is the part of Trinidad most favoured by the East Indian immigrants and their descendants. You meet and pass them on the road, and see them working in the fields and on their provision grounds. Many have adopted the West Indian custom of carrying the *machete* or cutlass (a well-balanced weapon primarily intended for cutting sugar canes, but now used for many other purposes), while others prefer the *hackia* stick so characteristic of their race. The mud-walled and palm-thatched huts of these thrifty colonists, who have long outlived the name of coolies, soon become a familiar feature of the landscape.

If you see a small pennon fluttering from a tall bamboo pole near one of these huts you may regard it as a certainty that the owner is rising in the social scale, for this emblem denotes that he has killed a goat, and has entertained his friends at a feast; and it was agreeably significant to observe so many of these unmistakable indications of growing prosperity.

Each hut has its small provision ground planted with yams, tannias, and other ground provisions, a cotton shrub, and one or more papaws, a lanky tree with a bare stem and a bunch of large leaves which possess the property of making the toughest chicken tender when wrapped and cooked in them.

Near Claxton Bay, a railway station and little more, at the foot of the Montserrat Hills, to which it is a gateway, an object of interest was the great oil tanks of the Trinidad Central Oilfields, where is stored, pending shipment into tankers, the oil, pumped through pipe-lines from Tabaquite, twelve or more miles away. Beyond this again was a still more striking manifestation of the magnitude of the Trinidad oil industry in the new town of Pointe à Pierre, laid out and maintained by the Trinidad Leaseholds.

A Site for Port of Spain.

Six or seven years ago this hilly promontory, projecting into the Gulf, was a mass of bush and tangled undergrowth. Now it is a pretty town of well-built bungalows and admirable roads. Here are concentrated residences, offices, stores, playgrounds, immense oil tanks and the company's great refinery, which deals with the crude petroleum pumped to it from its own wells at Byzabad and Barrackpore, and also from those of independent companies which have no facilities of their own for handling oil.

From this refinery, pipe-lines with a diameter of no less than twelve inches are carried out to sea on a pier, and a skeleton jetty beyond that. Alongside this pier steamers of the greatest draft can lie—so deep is the water at the spot. It has now been forgotten that the many advantages of this site almost induced Governor Hislop to transfer the capital to it in 1808. Had he done so, the Trinidad Leaseholds would have found it difficult to find any other site so favourable for their operations.

Between Pointe à Pierre and San Fernando is a hot spring to furnish one of the many indications of the subterranean forces at work in this part of the island, others being the "mud volcanoes" known as the Devil's woodyard, in the neighbourhood of Princes' Town, which periodically eject mud and slush from the bowels of the earth.

Still more remarkable in this connection was a phenomenon which occurred some years ago off the south coast of the island. At sunset one November evening in the year 1912, the inhabitants of Chatham, a village to the north of Erin Bay, were startled by a violent explosion, and a tongue of flame which rose from the depths of the sea several hundred feet into the air. Thinking that the Day of Judgment had come, they fled precipitately to the woods, where they remained for several days. On emerging at last they discovered that a new island, which had made its appearance on the 3rd, about two miles from the shore, had burst into flame through an explosion of gas. For some days after that, this little stranger, whose exposed surface was at first about an acre in extent, grew in size in some mysterious way until Trinidad possessed a new dependency several acres in extent. The Governor visited the island, and the Union Jack was hoisted over it; but within a very short time its material began to silt away, until it finally disappeared once more beneath the waves which had given it birth. It was believed at first that volcanic agencies had been at work, but an investigation of samples of the material of which the island was formed, which proved to be nodules of iron pyrites and fragments of mud, led to the conclusion that Trinidad's new territory was formed by a violent explosion of gas. By the negroes this remarkable island was called, in their patois, *Ba la Patte*, or "Shake hand," that being the affectionate nickname of a high and very popular official at the time.

This patois survives from the days when, as the

outcome of a favourable report of M. Home de St. Laurent, of Grenada, in 1780, many French families settled in Trinidad. It is very descriptive, and the term *Mama poule*, applied to an old fogey, remained in my memory as being particularly telling.

The hot spring at Pointe à Pierre fills a crude sunken bath, with water possessing a temperature of 105 deg. Fahr., which the geologists Wall and Sawkins, in 1858, believed would prove beneficial in cutaneous and rheumatic affections; but no attempt has yet been made to exploit it, and there is at present no hotel nearer than Port of Spain.

Naparima Hill is the dominating feature of the southern part of Trinidad. This unique eminence rises almost sheer to a height of 670 feet, like a sugar-loaf, near the shore of a great bay. There are no other hills or mountains anywhere near it, and consequently it forms a very conspicuous landmark. It shelters San Fernando, the second town of the island, whose residences straggle about a third of the way up its west side.

In the year 1784, Don Josef Chacon had it in his mind to establish a town at La Brea Point with a view to exploiting the Pitch Lake (though history does not relate what he intended to do with the pitch) and to developing trade with the Main. Owing, no doubt, to the unhealthiness of the place, which to this day is infested by mosquitoes, his plan was modified, and he selected the site of the ancient mission named Purissima Concepcion de Nuestra Senora at the foot of this remarkable hill as a more convenient and a healthier site. There the new town was built, to be dedicated on October 25th, 1788, by Chacon himself to San Fernando, in honour of the Prince of Asturias, who was born at Madrid on October 14th, 1784, and afterwards became King Ferdinand VII.

Writing forty-three years later, Joseph declared that its houses resembled huge packing-cases promiscuously thrown ashore from ships in haste to discharge their cargo. Since then, however, many notable improvements have been effected, including the construction of the Harris Promenade, which, as its name suggests, dates from the governorship of Lord Harris. Along this spacious boulevard are the Victoria Hall, the Wesleyan Chapel, the Catholic Church of Our Lady of Good Help, the Town Hall, fire brigade station, and St. Paul's Anglican Church. Unlike that of most West Indian towns, the arrangement of San Fernando is not rectangular, and there is a pleasing irregularity and lack of consequence about its streets, one of which winds in and out at the foot of the hill.

Passing through the town, we paid our respects to Mr. L. M. Hobson, whom we found immersed in oil-company work, and his wife, who was one of Trinidad's most earnest and successful war-workers. Then we proceeded on our way to the famous Usine St. Madeleine, the island's premier central.

This Usine stands in a hollow in the rolling plain of the Naparima district, the contour of which resembles the field of Waterloo, to the east of San

Fernando. This area produces as fine sugar-canes as any other part of the West Indies, except when the abominable pest known as the frog-hopper (*tomaspis aspicata*) makes its unwelcome appearance, as it has done in recent years.

Near the factory quite a large village has sprung up, while round about were several two-storied bungalows, which one did not remember having seen before. The four great cylindrical factory chimneys also seemed to have grown taller; but otherwise the appearance of the Usine had changed very little since my first visit to it, many years before. It still reminded me forcibly of a great railway station, with its complicated network of lines and sidings, especially at night time.

Inside, however, many changes have taken place. My mind was carried back to a time when the manager was invited, and consented to deliver, an address on "Twenty years' improvements in sugar machinery in Trinidad." When asked for a copy of the lecture a few days before it was to be delivered, he wrote on a slip of paper, "Absolutely none." That led to some unpleasantness; but the statement was true, for in those days of uncertainty capital could not be found for investment in the sugar industry. Now, however, the factory embodies the latest improvements for handling the canes, crushing the juice from them and manufacturing it into sugar: with two sets of mills—one equipped with formidable revolving knives known as the Scarby Shredder, which slash the canes into pieces before they pass under the first rolls of the gigantic mill. The boiler range, too, is a special feature of the modernised factory, and Mr. Rudder, the consulting engineer, showed how, under his system of fuel control, the furnaces, fed with fine megass (the crushed cane), through funnel-shaped hoppers, almost look after themselves, a great saving in labour being thus effected.

The Usine was the conception of the late Sir Neville Lubbock, who, after a visit to Martinique and Guadeloupe in the early 'seventies, determined that it was in the adoption of the central factory system in vogue there that the future of the British West Indian sugar industry lay. The Usine St. Madeleine was erected and equipped at a cost of £240,000 a few years later, to take off the crops from the surrounding estates in the Naparimas. It was modelled on the lines of the French *usines*, and at the time of its erection embodied all the latest improvements of machinery and manufacture, even to the extent of being provided with charcoal filters for making white sugar.

My visit to the Usine was made at the invitation of Mr. Mark Moody Stuart, the manager; but as he was entertaining his family, there was "no room" for me "in the inn," and Mr. and Mrs. C. Forbes Todd—the latter another war-worker of repute—accommodated me in their bungalow. The manager's house had changed but little, and one quite expected Mr. Peter Abel to appear and to do the honours of the establishment, as he used to do so nobly. But his amusing texts which used to embellish the walls had gone. The travellers' tree, too, had grown to a terrific height, and it would no longer have been possible for Sir (then Mr.)

Townsend Fenwick to lift anybody up on his shoulders to reach its leaves, as he did to Prince George—our present King—in 1890.

"We lunched," wrote His Royal Highness afterwards in "The Cruise of H.M.S. *Bacchante*," "at the house above the mill, in front of which there was a large traveller's palm growing, several of the great cabbage-like stalks of which we cut, and out came spirits of living water. But care must be taken to be sure you get the right plant, for lately in British Guiana an inexperienced traveller having, as is the custom in tropical countries, taken a draught from the stem of one of the water-holding plants which grow in the forests, afterwards drank a 'nip' of rum. Shortly afterwards he died in great agony, and a post-mortem examination showed that his internal organs were literally sealed up with india-rubber. He had drunk the sap of the *Mimusops balata*, the juice of which coagulates and hardens in alcohol, and the rum had its usual effect in the man's stomach, with necessarily fatal results."

(To be continued.)

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Antigua's Cotton Crop.

Hon. Donald McDonald, writing on November 29th, states that rains have continued to fall in some parts, but to windward particularly the Island has again dried up, and heavy rains are required. Very little cane is in evidence, as it should be at this time of the year. The cotton crop, which is now all ginned, amounts to about 457 bales (of 250 lbs.). The yield on the whole was good, and the quality generally up to the usual grade. There has been a much smaller acreage planted for 1922 reaping.—On November 11th, Armistice Day was observed by a short memorial service in the Cathedral with two minutes' silence at 11 o'clock.—At a meeting of the Legislative Council on November 18th, among the Ordinances passed was a private Bill to promote the lighting of the City of St. John's by electricity. The General Loan and Inscribed Stock Ordinance was withdrawn owing to unofficial objection to the provisions for issuing stock and paying interest in England instead of locally. For the West Indian Conference, which was to have been held in Trinidad in January, the Colonial Secretary and the Senior Unofficial Member, the Hon. J. J. Camacho, were nominated to represent the Presidency. Before the adjournment of the Council, Hon. J. J. Camacho expressed, on behalf of the members and the community, much appreciation of the efforts of His Excellency the Acting Governor for the welfare of the Island pending the arrival of Sir Eustace E. Twistleton-Wykeham-Fiennes. The Hon. F. H. Watkins, I.S.O., who has been acting as Colonial Secretary, returned to Nevis on the 28th, to resume his duties as magistrate there. The entire community join in regret at the departure of Mr. and Mrs. Watkins from Antigua.

Mr. A. P. Cowley, in a letter dated November 22nd, pays a well-deserved tribute to the war-work of Mrs. Bonthron, who is a sister of Mr. Robert Bryson, and

says that the record of her work, which was done quietly and unostentatiously, is one to be proud of. For some years Mrs. Bonthron interested herself in the seed work industry carried on at the English Harbour by sending orders for distribution among her friends, and at the commencement of the war she decided to work up the sale of these articles with a view to helping Red Cross and other organisations, to which she was able to hand no less a sum than £3,000, in addition building two cottages for the use of disabled soldiers at Edinburgh in memory of the fallen. Further, when, a few months ago, Mrs. Bryson was in England, Mrs. Bonthron handed her £500 to be spent in Antigua, £450 of which it was decided to spend on a children's ward at the Hospital, the remaining £50 being given to the St. John's Day Nursery. In no better way, says Mr. Cowley, could the money be spent in Antigua, where Mrs. Bonthron's untiring efforts will prove of great benefit to the younger generation and a lasting advantage to the whole Island.

One of the Bahamas sold.

The Police Commission have resumed their sittings after a prolonged adjournment.—It is announced in Washington that a group of American capitalists have bought one of the islands of the Bahamas group, 44 miles from the Florida coast, with a view to establishing a second Monte Carlo, to be ready with gaming halls, hotels and a prize-fighting stadium by next winter. The message goes on to state that Great Britain will retain control of the customs and shipping privileges.

Barbados's Sugar Crop.

With more frequent and general rains, the crops are healthy looking, and there is hope, says the *Advocate*, of an average crop, given a continuance of favourable weather.—The principal measure of the Legislative Session, which closed on November 2nd, was the passing of the Income Tax Bill.

The British Guiana Income Tax.

Although no reply has yet been received from the Government to the Planters' Association's request for assistance for the sugar industry, writes Mr. J. V. Fitzpatrick on November 15th, it is believed that the matter is receiving very favourable consideration, and the Governor is himself going to Essequibo to inspect personally Plantations Anna Regina, Hampton Court and other of the estates on the coast, with a view to satisfying himself in what manner and to what extent assistance can be given the industry in that province. The Governor's proposals as regards Income Tax include the following schedule:—

RATES IN STERLING.		
On the first £300	Nil.	
On every additional pound and exceeding £300, but not exceeding £750	6/-	
Exceeding £750, but not £1,000	9/-	
" £1,000, " £1,500	1/-	
" £1,500, " £2,000	1/6	
" £2,000, " £2,500	2/-	
" £2,500, " £3,000	3/-	
" £3,000, " £4,000	4/-	
" £4,000, " £5,000	5/-	
and exceeding £5,000	6/-	

Public opinion is strong against the levying of the Act, but there is little doubt that the measure will go through and the tax be levied as from 1922.—Municipal estimates for Georgetown forecast the expenditure of \$450,829, and the Council have decided on a Town Tax of 3 per cent. on the appraised value of

property in the City.—Messrs. Wieting and Richter's grocery business has recently been amalgamated with Messrs. Booker Bros.' grocery department, the fusion taking effect as from January 1st, 1922. There have been several heavy showers, but apart from a few hours flooding, no damage has been done. The rice crop has, on the other hand, suffered severely, and the East Indian Community has been badly hit.

In a further letter, dated November 28th, Mr. Fitzpatrick says that the Sea Defence question is by no means settled, and it is expected by some that the Director of Sea Defences will fight the matter of the 10 mile limit to the last ditch. The subject will probably come up for discussion during the present sitting of the Court of Policy.—The Governor promised a deputation consisting of Mr. C. Farrar, Hons. A. P. Sherlock and T. Smellie, and Messrs. Carr, Austin, Streckland and M. Gonsalves, who put before him the difficulty of supplying certificates of origin in the form demanded, that until the question of the Colony adopting the certificate recommended by the Imperial Customs Conference was settled, the Comptroller of Customs would be instructed to accept suppliers' signatures in lieu of those of manufacturers.—Major Board, Mr. Hague, and Mr. Stewart Smith, of the United Distillery Co., are at present in the Colony enquiring into the practicability of cultivating the cassava plant in the neighbourhood of estates and villages, and of purchasing surplus molasses, both products being required for conversion into power alcohol.—Mr. P. E. F. Cressall, the District Inspector of Police, son of Mr. Paul Cressall, was married on November 12th to Miss Olga Seedorff, youngest daughter of Mr. and Mrs. Seedorff, the ceremony being performed by Canon Moody at St. George's Cathedral.

British Honduras and Mr. Wood.

Hon. A. R. Usher, writing on December 1st, speaks of the great disappointment which has been caused throughout the colony by the news that Mr. Wood will not be able to visit British Honduras, and says that Mr. Churchill's suggestion that a deputation should proceed to Jamaica to interview him there has not met with local approval, it being felt that a personal visit and contact with the community would do more good and create more interest.

The *Clarion* publishes the first report of Colonel Vaughan, representing the Rockefeller Foundation on the Yellow Fever Outbreak, covering the month of October. He states that the breeding of *stegomyia* mosquitoes in Belize is now under control. With very few exceptions, the attitude of the population has been helpful to the inspectors. There has been a material improvement in the sanitary condition of the town, but this work must continue for months in the most vigorous manner.—Only 537 persons out of 1,400 exercised the right of voting at the Town Board Elections, which resulted in the return of the following members: Messrs. Forman, Evans, Wagner, C. W. Vernon, H. B. Lord, A. Pandy, and Rev. R. Cleghorn.

Grenada's Financial Position.

At a meeting of the Legislative Council on November 24th, a minute by the Governor was read, summarising the conclusions of the Committee of the Executive Council appointed to inquire into the financial condition of the Colony. Instead of the year's revenue being £145,782, as estimated, it will

probably be only £99,140. Already the Government was living on borrowed money, the expenditure having exceeded the revenue for a number of years past. By drastic reduction of expenditure and additional imposts, it is hoped to balance the Colony's accounts.

Sir Julian Orde in Jamaica.

An action against the Governor has been started before Mr. Justice Sissett by Mr. E. F. H. Cox, who claims £5,000 as damages for the withholding of his pension to which he asserts he is entitled as an ex-public servant.—Sir Julian Orde, secretary of the Royal Automobile Club, who is on a visit to the island, stated in an interview given to the *Gleaner*, that he intended to make an official report to his club on the roads and scenery of Jamaica. He added that he was disappointed to find that the great bulk of the cars used in the island were of American make, a matter he intended to bring before the home manufacturers. He thought the local price of petrol far too high, seeing how near they were to great supplies.—Mr. T. H. MacLernot read an interesting paper at Gayle on December 1st, on the Constitution, which the lecturer submitted had been outgrown and should be extended on popular lines. On December 2nd a conference of the various Parochial Boards was held at which the points to be submitted to Mr. Wood were decided, including questions of taxation, health and vagrancy. A committee formed to afford relief to distressed Jamaicans in Panama, has been able to send over £100 already in this cause.

The Rev. Wilmot A. Bryan, writing from s.s. *Patuca* on November 26th, gives an interesting account of a meeting which was held on board during the voyage out to Jamaica on the evening of Wednesday, Nov. 23rd, the subject of discussion being "The Confederation of the West Indies." The Bishop of Jamaica, who was then on his way to the island, presided. The principal speaker was Sir Alexander Swettenham, a former Governor of Jamaica. Other speakers were the Rev. J. Curran (Wesleyan) and the Hon. W. P. Sangster. It was pointed out by the latter that both in politics and economics the interests of all the islands were practically at one. But the chief obstacle in the way of the scheme would seem to be a natural or physical one, that of the distance of the islands from each other, and the difficulties of communication. On this ground the feeling of the meeting was against the scheme. Nearly all the passengers were present, among whom were several Jamaica residents.

St. Vincent Cotton Sales.

A letter has been circulated among planters, expressing the regret of the British Cotton Growing Association that West Indian cotton has been sold recently in America at 21d. to 23d., and stating that this cotton should be always equal to best Sakellarides, which is quoted at 34d. to 35d. Although the Fine Spinners have enough cotton for two years, the Cotton Growing Association state that they have recently been able to dispose of 1,000 bales from various of the Islands for 34d. to 38d., but owing to the sales to America, the price has dropped. Commenting on this, the *Times* says that the planters were not to be blamed, for the Leeward Islands growers had practically a year's crop in England unsold, whilst 23d. at Montserrat represented 34d. at Liverpool.

A Tobago—New York Service.

Mr. Robert S. Reid, writing on November 30th, states that the total rainfall for the month is under six inches in his district. The young cacao crops look favourable, and light pickings are being made. Owing to low prices, development work is being curtailed, which, it is feared, may check the progress of the Island. The unemployment question is not likely to be serious, as so many of the peasant proprietors and contractors can almost subsist on the produce of their gardens, whilst suggestions are being made to the Government that now is a favourable time to proceed with development work, for which funds are provided under the £1,000,000 loan.—A meeting has been arranged to take place at Scarborough between a representative of the Clyde Steamship Line and the Planters' Association and general public to discuss the prospects of a monthly call of their steamers at Tobago en route for New York. A service under the Canadian contract would probably be more useful both for cargo and passengers, and it is suggested that the Canadian steamers might be used as the Inter-Colonial Mail connecting with the Trans-Atlantic service, which would have the effect of economising in the latter and enable the British West Indies to contribute more freely to the Canadian service. Meanwhile, the Clyde Line is prepared to send their steamships to Scarborough if about 100 tons of cargo are guaranteed, and have offered to assist in marketing the produce in New York. The freight rates would be the same as from Trinidad, and the Port of Spain transhipment expenses avoided. The question resolves itself into one of the provision of suitable storage barges at Scarborough, and the planters combining to supply the necessary cargo.

Trinidad.

Sir Francis Watts, Dr. Farmer and Mr. H. A. Ballou have arrived from Barbados in connection with the establishment of the West Indian Agricultural College. During their stay they will be the guests of the Acting Governor at Government House. On November 28th, in company with Mr. W. G. Freeman, the party paid a visit to St. Augustine to determine the exact site for the College residences.

On the eve of his retirement, Mr. Hancock, Director of Education, has reviewed the educational progress of the colony. Since the Education Commission of 1914 many important improvements have been effected, but certain of the Commission's recommendations have still to be put into force.

INDIA AND BRITISH GUIANA.

The Indian delegation which is to visit British Guiana to investigate the opportunities offered there to Indian colonists, has arrived in London and will leave for Georgetown this month. It comprises Dewan Bahadur P. Kesava Pillai, M.L.C., Deputy President of the Madras Legislative Council; Mr. Gerald Francis Keatinge, C.I.E., of the Indian Civil Service, and Pundit Venkateah Narayan Tiwary of Allahabad.

The visit of this delegation is the outcome of the British Guiana Colonisation movement of 1919, when, it will be recalled, an influential deputation from British Guiana came to England to urge the resumption of Indian immigration, on a free basis.

SOME COMPANY NOTES.**The Antigua Sugar Factory, Limited.**

The directors, in their second annual report, which covers the year ended September 30th, 1921, state that the crop season of 1921 had been the most anxious and difficult time since the factory was erected. Occasionally in Antigua there is a year without "pond rains," and they were protected against trouble from this by their ample water storage capacity, but the island had now gone through two years without "pond rains." Such a prolonged drought had not been experienced within the memory of the inhabitants. The want of water seriously interrupted the work of the factory; in many weeks it could only manage half a week's work, and it had to stop entirely for a considerable time. With the aid of a spring the grinding of all the canes on contracting estates was completed. The purity of the juice averaged slightly over 82 per cent. for the season, but at the time when the factory resumed grinding after a stoppage, and had then only fresh cane, all the cut canes having been ground before the stoppage, the purities were 85 to 86 per cent.

The following figures give the results of the year and a comparison with previous years:—

	1921.	1921.	Average of 1915-1919.
Canes	Tons 80,182	98,793	90,180
Sugar	8,949	10,638	9,904
Sucrose in Cane	13.02	13.02	12.57
Fibre in Cane	17.73	16.90	16.66
Sucrose in Molasses	3.33	3.09	2.79
Purity of Juice	82.15	82.92	83.70
Recovery of Sucrose in Canes	82.36	83.62	83.90
Yield of Sugar	11.15	11.35	10.98
Price of Sugar per ton	£268.3	£37.04	£19.125

A serious loss was incurred owing to the Government of Antigua having embargoed 300 tons of our sugar beyond what was required for local consumption, notwithstanding the protests of our manager. On their releasing it later on, when the market had fallen heavily, the Royal Commission, to whom they had sold the entire crop less any portion embargoed, declined to accept the sugar under their contract on the ground of late delivery. The result of the sugar showed a loss of £1,500. A further considerable loss was incurred through the failure of a buyer in U.S.A. to carry out a purchase of molasses.

The profit and loss account shows a surplus of £17,788 18s. 7d., to be allocated as follows, in terms of the agreements:—

To planters—£8,891 9s. 3d., equal to 2/3.377 per ton of canes, making a total payment of 31/8½ per ton; to shareholders, £8,891 9s. 3d.

The amount remaining at the credit of the shareholders, after additions and deductions shown on the balance sheet, is £30,565 1s. 11d. The directors recommend the payment of a dividend of 8 per cent., which will absorb £15,498 17s. 7d., and leave a balance of £25,066 7s. 4d., subject to Excess Profits Duty for 1920, Income Tax and Corporation Profits Tax.

The Demerara Railway Company.

A cable has been received from Demerara stating that the Ordinance confirming the agreement with the Government of British Guiana for the purchase of the company's railway has now been passed. By the agreement of sale the purchase was to be completed by the 31st. After completion the directors will be in a position to pay the dividends on the company's preference stocks for the whole year ending December 31st, 1921, to the holders of those stocks on the company's register at the close of business on the 31st inst., and dividend warrants will be sent out as soon thereafter as possible. Upon the winding up of the company's affairs the surplus will be accounted for to the

holders of ordinary stock on the company's register at the closing of business on December 31st. The annuities to which the stockholders are entitled will bear the designation "British Guiana (Demerara Railway) Permanent Annuities." These annuities are payable on June 30th and December 31st. The first payment will be made by the Crown Agents on June 30th next. They will be transferable by deed. All transfers and other communications relating to them must be sent to the Crown Agents for the Colonies, Millbank, S.W.1.

St. Kitts (Basseterre) Sugar Factory, Ltd.

The tenth annual report, which covers the year ended September 30th, 1921, states that the crop was very short, being 20 per cent. below last year, principally owing to long drought in the early stages of growth of the canes. There had also been a heavy drop in the sugar market. In consequence of these circumstances, the profits of the year had been cut down to less than one-third of those of last year, but, on the other hand, the Excess Profits Duty had now come to an end, and the net profit left with the company was not very different from last year's net amount. The following figures give the results of the year and a comparison with previous years:—

	1917.	1918.	1919.	1920.	1921.
Canes Tons	97,372	62,354	81,078	86,731	73,102
Sugar "	11,843	7,314	8,814	10,037	7,097
Sucrose in Cane %	13.38	13.02	12.11	12.80	12.18
" " Megass "	2.60	2.50	2.54	2.51	2.52
Purity of Juice "	85.5	86.2	84.	83.4	83.6
Recovery of Sucrose in Cane	87.08	86.55	86.20	86.62	86.02
Yield of sugar 96% "	12.16	11.73	10.87	11.57	10.94
Price of Sugar per ton	£18 13 2	£20 9 1	£25 0 0	£27 15 4	£27 4 8

After charging revenue with £18,000 for interest and sinking fund on debentures, and additions to sinking fund, there remains a surplus of £30,982 4s. 8d., to be allocated as follows:—To original contractors, £18,496 2s. 4d., giving a supplementary payment of 5/7 per ton, making a total of 31/6d.; to "A" shareholders, £17,646 10s. 2d.; to factory staff fund, £849 12s. 2d. The amount remaining at the credit of the "A" shareholders, after additions and deductions, as shown in the balance sheet, is £24,044 16s. 6d. The directors recommend the payment of a dividend of 3/- per share, which will absorb £9,750, and leave a balance of £24,294 16s. 6d. subject to Income Tax and Corporation Profits Tax. The directors have received applications from planters in the northern district of the island to join the factory, and they are having a survey for a railway made, which they hope will enable them to meet their wishes.

Ste. Madeleine Sugar Company, Ltd.

The directors, in their second annual report, for the year ended June 30th, 1921, state that they regret that the result of the year's working showed a heavy loss, partly owing to short crops, but more to unprecedented economic conditions. The short crops were due to serious damage by frog-hoppers and unfavourable weather during the growing season. Further loss arose from heavy rains in the crop season, which continually delayed the reaping and dragged it on until July 11th, a month beyond the proper time, adding greatly to the expenses. The company's estate canes fell below the average of the seven previous years by 25,000 tons, or 24 per cent. The general economic conditions for the past crop were disastrous throughout the West Indies. The extreme sugar prices in 1920 resulted in the cost of production rising to an exorbitant height. Owing to labour getting out of hand the high costs were maintained throughout this season, while, on the other hand, the prices for sugar dropped heavily. The conditions in Trinidad were worse than elsewhere.

The company's manager writes: "The opening of the year 1920-21 found Trinidad in a very hysterical condition. Sugar was two or three times higher than what anyone had ever dreamed of; cocoa was also booming, and oil companies were springing up everywhere and bringing out large staffs, which had to be housed, fed, and transported about the country. No one seemed to realise the value of money, and ridiculous prices were paid on all sides. Oil companies were drawing on labour for roads and dams, and cane farmers were employing those who would otherwise have been available for estates. From this it will be seen that labour had the whip-hand, and employers with work to be done had to take what they could get and be thankful."

The following figures give the results of the year and a comparison with previous years:—

	1917	1918	1919	1920	1921	
Canes grown, Tons	117,511	95,442	95,570	93,495	83,151	
" purchased "	116,346	70,466	70,450	82,177	102,128	
	233,857	174,928	166,020	175,672	185,279	
Sugar made	24,472	16,643	16,482	17,510	17,741	
		1917	1918	1919	1920	1921
Sucrose in Cane ... %	12.56	11.29	11.69	12.09	11.45	
" " Megass ... "	3.95	3.30	3.46	3.38	3.29	
Purity of Juice ... "	80.5	79.6	80.5	79.54	80.39	
Recovery of Sucrose ... "	80.53	81.14	81.50	78.86	80.80	
Yield of Sugar 96 deg. ... "	10.55	9.51	9.93	9.97	9.63	
Estate Canes, per acre, tons	23.35	19.62	19.44	21.37	19.72	
" Sugar "	2.46	1.86	1.93	2.13	1.90	

After taking credit for amount estimated to be recoverable on account of Excess Profits Duty, the balance standing to the debit of profit and loss account is £148,985 1s. 4d., as shown in the accounts. Deducting from this the sum of £33,156 12s. 6d., being the net amount carried forward from the previous year, the deficit in profit and loss account stands at £25,228 8s. 10d. In order to finance the company's operations during the year 1921-22, the board found it necessary, under the powers given by Article No. 18, to authorise the creation of £200,000 10 per cent. debentures, redeemable at 110, of which they have allotted £100,000 to the company's bankers as collateral security for advances, and £50,000 were issued to subscribers for cash at par. The above figures do not appear in the accounts submitted herewith, as the issue was not made until after the close of the past financial year.

The cost of production for the new year, 1921-22, will show a large reduction. Wages have fallen to a reasonable level, and the labourers are working better. The prices of fuel, bags, engineering and other stores are also much lower, and the Trinidad Government has announced that the agricultural, immigration and produce taxes, which cost the company £18,800 in the past year, will not be imposed on 1922 crop.

Presiding at the meeting on December 23rd, Mr. Moody Stuart said that he much regretted submitting a report which showed such a heavy loss on the year. At the date of the last annual meeting it was expected that the revenue for this year would be ample enough to give a good profit, but the crop fell short, and prices of sugar fell far short of expectations, while the expenditure exceeded estimates. In 1920 Cuba was, apparently, in a condition of great prosperity, but the lean year 1921 had eaten up the fat year 1920, and to-day proprietors were impoverished and labourers starving. That was the position in the great centre of the West Indian sugar production, and, unfortunately, what happened in Cuba governed the prices of sugar, and, to a large extent the conditions of labour, for all interested in the industry.

It must be difficult for anyone not in the sugar market to realise the extent of the market changes and the rapidity

of these changes, and how impossible it was to foresee them. A lurid light was thrown on them by the experience of the Royal Sugar Commission in its purchase of the Mauritius crop of last year. The Commission bought that crop for £18,000,000, and its value on arrival was £5,000,000—his figures were a rough calculation, probably not far out—so that there was a depreciation of £13,000,000, or nearly three-quarters of the value, between the date of purchase and date of arrival. Such times had never been passed through before, and he thought they would never see the like again. They had severely shaken some of the biggest sugar concerns in the world.

The motion for the adoption of the report and accounts was adopted after some discussion.

Trinidad Leaseholds, Limited.

Presiding at the annual general meeting on December 22nd, Mr. T. J. Milner, after reviewing the accounts, which were summarised in last CIRCULAR, said that towards the close of the financial year, and for some time thereafter, drilling on Forest Reserve was much retarded by exceptionally heavy rains, the roads at times being rendered quite unfit for heavy transport. Recent results, however, showed a marked improvement, last month's return being 18,000 tons. This total was equal to their previous record production. The increase was attributable to the substantial yield from a new well brought in late in October, to which he would refer later.

There was little of importance to record as regards the Barrackpore field, which continued to give a steady production.

Drilling difficulties in well No. 1 on the Piparo field led to its abandonment at 1,184 ft. No commercial production was obtained, although a show of high-grade oil was encountered at a shallow depth. A new well, located nearby, was down to 1,382 ft., and drilling was being continued. From their experience and that of several other companies, drilling was by no means easy in that neighbourhood, owing to heavy gas pressure and swelling clays. Their technical staff continued to devote the closest study to the problem of dealing with the heavy gas pressures and leaving sands.

After referring to the development of the refinery and plant, he said that they had been under contract to supply the Admiralty with the main portion of their fuel oil, and this engagement expired in September next. The price they received originally was very low compared with present standards, but it was revised in July, 1920, on a sliding scale, based on American crude quotations. While prices in the States remained at the level ruling during the second half of 1920, they secured a considerable advantage over the original contract terms, but when the slump in American prices came, which began in January last, all this advantage was lost, and during the present year the Admiralty price had been very low indeed. Quotations for certain grades of American crude fell during the first six months of the present year over 70 per cent.

During the past few months crude prices in the States had in many cases regained a substantial portion of the fall, indicating that the oil industry was gradually recovering from the effects of over-production. As a result of this rise their present Admiralty price was considerably above the lowest. He was pleased to inform them that a new contract with the Admiralty had recently been arranged for a minimum period of three years. It would come into force in April next, and provided not only for a substantially larger annual delivery of fuel oil than under the existing contract, but the price basis was much more advantageous to their company. The present contract would be completed, but deliveries in excess of the quantity for which it provided would come within the scope of the new arrangement.

The motion that the report and accounts be adopted was carried.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

FEDERATION.

Sir,—As the old year slowly prepares to take its place with its companions of centuries, but not without having left its ineffaceable impress on the many activities of man, as seen in the "Disarmament Conference" in Washington, the partial solution of the Irish question, the disquieting conditions in Egypt and in India, and in the so far very successful travels of H.R.H. the Prince of Wales, there looms on the horizon the pleasing and promising spectacle of "Greater powers of local self-government for the West Indies." It is truly significant of the vagaries of Nature that while the Empire views with deep concern the discordance of political associations in the East, it welcomes the peaceful outlook of conditions in the West, and extends to its Western peoples the much craved for chance for a broader development of local manhood and womanhood, thereby creating a profounder and more lasting sense of loyalty and friendship to a commonwealth whose ennobling triumvirate of fairness, justice and freedom makes it the envy of nations and empires.

The recommendation for the extension of broader and greater powers of self-government for the West Indian Islands by the Parliamentary Under-Secretary for the Colonies, Mr. Edward Wood, M.P., will, if realised, be conducive to a better understanding between the darker races of the Empire and those in authority, and must tend to the establishment of a wider spirit of general sympathy with native aspirations by the powers that be. The way will be made clearer for fuller self-development of the islanders and a greater desire among the islands for closer political and commercial union, a *sine qua non*, if the Indies are to faithfully remain a strategical section of the Empire, with which they have been linked for centuries, will be maintained. This latter condition is most desirable when one recalls that some of the bravest of Britain's naval and military men have given their lives in an effort to unite these Atlantic "oases" to the great British family of nations, and in no less a sacrificing measure have the native sons repeatedly shown their appreciation of this family unity by being ever willing to shoulder arms beside their British comrades in defence of all that is dear to the Empire.

Could human sense of gratitude forever ignore repeated acts of loyalty, unselfishness and sacrifice? Separation and even death were greater rewards than continued political enthrallment and developmental limitations. But the brighter day is dawning for 1922 and ever after, and the fulfilment of the cherished hopes of thousands of islanders at home and abroad will be realised, and the appreciation of the extension of greater political and commercial powers should lead to the one and only saving condition for the islands, that of *Federation*, without which the much-suggested political union with Canada or with any other member of the Empire remains an improbability, and Universal and even Empire respect a secondary matter.

There are undeniably men of ability, integrity, responsibility and true loyalty in these islands into whose custody, I venture to suggest, that even the

care of the British Commonwealth could to-day be safely entrusted, much less the care of conditions insular, and who, if a fair chance, unfettered by distrust and patent suspicion, be given them, will give the most creditable account of themselves in steering the governmental W. Indian bark clear of catraacts and shoals.

To the influence of your ever vigilant and progressive Committee a large share of credit must be extended for the visit of the Parliamentary Under-Secretary of the Colonies to the West Indies, and indirectly for the great benefit thus promised, resultant of the personal impressions there received.

I am, Sir,
Yours faithfully,
R. WELLESLEY BAILEY, M.D.

57, New Cross Road,
New Cross, S.E.14.
27th December, 1921.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes Ltd.

Sailings to West Indies from Avonmouth, in R.M.S. *Coronado*, December 31st:—

The Misses Anonoth (2)	Mr. W. W. F. Gouda	Mr. T. J. Redhead, M.C.
Mr. C. Atkins	Mr. & Mrs. D. M. Hahn	Miss A. M. Roberts
The Misses Atkins (2)	Miss H. Hahn	Mr. A. M. Rodheaux
Captain H. A. Baker, M.C.	Mr. J. H. Haigh	Mr. & Mrs. A. W. Rogers
Major H. Standish Ball	Mr. E. Hancock	The Marquess of Salisbury, K.G.
Miss G. E. M. Beasley-Robinson	Mr. A. Hasley	Mr. & Mrs. J. N. E. Sanderson
Mr. & Mrs. R. Beaumont & fam.	Mr. A. I. Hearn	Mr. & Mrs. F. Sims
Miss G. B. Blackland	Mrs. J. J. Higgin	Miss P. M. N. Howell
Mr. & Mrs. J. V. Burn-Murdoch	Mr. & Mrs. W. H. Howell	Mr. R. Jamieson
Captain G. L. Campbell	Mr. & Mrs. W. M. Howell	Miss L. F. Johnston
The Misses Carrington (2)	Mr. & Mrs. W. M. Howell	Hon. J. Challenger
Mr. N. Cogland	Mr. & Mrs. W. M. Howell	Mr. & Mrs. R. S. Lynch
Mr. H. E. Crum-Ewing	Mr. J. F. Lynch	Mr. J. C. A. Maxwell
Miss C. B. Crum-Ewing	Mr. J. F. Lynch	Miss E. McCallum
Mr. & the Hon. Mrs. H. C. M. Daniell	Mr. & Mrs. G. A. Maxwell	Mr. V. A. Miller
Miss I. M. Damon	Mr. & Mrs. G. H. C. Miller	Mr. & Mrs. G. Moody
Mr. T. H. Davies	Mr. & Mrs. G. Moody	Miss E. Moody-Stuart
Sir Edward Davson	Miss E. Moody-Stuart	Mr. E. Newton
Dr. & Mrs. C. G. Gooding	Mr. E. Newton	Lady Beatrice Omsby-Gore
	Lady Wilson	Miss D. Pitt
	The Misses Wilson (2)	
	Lady Dorothy Wood	
	Miss Doll Wyllie	
	Wilson, K.R.E., C.M.G.	

Sailings to Jamaica from Avonmouth, in s.s. *Patuca*, December 26th:—

Miss M. E. Beanland	Mr. A. N. Davidson	Mr. & Mrs. J. M. O'Connor
Miss E. E. Benson	Mr. & Mrs. E. N. Mair	Ms. G. Orr
Colonel & Mrs. H. Brown	Baroness Maltrabn	Mr. E. H. Strammers
Major R. L. Bullock	Mr. W. McMillan	Mr. L. J. Stone

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in s.s. *Crysanor*, December 21th:—

Dr. & Mrs. Alexander	Mr. A. Gokool	Miss E. Rains
Miss Arnold	Mr. A. Higgs	Miss S. Talaine
Mr. E. Burgess	Mr. R. Jones	Mr. Thompson
Mr. Mrs. & Miss Doyle	Mr. McCunney	Mr. W. Wilkes
Mr. & Mrs. S. R. Drayton	Mr. & Mrs. Murray	Mr. & Mrs. A. E. Williams & fam.
	Mr. A. Nurse	
	Mr. H. R. Piddock	

Thos. & Jas. Harrison.

Home arrivals from West Indies, in s.s. *Specialist*, London, December 23rd:—

Mr. A. Corral	Miss Langley	Mr. T. E. McQuade
Mr. C. B. Jones	Mr. A. G. Martin	Mr. H. R. Seubling
Rev. & Mrs. W. F. Langley		Mr. W. Smith

VISITORS FROM OVERSEAS.

Visitors from the West Indies are invited to register their addresses at the West India Committee Rooms, 15, Beetham Lane, London, E.C. By doing so they will facilitate the forwarding of their correspondence. Among those at present registered are:—

Mr. S. Archer	Mr. E. T. Greg
Dr. R. Wellesley Bailey	Mr. Ralph R. Hall
Mr. L. Lambert Bell	Mr. Albert T. Hammond
Brigadier-General J. A. Bell	Mr. E. E. C. Mosack
Smythe, C.R., C.M.G.	Mr. W. T. Humphrey
Sir Henry A. Dorell	Mr. H. Thompson King
Mr. James Brown	Mr. P. Kirkness
Mr. A. S. Burleigh	Mr. H. N. Leacock
Mr. J. W. Cathcart	Mr. Donald MacDunn
Mr. Gerald O. Chase	Hon. Mr. Justice W. E. McNeill
Mr. Albert Cherry	Mr. R. Nicol
Dr. J. H. Cooke, B.A., M.B.	Mr. John O'Connor, M.C.
Mr. W. P. Kibbie	Hon. T. W. R. O'Neal
Mr. A. Grey Kicket	Dr. F. G. Pilgrim
Mr. C. G. S. Kivey	Mr. J. H. Rapsay
Mr. J. J. Evans	Lieut. W. M. Richards
Mr. A. J. Foulday, M.A.	Mr. T. Gordon Rose
Hon. H. Ferguson	Mr. Evans J. Scott
Mr. J. J. Fraser	Mrs. H. H. Sealy
Dr. E. H. Grewson	Mr. Frederick Williams
Mr. Gordon Graham	Mr. N. Macleod Innes, West View, Millingvie, N.B.
Mr. N. Macleod Innes, West View, Millingvie, N.B.	Mr. John M. Fleming, The Hamlets, Hadlow, Kent.
Mr. John M. Fleming, The Hamlets, Hadlow, Kent.	Mr. Archibald Gordon, du Messis, John Leckie & Co., 84, Fore Street, E.C.
Mr. Archibald Gordon, du Messis, John Leckie & Co., 84, Fore Street, E.C.	Mr. A. M. Reid, South Cerney, Cirencester, Glos.
Mr. A. M. Reid, South Cerney, Cirencester, Glos.	Mr. H. Hill Style, Crediton, Devon.

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailings
B'dos & T'dad	Dover	Orange Nassau	Jan. 7
J'acs & B'mas	Glasgow	Median	" 7
Jamaica	Liverpool	Mansanarez	" 9
Jamaica	Liverpool	Chirripo	" 9
B'dos & T'dad	Liverpool	Oranian	" 10
West Indies	London	Ingoma	" 13
Jamaica	Bristol	Canito	" 16
West Indies	New York	Parima	Jan. 25
Bahamas	New York	Siboney	" 28
G'das, T'dad & Demerara	New York	Maraval	" 31
West Indies	Halifax	Carnquet	Feb. 3
B'mas, J'acs & B. H'das	Halifax	Canadian Forester	" 3

WEST INDIAN SECURITIES. LATEST QUOTATIONS.

Div. 4 1/2%	Antigua	4	Redeemable 1915-44	100.2
4 1/2%	Barbados	3 1/2	Redeemable 1925-42	105.87
4 1/2%	British Guiana	4	Redeemable 1935	101.84
4 1/2%	British Guiana	4	Redeemable 1923-43	101.81
4 1/2%	Guayana	4	Redeemable 1917-44	101.72
4 1/2%	Jamaica	4	Redeemable 1944	101.42
4 1/2%	Jamaica	4 1/2	Redeemable 1919-49	101.08
4 1/2%	Jamaica	4	Redeemable 1922-44	101.50
4 1/2%	St. Lucia	4	Redeemable 1919-44	101.69
4 1/2%	Trinidad	4	Redeemable 1917-42	101.74
4 1/2%	Trinidad	4	Redeemable 1922-44	101.62
10%	The Colonial Bank			101.1
8%	Royal Mail Steam Packet Co. Ordinary			103.87
6%	Angostura Bitters Part. Preference			72.32
6%	New Trinidad Lake Asphalt Co. 6% Debentures			108.110
7%	Consolidated Rubber and Balata Estates Pfd.			24.4
—	St. Madeleine Sugar			—
—	Anex (Trinidad) Oilfields, Ltd.			33.9
—	Petroleum Options, Ltd. 10%			110
10%	Trinidad Central Oilfields			20
—	Trinidad Dominion Oil, Ltd. 10%			81
12%	Trinidad Leaseholds, Ltd. 12%			10.75
—	United British Oilfields of Trinidad, Ltd.			14.6
—	General Petroleum of Trinidad			7.3
4%	Demerara Railway Company Ordinary Stock			10.40
7%	Demerara Railway Company 7% Perp. Pref.			100.105
4%	Demerara Railway Company 4% Ex. Pref.			87.62
4%	Demerara Railway Company 4% Debenture			53.55
—	W. I. and Panama Tel. Co., Ltd., Ordinary			1.1
—	W. I. and Panama Tel. Co., Ltd., 6% Cum. Int. Pref.			11.11
—	W. I. and Panama Tel. Co., Ltd., " 2nd			11.11
—	W. I. and Panama Tel. Co., Ltd., 5% Debentures			80.85

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6042.
Telegrams—
"Carib. London."



15, SMITHING LANE,
LONDON, E.C. 3.
January 3rd, 1922.

Owing to the Christmas Holidays, little or no business has been done in the various markets since the date of last Summary.

BANK RATE. Five per cent. as from November 3rd.

EXCHANGE. Value of the £ Sterling.

	Dec. 20th	Jan. 3rd		Dec. 20th	Jan. 3rd
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To U.S.A. ...	17 3	17 3	In Spain ...	1 0 2	1 2 2
.. France	2 1 4	2 0 9	.. Germany	37 18 7	37 12 0
.. Belgium	2 3 3	2 3 2	.. Austria	458 10 0	454 0 0
.. Italy ...	8 18 3	8 0 7	.. Holland	18 1	18 0

The intrinsic value of the gold sovereign is £1 3s. 8½d.

SUGAR. There has been a further drop in the New York market during the fortnight, sales of Cubans having been made, on the 28th at 3.36 duty paid landed, equivalent to 1.60c., C.o.b. Cuba, which is a record low price as regards 96 deg. sugar. There was, however, a slight reaction on the following day, prices advancing to 3.48c. Owing to the New Year's holiday, there was no quotation yesterday.

Futures closed on the 29th at: March 2.00, May 2.24, and July 2.41.

In the Home Market, the refiners lowered their spot price on the 27th ult. by 9d., the value of granulated being reduced to 45/6. Spot American granulated was quoted on the 30th at 45/9. West Indian crystallised was quoted at the same date at from 38/- to 40/-, and imitation yellow crystals were reduced to 41/-. The c.i.f. price of 96 deg. is about 10/8, sales having been previously made at 10/6, as against preferential sugar at 64/- c.i.f. White Java on the spot has sold at 45/6.

The Terminal Market quotations on the 30th were:—

	Feb.	Mar.	May.
White ...	11/3	11/6	11/6½
...	16/9	16/11½	16/11½

The market has been closed since that date.

The West Indian sugar statistics in London on December 24th were:—

	1921	1920	1919
Imports ...	46,897	62,065	50,387 Tons.
Deliveries ...	50,346	61,223	48,393
Stock ...	4,955	8,068	8,136 "

RUM. The market remains lifeless, both for home trade and for export. Prices are all nominal.

The stocks in London on December 24th were:—

	1921	1920	1919
Jamaica ...	10,934	9,388	6,708 Puds.
Damascus ...	17,440	14,987	15,222 "
Total of all kinds	38,275	34,546	28,809 "

CACAO is quiet and unchanged. West Indian sorts remain at: fine Grenada 50/-, Trinidad 32/- to 60/-, Jamaica fine 47/- to 50/-.

The stocks in London on December 24th were:—

	1921	1920	1919
Trinidad ...	19,637	29,658	25,583 Bags.
Grenada ...	13,288	21,291	13,806 "
Total of all kinds	32,925	50,949	39,389 "

ARROWROOT is dull and without change at 3½d. to 4d.

BALATA is quiet. West Indian is valued at 3/7 to 4/8 spot, or 3/5 c.i.f., near positions.

BAY OIL. There is no fresh business to report.

COFFEE. Public sales, which were closed on December 20th, will be resumed on the 5th inst. Only a small business is passing privately. Fine Blue Mountain has sold at 200/-.

COPRA is dull, and very little business doing. West India C.M.S. is quoted at £26 10s., c.i.f. London.

GOTTON generally is in fair demand, but West Indian Sea Island is neglected. Prices are unchanged at: medium 26d., fine 34d., and extra fine 12d. Imports in the 52 weeks ended December 29th, 1,932 bales.

HONEY. Since the last public auctions in November, honey has remained very quiet, and prices are unchanged. It is improbable that the extreme rates paid for fine white set Jamaica (up to 97/6) would be obtainable to-day.

LIME PRODUCTS. **Lime Oil.** Handpressed remains unchanged, with sellers at 15/- per lb., but there are no buyers. Distilled remains quiet, with no sales reported. **Lime Juice.** Concentrated continues quiet, and no business has yet been done. There is nothing doing in Raw, but good qualities are scarce. Quotations are quite nominal.

LOGWOOD is dull and unchanged.

ORANGE OIL. There is no change or business to report in either Sweet or Bitter.

RUBBER. Although the market has been quiet owing to the holidays, the undertone has been decidedly firm. Spot crepe 11½d., spot sheet 11½d.

SPICES. Business has been done in **Pimento** for January-February shipment at 19/-, c.i.f. Hamburg. There are spot sellers at 2½d. to 2 5-16d. **Ginger** is firm, but nothing is offering on spot.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—

Barbados (Messrs. Wilkinson & Gaviller), January 3rd: "Good showers generally throughout the island."
Demerara (Messrs. Curtis, Campbell & Co.), December 30th: "We have had more rain since last message."

The charge for the announcement of Births, Marriages and Deaths is 3/6 for three lines and 1/- for each additional line. Cheques, postal orders, etc., should be made payable to THE WEST INDIA COMMITTEE CIRCULAR, and crossed "Colonial Bank."

MARRIAGE.

DRIVER-STAPLETON.—On December 31st, at St. Andrew's Church, Nottingham, by the Rev. C. Baggeley—uncle of the bride—John Edmund, youngest son of Mr. and Mrs. Fred. Driver, of Beeston, to Gwendoline, daughter of Mr. and Mrs. A. Stapleton, of Nottingham.

It is remarkable how badly informed great public men frequently are on the subjects they talk and write about. Thus Lord Rothermere, in a recent number of the *Sunday Pictorial*, speaking of our sugar-growing possessions, states that the United States takes the bulk of the West Indian sugar. The facts are that in the years 1914-19 no sugar was imported into the United States from the British West Indies, and in the year ending June 30th, 1920, only 13,000 tons. The latter was the period of phenomenal prices due to the Cuban "hold-up," when sugars from all parts of the world were purchased by the United States refiners, and when the British West Indian output was about 260,000 tons.

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The West India Committee Rooms.

Telephone:
CENTRAL 5542.

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CARIB. LONDON.



15, SERPENTING LANE,
LONDON, E.C. 3.
January 17th, 1922.

The Question of Income Tax.

IT is probable that those who have to administer the Income Tax Laws in the West Indies will be as glad as we are to learn that the Secretary of State for the Colonies has adopted the suggestion of THE WEST INDIA COMMITTEE, and has appointed an Inter-departmental Committee to consider the complicated question of income tax in the United Kingdom and the Colonies, with special reference to the position of "non-resident" companies and individuals. In principle the arrangement at present in force is simplicity itself. Where companies and individuals are assessable to income tax in a colony as well as in the United Kingdom, the rate of the colonial tax, up to one-half of the United Kingdom rate, is deducted from the rate payable in the United Kingdom. Where, on the other hand, the rate of the colonial tax exceeds one-half of the United Kingdom rate, relief in respect of the excess is afforded in the colony. Thus a taxpayer assessed at, say, 6/- in the £ in the United Kingdom and 8/- in a colony, would pay 8/- in the United Kingdom and 3/- in the colony; and if assessed at 6/- here and 4/6 in the colony, he would pay 8/- here and 3/- in the colony. Unfortunately, this system in practice is not so simple as it looks, owing to the absence of uniformity in Income Tax legislation in the United Kingdom and in the Colonies, which makes it a practical impossibility to arrive at any true basis of comparison. Thus, while companies in the United Kingdom are assessed on their average profits of the three preceding years, they are assessed in the colony on those of the preceding year. Again, whilst in the United Kingdom the income tax year runs from April 6th to April 5th, it is the calendar year in the colonies. Moreover, the old system of a sliding scale of allowances has been adopted in the Colonies, whilst in the United Kingdom this has been replaced by what is virtually

a flat rate of tax; all individual taxpayers enjoying certain statutory allowances, whether their income is £200 or £20,000. It may readily be imagined that these discrepancies must make the position of an assessor in the West Indies no less than that of the unfortunate "non-resident" taxpayer by no means an enviable one. This, however, is only the fringe of the subject, and many anomalies will have to be removed before the harmonious working of the Colonial with the United Kingdom income tax laws can be assured. Every day fresh surprises are sprung upon the taxpayer, the latest suggestion, for example, being that in British Guiana banks should be assessed on the assumption that their profits made in the colony bear the same relation to the total profits of the Bank as their assets in the colony bear to their aggregate assets. Thus an English bank making an actual loss in British Guiana might be assessed as having made a profit, because it made a large profit elsewhere! The Imperial Exchequer would thus be sacrificing to a colony tax on income not derived from that colony. The British Guiana Income Tax Bill has, however, been thrown out, and we need not, therefore, now pursue this subject. We have been informed by business firms that the present state of affairs in relation to the question of double taxation is little short of chaotic, and that a determined attempt appears to be being made at present to collect the tax at the full rate both in England and in the colonies, leaving the unfortunate taxpayer to claim what he can, where he can. It is, therefore, much to be hoped that arrangements may be made for an income tax expert to visit the West Indian colonies in order that steps may be taken to reduce the present income tax legislation to some degree of uniformity of practice with that of the United Kingdom. Jamaica already has the advantage of having such an expert in Mr. RICKMAN, who, we gather, is too busily occupied to extend his activities in other colonies, and the benefit of his knowledge is shown by recent amendments to the income tax laws of that colony. We hope that other West Indian colonies will similarly have the advantage of expert advice which will help them to solve the very complicated problem with which they are faced. Meanwhile, we welcome the appointment of the Inter-departmental Committee, with SIR GILBERT GRINDLE, himself a Barrister-at-Law, as Chairman, three representatives of the Board of Inland Revenue, namely, Mr. EVERELL, Mr. BLATCH, and Mr. BROWERT, and the two legal advisers of the Colonial Office, Mr. BUSIE and Mr. EHRHARDT, with Mr. E. R. DARNLEY, Principal of the same department, "watching the case" on behalf of the West Indian colonies, and it will be surprising if it does not succeed in devising means of relieving a situation which is rapidly becoming almost intolerable in its complexities.

THE DIRECTOR OF KEW.

Mr. Arthur Hill's Appointment.

Mr. Arthur William Hill, F.R.S., M.A., Sc.D., F.L.S., has been appointed successor to Sir David Prain, C.M.G., C.I.E., F.R.S., Director of the Royal Botanic Gardens, Kew, who will shortly retire. Mr. Hill, who was previously Fellow and Dean of King's College, Cambridge, and University Lecturer in Botany, has been Assistant Director of the Gardens for the last fourteen years. In 1912 Mr. Hill made an extended tour in the West Indian Colonies, and it will be recalled that he was one of the members of the Tropical Agricultural College Committee. As Director of Kew he will now, no doubt, be appointed a member of the Governing Body of the West Indian Agricultural College, to which his West Indian experience should prove particularly valuable, but it is hoped that Sir David Prain will, in his private capacity, retain a seat on the Governing Body, which has already gained such substantial advantage from his wise counsels and varied experience.

THE ENDOWMENT FUND.

The total of The West India Committee Endowment Fund has now reached £23,674 11s. 10d. The Honorary Treasurers have to acknowledge with thanks the receipt of the following amounts since the last list was published:—

THIRTY-SIXTH LIST OF CONTRIBUTIONS.

Amount previously acknowledged ...	£23,145	3	8
The Charente S.S. Co.	500	0	0
E. L. H. Macleod, Esq.	5	0	0
H. A. Boyce, Esq.	2	2	0
The Dominica Club	2	1	8
John Dopson, Esq.	2	0	0
A. K. Taitt, Esq.	2	0	0
Dr. J. F. E. Bridger	1	1	0
C. A. Campbell, Esq.	1	1	0
Gordon Graham, Esq.	1	1	0
R. Radcliffe Hall, Esq., B.A.	1	1	0
Thomas Hughes, Esq.	1	1	0
Major J. E. King-Church	1	1	0
R. A. Leslie, Esq.	1	1	0
J. T. Ricealton, Esq.	1	1	0
J. R. Rosado, Esq.	1	1	0
G. N. D. Sinclair, Esq.	1	1	0
H. W. F. Temple, Esq.	1	1	0
A. B. Tucker, Esq. (2nd donation)	1	1	0
J. C. Bovell, Esq.	1	0	10
Hon. Carl de Verteuil	1	0	10
A. R. Ynille, Esq.	1	0	10
Mrs. Adamson		10	0

The West India Committee is the only Colonial body in this country which has not increased its pre-war rate of subscription of one guinea per annum, and it is hoped that every member will show his appreciation of this fact by paying his dues without delay and by contributing to the Committee's Endowment Fund. Donations, which will be acknowledged in the CIRCULAR, may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, or of the Canadian Bank of Commerce, or sent direct to the Secretary, The West India Committee, 15, Seething Lane, London.

SOME NOTES OF INTEREST.

"STUDYATION beat education, but starvation beat all."

At a meeting of the Court, held on January 5th. Mr. Charles F. Wood was re-elected Chairman, and Mr. Cyril Gurney Deputy-Chairman of the Colonial Bank for the ensuing year.

MR. CORNELIUS CHARLES PAINE having retired, the business of the firm of Messrs. Paines & Reid will be carried on by the remaining partner, Mr. Arthur B. Blencowe.

ACCORDING to the *East Indian Patriot*, the British Guiana Cricket Committee has, as a result of a visit paid to Trinidad by Mr. Veerasawmy, invited that island to send down to Georgetown a team of East Indian cricketers.

CAPTAIN RONALD GEORGE STUART GUNNIS, Royal Corps Signals, Territorial Force Reserve, has been appointed Private Secretary and A.D.C. to the new Governor of the Leeward Islands, Sir Eustace Twisleton-Wykeham-Fiennes.

A CONTEMPORARY in Port of Spain—not the *Trinidad Guardian*—has recently been "lifting" copy from the CIRCULAR, merely acknowledging the source as "W.I.C.C."—a practice not in accordance with the ethics of journalism.

SEVERAL shipping companies, including the Pacific Steam Navigation Co. and the Grace Line, are now accepting passengers wishing to make the transit of the Panama Canal from Cristobal to Balboa or vice versa at \$10 for the journey, including meals served during transit.

Owing to the need for retrenchment, the Board of Trade do not propose to fill the position of Trade Commissioner in Trinidad, rendered vacant by the resignation of Mr. A. J. Pavitt, and the work of the office will be carried on by the Chief Clerk, Mr. A. W. H. Hall.

WITH three small motor boats acquired from the United States Government and flying the flag of Nicaragua, the Snyder Banana Company is carrying bananas from Frontera, in Mexico, to Galveston, U.S.A. The motorships carry about 10,000 bunches of bananas each voyage.

MESSRS. JAMES NOURSE announce the sailings of steamers of their line from Calcutta and Rangoon to the West Indies on the 15th of March, May, July and September, and add that supplementary steamers will be despatched if required. The freight rate is 60s. for rice and dhall, and 70s. for gunnies.

THE London School of Tropical Medicine and the Seamen's Hospital Society have suffered a severe loss from the death of Sir Perceval Nairne. For 52 years he was a member of the Hospital Com-

mittee, and deputy-chairman from 1886, and chairman in 1898. He was also chairman of the London School of Tropical Medicine from its inception.

* * *

The British Sugar Beet Growers' Society, the parent of Home Grown Sugar, Ltd., has circularised the public with the view of disposing of Kelham beet sugar. On the receipt of five shillings a five pound bag of this sugar will be forwarded, and the profits of this missionary enterprise are to be devoted to the propaganda work of the Society. Applications will not be dealt with after January 31st, so all desirous of purchasing sugar at more than twice its value should lose no time in making their remittances.

* * *

REGULATION 13 of the Canadian Regulations as to marking of goods has been altered, and now reads:—

"The name of a manufacturer or his trade mark accompanied by the name of the country or a place in a province, state, or other division of a country where the goods have been manufactured or produced will be accepted as sufficient indication of the country of origin."

In the original Regulation the name of the country of origin was sufficient.

* * *

The sugar-cane crops on the experimental fields of the Botanic Station at Georgetown, Demerara, have, during the last few years, been very unsatisfactory and irregular, which Sir John Harrison attributes to the exceptionally heavy nature of the soil and to the difficulty of maintaining its tilth owing to want of labour. The report of the Department of Science and Agriculture of that Colony for 1919 states that on these fields the surface dressing of rice-straw in the proportion of 12 tons to the acre has had a marked effect in increasing the yield, the excess varying from 1.4 to 4.8 tons of canes per acre.

* * *

RESEARCHES which have been going on in London for some time point to the strong probability that newspapers will at no great distance of time be printed on paper produced from rubber, instead of on paper made from wood-pulp, as now. The results, says the *Manchester Guardian*, already derived are such that art paper of the kind used in the production of fashion journals and the big illustrated newspapers can be made from rubber. Further experiments are to be made with a view to making newsprint from the same material, and it is on this point, perhaps, that interest in the printing industry will centre.

* * *

A PLEASING little ceremony was enacted on the 18th January at the offices of Messrs. Gillespie Bros. & Co., 82, Fenchurch Street, when a presentation was made by the partners and staff of the firm to Mr. Arthur Johnson on the completion by him, on the 7th January, of fifty years' association with its interests. The testimonial, which took the form of an English bracket clock, and an illuminated address in book-form containing the names of the sub-

scribers, was presented by the senior partner, who referred to Mr. Johnson's long devotion to the service of the firm, and expressed the hope that he would be spared for many years of further activity. At the same time he asked Mrs. Arthur Johnson's acceptance of a leather needlework-case, as it was the unanimous desire of the subscribers that she should share in their gift of remembrance.

* * *

ARCHDEACON P. H. BINDLEY, in a letter to the *Times* of January 3rd, refers to the fact that in the West Indies words which at home have either become obsolete or changed in meaning are still used with their 17th century connotation. "Today," he writes, "in the intensely English Colony of Barbados, 'luted' is used as in Shakespeare, 'interfere' in its strictly correct sense of a horse 'forging,' and 'respectable' for 'very greatly esteemed,' denoting persons in high social or official position." He adds that in 1798 the then secretary of the S.P.G. wrote to the principal of Codrington College (a position later held by Archdeacon Bindley) of the desire of the society to make "his situation as respectable as possible," and points out that respectable, lust, usury, and vulgar are examples of words which have all appreciated.

* * *

LIEUT.-COLONEL THE HON. FREDERICK NICHOLLS, J.P., who, we regret to state, died at his residence in Toronto on October 25th, was the brother of the Hon. H. A. Allord Nicholls, C.M.G., M.D., of Dominica. A Senator, he was President and General Manager of the Canadian and General Electric Company, and a Director of the Toronto Railway Company, and was also connected with many other important commercial concerns. Regarded as a financial organising and industrial genius, he rapidly made his mark in Canada, to which country he migrated from England in 1874. As a young man of 18 he first worked as a reporter, and then founded the *Canadian Manufacturer*. Senator Nicholls was a generous supporter of almost every worthy philanthropic movement in Ontario, and was a deservedly popular member of many social and sporting clubs.

* * *

MR. J. HERBERT SCRUTTON, a member of the Executive of The West India Committee, has been elected Chairman of the General Committee of Lloyd's Register of Shipping, of which he was last year appointed Deputy-Chairman and Treasurer. Mr. Scrutton, who is a partner in the firm of Messrs. Scrutton, Sons & Co., which was founded by his grandfather, was Chairman of the General Ship-owners' Society for the year 1905-6, when he first took his seat on the Committee of Lloyd's Register, on which he has since served continuously. He was Vice-President of the Chamber of Shipping of the United Kingdom during the three strenuous years 1916 to 1918, and in that capacity rendered most valuable service to the Government and to British shipping. Mr. Scrutton would have been elected President of the Chamber at the end of his last year of office had his health at that time permitted. Since 1884 there have only been seven Chairmen of the Society.

The yearly imports of flour into the British West Indies amount to about a million bags of 196 lbs. weight. They were at one time almost entirely obtained from the United States, but since the Canada-West Indies Agreement came into effect imports of American flour to the Indies have fallen off steadily, and imports from Canada have increased. Now Canada supplies about three-quarters of all the flour used in the southern colonies. Prior to the Canada-West Indies Agreement a prejudice existed in the minds of the bakers against Canadian flour. The bakers had been accustomed to use almost exclusively American brands of flour, and their prejudice, says the *Canadian Export Pioneer*, lay chiefly in the fact that they had not given any Canadian brand of flour a fair trial. No doubt Canadian and United States flour were practically identical in quality, but it was stated that Canadian flour did not keep so well in the Indies. However, the old prejudice has been forgotten, and Canadian flour is generally favoured as against any other.

Mr. Luis V. de Abad has prepared an estimate of the capital invested in the sugar industry in Cuba, for a copy of which we are indebted to the *Cuba Review*. His conclusions are summarised as under :

Summary.	1920	1921
Plants, with machinery and buildings	\$600,000,000	\$300,000,000
Railroad tracks and rolling stock	215,000,000	148,000,000
The lands, not including the cane	141,000,000	282,500,000
The cane, not including the land	268,000,000	140,000,000
Miscellaneous	150,000,000	100,000,000
	\$1,675,000,000	\$968,500,000

With regard to the cost of a complete plant, he states that this might be estimated, on the basis of the total capacity of the mill, as follows : for old plants, between \$6 and \$7 per bag of sugar, and, for modern plants, between \$9 and \$10; or \$8 as the general average. During the years of the war the cost constantly increased until it represented, in 1920, from \$20 to \$25 per bag. Thus a plant to produce 100,000 bags would have cost \$2,000,000 in 1920 compared with \$800,000 in 1914. At present a plant could not be set up for less than £15 per bag.

GERMAN potash sales for export during the first eleven months of 1921 declined by 50,000 tons of pure potash compared with the corresponding period of the preceding year. According to the *Fertiliser and Feeding-Staffs Journal*, the Potash Syndicate attributes this primarily to the transport difficulties which have prevailed for several months, and have hampered coal supplies. Consequently, several plants had to operate on short time. The shortage of covered trucks has injured export business, for numerous foreign orders have been cancelled owing to the inability of the syndicate to effect prompt shipments. The syndicate holds that the principal cause of the railway failure is the eight-hour day. If more trucks had been forthcoming

sales would have reached at least 100,000 tons. Domestic and foreign sales were about equal before the war, but it is claimed that conditions are still unfavourable for exports. That export shipments have increased of late, however, is clearly shown in the following table (metric tons) :—

	June.	Aug.	Sept.
Carnallit, 9-12 per cent. K_2O	15	—	—
Crude salts, 12-15 per cent. K_2O	3,008	15,949	27,426
Fertiliser salts, including potash fertilisers of 38 per cent. K_2O	4,128	12,479	37,091
Value in 1,000 mks.	3,767	14,426	46,631

ACCORDING to *Indian Opinion*, an Indian weekly journal published in South Africa, the Union Government of South Africa have desired Indians in that Dominion to consider the possibility of appointing two delegates to proceed with the Indian Deputation to British Guiana to consider whether that country will absorb the Indian population from South Africa. At a meeting of leading Indians held at Durban to consider the question, it would appear that it was decided to consider the question at a public meeting held under the auspices of the Congress. The emigration of Indians from South Africa to other parts of the Empire than India was suggested by Sir Benjamin Robertson in his evidence before the South African Asiatic Enquiry Commission.

COMMENTING on this, an Indian contemporary says : " Any Indian who leaves South Africa under the reparation scheme of the South African Government, loses his domiciliary rights in South Africa, and hence, in the working of the Government scheme, Indians will have to be very careful. It will hence be in their own interests to ascertain whether conditions in British Guiana are really satisfactory : and the Indian Government can have no objection to the association of two South African Indians chosen by the community to investigate whether conditions in British Guiana will prove suitable to South African Indians. But nobody in India will fail to see what this remarkable solicitude of the Union Government is impelled by. It is actuated by the desire to get rid of Indians by hook or by crook."

MANGO PICKLE.—To 1 large pickle bottle of sliced green mangoes, add 5 table-spoonfuls of sliced ginger, 2 of garlic, 2 of mint, 2 of salt, 1 of sugar, 1 of mustard seeds, and half of the juice of chillies, all cut fine separately, mangoes being peeled and sliced lengthways and sprinkled with salt. Put the jar in the sun until the salt melts, then strain it off (do not throw it away), sprinkling the ginger with salt and putting it in the sun for 1 hour, afterwards soaking it in the pickle that was drained off the mangoes; after 1 hour, strain it off, then mix all the ingredients, then boil enough vinegar to cover the mangoes and pour it over while still hot. Close the bottle for 8 days, when it will be found fit for use.

INCOME TAX ANOMALIES.

Inter-departmental Committee set up.

Further correspondence which has passed between The West India Committee and the Colonial Office on the subject of Income Tax Legislation in the United Kingdom and the Colonies is published below. It will be noted that the Secretary of State has adopted the suggestion that an Inter-departmental Committee might be appointed to consider this complex question.

The West India Committee,
December 7th, 1921.

Sir,

I have the honour to transmit herewith for the consideration of the Secretary of State for the Colonies a memorandum (in duplicate) on the subject of Income Tax Legislation in the United Kingdom and Colonies not possessing responsible government.

2. In this memorandum attention is called to the anomalies resulting from the lack of uniformity in respect of the general provisions of the Income Tax sections of the Finance Acts of the United Kingdom, and the Income Tax Acts and Ordinances in the Colonies.* Certain proposals (which it is hoped may be favourably entertained) are also made for securing some amelioration of the chaotic state of affairs resulting from the present lack of uniformity in Income Tax Legislation, and the diversity of the regulations issued under the various Colonial Income Tax Acts and Ordinances.

3. My Committee feel, however, that in view of the many considerations involved, the best hope of securing the satisfactory adjustment of the present situation in regard to Colonial Income Tax lies in the reference of the various points at issue to an Inter-departmental Committee composed of representatives of the Colonial Office, the Board of Inland Revenue, and of the commercial interests concerned.

4. I am, therefore, respectfully to urge that such an Inter-departmental Committee may be appointed to investigate the entire question of Colonial Income Tax Legislation, and to report as to how it can be brought into line with the Finance Acts of the United Kingdom, with special reference to Section 27 of the Finance Act of 1920, which deals with the problem of double taxation within the Empire.

I have the honour, etc.,
(Signed) ALGERNON ASPINALL,
Secretary

The Under Secretary of State for the Colonies.

To the above letter the following reply was received:—

Downing Street,
December 29th, 1921.

Sir,

I am directed by Mr. Secretary Churchill to acknowledge the receipt of your letter of the 7th

*This Memorandum, which is not reprinted here, was published in THE WEST INDIA COMMITTEE CIRCULAR, of December 22, 1921, p. 535.

instant, and to request you to thank The West India Committee for the memorandum which you enclosed on the subject of Income Tax Legislation in the United Kingdom and the Colonies. I am to ask whether it would be convenient to supply a dozen further copies of the memorandum to this Department?

2. The Secretary of State has decided to appoint an Inter-departmental Committee to consider and report to him on the question of Income Tax in the Colonies and Protectorates, and the memorandum will be referred to the Committee. Income Tax laws are now in existence, or are contemplated, in several Colonies besides the West Indian Colonies, and in the circumstances the Secretary of State, as at present advised, thinks that the most convenient procedure will be for the Committee to consist of representatives of Government Departments only, but to arrange for full and frank discussion with The West India Committee, both on general questions and on points which specially concern the West Indies, and to adopt the same course with representatives of commercial interests in other Colonies, or groups of Colonies, when matters which more particularly concern those Colonies are under discussion.

3. I am to add that it is hoped that the Committee will start work next month, and it is proposed that the Secretary should keep in touch with yourself regarding the matter.

I am,

Sir, &c.,

G. GRINDLE.

The West India Committee have been invited to give evidence before the Inter-departmental Committee on January 28th. They will be glad, therefore, if any companies and individuals having special points (not covered by the Memorandum published in the CIRCULAR of December 22nd, 1921, p. 535) will kindly communicate before Monday morning next.

AGRICULTURAL TEACHING.

Barbados still too "Bookish."

"We should like to see much greater development along the lines of practical agriculture and other forms of manual work," state the Inspector and Assistant-Inspector of Schools of Barbados in their report for 1920. They add that they have had this in view since 1914, but the financial uncertainty of the war years prevented them from pressing it. They regard with satisfaction the progress made with school gardens, but add: "Encouraging as this progress is, we are of opinion that the present system is still too 'bookish' in its tendency, and we should welcome the prospect of further development along the lines we have indicated. More and larger plots for agriculture, training of teachers in agriculture, centres for manual work of an effective kind—all are needed, but nothing can be done without a substantial grant for the purpose."

SUGAR CANE IN ST. CROIX.

The Present Conditions of the Industry.

(The following article, for which we are indebted to "Facts about Sugar," is abridged from a paper by Mr. Longfield Smith, till recently agronomist in charge of the Virgin Island Agricultural Experiment Station.

The growing of sugar cane was stimulated in St. Croix, as elsewhere, by economic conditions brought about by the war. The area devoted to it at present is approximately 13,000 acres. The average amount of sugar exported from St. Croix yearly since 1898 has been 9,216 tons, from an area of about 14,280 acres. Including local consumption, this means an average annual yield of almost exactly two-thirds of a ton of sugar per acre.

Sugar-cane is grown on both of the two types of soil on the island, which are (1) that overlying a limestone or marl foundation, and (2) that known as the "blue beach" formation. Analyses of these soils given by the author show that all the soils are plentifully supplied with available phosphates and potash; that the soils in the limestone area contain a large proportion of agricultural clay, in which, on the other hand, La Grange plantation is deficient; that the soils at the experiment station and some of the plantations contain a large percentage of calcium carbonate, and that the soils at the experiment station and La Grange contain exceptionally large amounts of available phosphates.

Fertility of the soil and favourable moisture conditions are maintained to a large extent by a liberal use of barnyard manure, which is applied at the rate of 20 to 30 tons per acre, in the rows, when supplies are sufficient.

It is the practice in St. Croix to plant cane continuously on the same land, and this is one of the points where change is recommended by the bulletin, which advises the practice of rotation of crops. On this point Mr. Smith says:—

"Cotton suggests itself naturally as a rotation crop, but in some cases where it was tried the results were not very satisfactory. Lack of success is attributed to the fact that cultivation of the cotton crop ceases after the bolls begin to form; consequently, the land is left after the crop in a weedy and foul condition.

"The experiment station was successful in rotating first with sweet potatoes, and then with velvet, or Lyon beans. Sweet potatoes and velvet beans form such a thick growth of vines that they readily keep down weeds.

"Planters object to planting fields of sweet potatoes because they cannot be sold when the supply is plentiful, and they do not keep for any length of time. The poor keeping qualities of sweet potatoes are due principally to the attacks of the sweet potato weevil, or scarabee (*Euscepes batæ*). Experiments show that the damage caused by this pest can be controlled. Potatoes which were free

from weevils have been kept in a perfectly sound condition for four months at the experiment station.

"Since the yield of Black Rock sweet potatoes is about 10,000 lbs. of tubers to the acre, and two or three cents a pound is readily paid for them in St. Croix, this crop should be remunerative when used in rotation with cane. The potatoes occupy the land for four months only, and in addition to producing a valuable crop of tubers, form an immense quantity of vine which makes excellent feed for hogs, goats, cows, and all kinds of stock. The crop helps to increase the fertility of the land because the quantity of manure is invariably increased and returned to the ground by the animals pasturing thereon."

Taking up the subject of the preparation of the land for planting, the bulletin says:—

"On account of labour shortage and prevailing high wages in St. Croix, it has become necessary to simplify the method of preparing the land for cane. For this reason an entirely new and successful method of preparation has been tried for some years at this station. After the land was thoroughly fallow-ploughed, the field was scored out into a series of ridges and furrows by means of a single-moldboard plough. Two cuts of the plough were used to score out each furrow, the soil being thrown to one side by the first cut, and to the other side by the second cut. The station tried using a single cut of a double moldboard plough for this work, but found that the local ploughmen could not make a straight furrow with this implement.

Well-rotted farmyard manure was applied at the usual rate in the furrow, and then covered by two cuts of a vineyard plough, one cut being made up the field and the other down. The cane was then planted through the manure. This method of preparation, in addition to being much cheaper than that ordinarily practised, leaves the land almost flat, and makes subsequent cultivation easier. Extensive trials have shown that the yield of cane did not suffer by this method, but on the contrary was considerably increased.

"At the private station of the Danish West Indies Sugar Factory Company, which is situated on the Slob plantation, Mr. Gedde is making extensive trials, with excellent results, of planting cane in flat soil after broadcasting farmyard manure. The cost of preparing and subsequently cultivating the cane is much reduced, and the yields do not seem to diminish."

In connection with fertilisation, the following is given as an analysis of the ordinary farmyard manure used:—

	Per cent.
Moisture	67.75
Organic material (containing 0.84 per cent. nitrogen)	20.84
Insoluble siliceous matter	3.94
Phosphoric anhydrid (equal to tricalcium phosphate, 0.72 per cent.)	0.83
Potassium oxide	0.85
Undetermined	6.29
	100.00

The bulletin comments: "Naturally there are great variations in the chemical composition of this material, but the above may be considered an average sample. An application of 20 tons per acre of such manure adds to the soil 148 lbs. phosphoric anhydrid, 380 lbs. potash, and 876 lbs. nitrogen.

"Analyses of sugar cane made in Barbados show that one ton of cane removes from the soil approximately 1.3 lbs. phosphoric anhydrid, 2.3 lbs. potash, and 1.7 lbs. nitrogen. In St. Croix an acre of land planted to cane, that is retained in the ground until it has borne a crop of plant canes and two of ratoons, produces about 50 tons of canes, provided the weather is favourable. This quantity of cane will absorb from the ground approximately 65 lbs. of phosphoric anhydrid, 115 lbs. potash, and 85 lbs. nitrogen. Therefore, farmyard manure, applied at the rate of 20 tons per acre every time a field of cane is replanted, should be sufficient to keep up the fertility of the soil, because the amounts of the most important plant foods carried in the manure are from two to four times as great as the amounts removed by the average crop. Tests carried out by the experiment station show that this conclusion holds good in actual practice.

"The application of farmyard manure is of the greatest value in keeping up the fertility of the soil. It is not the plant food alone which makes the farmyard manure so valuable; rather it is the humus that is formed in the soil by the decay of vegetable matter. This humus greatly increases the capacity of the soil for water, which is a very important matter in an island such as St. Croix, where the rainfall is scanty and there are no means of irrigating the land.

"Recently a tendency has developed to burn off the cane trash before the land is prepared for a new cane crop. This should not be done except in very special cases. The practice of saving all the cane trash for incorporation with the soil is excellent, and should be continued.

"A more valuable farmyard manure would be obtained were the cattle pens of the island closed in and the bottom of the pens concreted, so that the liquid manure could be run off into a tank and returned to the pile from time to time. After having had one or two profitable years with sugar cane, planters would be acting wisely and economically were they to invest part of their savings in this up-to-date pen. Money could hardly be spent to better advantage on the plantations."

MR. ALBERT T. HAMMOND has severed his connection with Rylands & Sons, Ltd., after a connection extending over 48 years, having been advised by his doctors that it is desirable for him to discontinue his prolonged and frequent visits to the tropics, and in order to cater specially for the West Indian business he has joined the board of Mackenzie, Stewart & Co. (Manchester), Ltd. His many friends in the West Indies will be glad to learn that he still hopes to visit those colonies again and to renew old acquaintances. Meanwhile he trusts that many West Indian friends will look him up in Manchester when they visit cottonopolis.

LIMES IN CEYLON.

A Prosperous Industry.

Great attention is now being given in Ceylon to the development of a lime industry, and the *Tropical Agriculturist* for November devotes a great deal of space to the subject. It contains a reprint of a bulletin issued by the Department of Agriculture from the pen of Mr. G. G. Auchinleck, M.Sc., A.I.C., one of the divisional agricultural officers, on the cultivation of limes, which gives much valuable information as to the industry. As regards lime products, Mr. Auchinleck says: "The products of the lime which are in demand in European and North American markets comprise green limes, pickled limes, raw lime juice, concentrated lime juice, citrate of lime (calcium citrate), and essential oil.

A prospective planter will, therefore, have to decide on the products which he intends to turn out. The demands of the market, the cost of manufacture, proximity to markets, and the capital available will influence decision.

For the trade in green limes, specially selected fruit must be used, and care given to ensure efficient and attractive packing. The London trade is closely akin to the orange trade in the methods of packing employed. A fairly extensive trade exists in the West Indies, Dominica shipping to New York and London an average of 42,000 barrels of 1,500 fruit each (63 million limes) annually between 1914 and 1918. The trade in pickled limes is a comparatively limited one at present, the output of Dominica, the largest producer, having at one time reached 1,500 casks of 2,000 fruit each, but having fallen in 1918 to eight casks. For this trade yellow selected limes are steeped in several changes of sea water, and finally shipped in casks of sea water, to which some salt has been added.

Green and pickled limes do not seem to offer much opening as an industry for Ceylon, and for the present may be dismissed from consideration. It is possible that a very small local trade might be built up in connection with hotels and shipping, but the remoteness of the Colony from European and American markets makes the possibility of a large export trade slight.

Two classes of essential oil are obtained from the rind of the fruit: Hand-pressed oil or otto of limes is extracted from the rind before the fruit is crushed, the fruit being rolled by hand on a shallow spiked funnel known as an 'écuelle,' by which process the oil is pressed out; a power 'écuelle' is on the market, which performs the work more rapidly. After the fruit has been crushed, a further yield of oil is separated from the juice by distillation. Under any system of manufacture the hand-pressed oil or 'otto' would be extracted, as the price is usually high. The distilled oil is of a lower grade and value, and can be prepared only where concentrated juice or citrate is being manufactured.

The trade in raw lime juice is chiefly carried on in connection with the makers of lime-juice syrups and cordials. As in the case of sugar-cane, the

juice from the first crushing of limes is richer than that from subsequent millings, and shippers of raw lime juice usually keep the two millings separate. Special precautions regarding cleanliness and clarification are necessary in this trade, as naturally the appearance of the juice largely influences the price obtained. Raw lime juice, if clarified by settling and straining and shipped in air-tight packages, will keep for a few months without serious loss of citric acid by fermentation. The presence of essential oil appears also to lessen the chances of loss of acid, so that on this account, as well as from considerations of colour and cost, raw lime juice is never distilled. Owing to the high price of otto of limes, the fruits are, however, écuelled or hand-pressed before being milled.

Concentrated lime juice and calcium citrate (or citrate of lime, as it is popularly called) are exported chiefly for use in connection with dye-works and pure chemicals. In both cases the operations involved in manufacture are for the purpose of reducing bulk and consequently freight. During the process of concentration the juice is usually reduced to a bulk from one-seventh to one-twelfth of its original volume, the degree varying with the strength of the mill-juice.

Calcium citrate is a compound formed by the combination of citric acid with lime or chalk. As it is insoluble in hot solution, the juice is heated before addition of the chalk. Cleanliness and careful drying are essential in this process. The bulk of citrate from a known volume of juice is usually slightly greater than that of highly concentrated juice, as the compound is light and bulky.

THE WORLD'S MARKETS.

The two countries which have hitherto supplied most of the exports of citric acid are Sicily and the West Indies. The Sicilian industry deals exclusively with lemon juice, both concentrated and in the form of citrate, while the West Indian one is confined to lime products.

In 1915 the Sicilian exports were valued as follows:—

	£
Raw juice	26,200
Concentrated juice	4,600
Citrate of lime	535,700
Essential oil	276,000
Total	4842 500

The island of Dominica, one of the British West Indies, has assumed the first place as an exporter of lime products. The figures for the four years 1915-18 are:—

	Total Crop in Barrels of 1,500 Gall.	Value of Ex- ported Products, £
1915	390,000	175,000
1916	384,000	172,000
1917	396,000	205,000
1918	318,000	163,500

These two countries practically control the export market at present.

A certain amount of activity in the export of lime fruit has been exhibited lately by Cuba and Porto Rico, and in lemon fruit by Florida. In

addition, Grenada, St. Lucia, Jamaica, and British Guiana in the West Indies have small lime industries, some of which are likely to grow. The industry cannot be compared in magnitude to such staples as rubber or sugar-cane. The annual value of exports totals about £1,650,000, and there are about 12,000 acres involved in the Sicilian industry and 6,000 acres in the West Indian ones.

The Sicilian industry reached its highest point in 1908, and no further extension is possible there, while in any event the higher yield of citric acid per acre from limes and the absence of any need for precautions against frost make it fairly certain that we should look for future increases in the tropics and not in temperate climates. There is no immediate sign of increases visible, but Cuba, Porto Rico, and India are possible future growers.

The limits to which the markets can expand are not clear, and it is difficult to form any opinion whether a large increase in exports would entail a serious fall in prices. Lime juice for consumption, citric acid for dyeing, and essential oil for perfumery and soaps are obviously of limited application, but to judge from the consistently high prices of the existing exports, the limits of the markets have not yet by any means been reached.

Mr. Kelway Bamber, F.I.C., also gives the results of the weights and analysis of Ceylon limes. After a long period of dry weather and after rains the average weight was 1.3 oz., in yield of juice 35.8 per cent., and the amount of citric acid per gallon 13.4 oz. After wet weather, the average weight was 1.65 oz., the average yield of juice 32.9 per cent., and the amount of citric acid per gallon 11 per cent.

The *Journal* states that the lime growing at the Ceylon experimental station is from British Guiana seed, and that orders for seed from these are being made from all parts of the Colony.

LABOUR EXCHANGES.

Interesting Experiments in Trinidad.

The Labour Exchanges came into existence in Port-of-Spain and San Fernando, Trinidad, on November 1st, 1920. They were advertised throughout the Colony as largely as possible, copies of the Regulations made under the Labour Exchanges Ordinance, No. 18 of 1919, being sent to the principal employers of labour, the East Indian National Congress, the East Indian National Association and Workingmen's Association. This Act, which is based on the United Kingdom Act of Edward VII., Cap. 9, was prepared by a committee comprising the Attorney-General, Sir Norman Lamont, and Mr. C. Marriott, the then Protector of Immigrants. They were also posted in all Constabulary and railway stations throughout this island and Tobago, Wardens' offices and post offices, at the landing stages of the St. Vincent and Queen wharves, Port-of-Spain, and the wharves at San Fernando and Scarborough, Tobago.

Reporting on the first year's working, Major A. de

Boissière, Protector of Immigrants and Director of Labour Exchanges, states that there were 1,803 applications for work in Port-of-Spain, and 200 at San Fernando. Of the applicants, 208 and 29 were placed in Port-of-Spain and San Fernando respectively.

At first the wages demanded were absurdly high, but by dint of persistent explanations to the applicants, sometimes by the director, and at other times by members of the staff, the wages now asked for are reasonable. "The number stated as placed does not," says Major de Boissière, "really represent the total number who actually obtained employment through this department, as we know of several cases where applicants registered by us obtained work by means of our cards, and failed to notify us as they should have done. The interest in the Port-of-Spain branch seems to be on the increase, and we daily have a number of registered applicants for work coming into the office and asking, 'Anything for me yet?' Every endeavour has been made to satisfy employers who ask for workpeople at the Exchanges, and messengers of the department are frequently on the move finding suitable parties at their homes; in this part of the work, Mr. Rajnauth has taken a keen and intelligent interest; he has extensive and practical knowledge of labour and its value.

"With the exception of a few agricultural labourers who were applied for, and who could not be found when the Labour Exchanges first began their work, all applications by employers have been filled. It was my intention to advertise the Labour Exchanges in other Colonies, but I did not do so in view of the number of applicants for employment over and above the number of applications for their services. This goes to show that there is no dearth of labour in the Colony."

SENATOR SIR GEORGE AND LADY FOSTER have been paying a visit to the West Indies. They went down the islands to British Guiana in the R.M.S. *Caraquet* and returned in the *Chaudiere* after spending a fortnight in Trinidad.

AN OLD BARBADOS SEAL.

In 1912 THE WEST INDIA COMMITTEE CIRCULAR called attention to a curious mistake in the new postage stamps for Barbados issued in that year.* On these the design included what purported to be the badge of the colony, which was described as "Britannia riding in a chariot drawn by sea-horses." This appeared to be incorrect, and the CIRCULAR was able to show by the illustration of the obverse of an old Barbados penny of 1792 and a reference to the seal of the reign of Charles II. that the figure in the chariot should have been that of

the reigning sovereign. Probably, during the reign of Queen Anne a female figure was substituted for the male, but it was shown by the old penny that in 1792 it was King George III. who was seated in the chariot. On the accession of Queen Victoria, however, the female figure reappeared, but when King Edward VII. succeeded to the throne no change was made in the badge, and by the time of the accession of King George V. it had evidently been forgotten that the female figure should have been that of the reigning sovereign. The Barbados Government evidently accepted this view,



An Old Barbados Seal.

for though no communication was received from them, the badge of the Colony was thereafter correctly reproduced on the Barbados stamps, the figure in the chariot now being that of King George V. Through the courtesy of Bodley's Librarian the CIRCULAR is now able to publish a reproduction of a photograph of the old Barbados seal of the reign of King Charles II., which is included in the collection of seals bequeathed to the Bodleian Library by Bishop Rawlinson in 1755.

The motto of the Colony: "Et penitus toto regnantes orbe Britannos," is, as Archdeacon Bindley has pointed out, an adaptation from Virgil *Eelogue*, l. 67, and may be translated: "And the Britons absolutely reigning over the whole world."

*See THE WEST INDIA COMMITTEE CIRCULAR, Vol. XXVII., No. 367, p. 515.

MOTOR FUEL FOR ENGLAND.

Fuel Research Board's Report.

The second report of the Fuel Research Board of the Department of Scientific and Industrial Research has now been issued. The Board, it may be remembered, consists of Sir George Beilby, F.R.S., the Hon. Sir Charles A. Parsons, K.C.B., F.R.S., and Sir Richard Threlfall, K.B.E., F.R.S., and Sir Frederic L. Nathan, K.B.E., as Power Alcohol Investigation Officer.

The motor spirit imported into the United Kingdom and some of the principal Dominions and Colonies the report gives as being for 1920 :—

United Kingdom	100,858,017	207,739,144
Dominion of Canada	34,962,066	95,603,525
Commonwealth of Australia	9,612,886	24,891,000
New Zealand	—	—
Fiji	—	270,000
Ceylon	607,774†	988,427
British Guiana	48,091*	539,000
Trinidad	144,944	600,000
	*1913.	†1915.

After a review of the whole possibilities of the production of alcohol to take the place of the above in the British Empire, from various sources, the conclusions drawn are that—

1. The prospect is remote of adding materially to the supplies of liquid fuel for internal combustion engines in this country by the manufacture of alcohol from home-grown materials.

2. The production within the Empire of alcohol from materials containing sugar or starch is only likely to be possible commercially in the near future in some of the Dominions and Colonies, and then only on a sufficient scale to meet local requirements. Such production could be accomplished owing to :—

(a) The availability of molasses, now a waste product in many places.

(b) The possibility of growing vegetable substances giving a high yield per acre combined with a relatively high starch content, such as cassava, sweet potatoes and yams.

(c) The comparatively cheap labour and production costs.

(d) The high cost and scarcity of other liquid fuels.

(e) The relatively small liquid fuel requirements.

3. It is unlikely that alcohol could be produced in the manner referred to above in excess of local needs and at a price, when freight to seaboard and to this country is included, at which it would find a market here.

4. Synthetic production on a commercial scale in this country is unlikely; it might be possible, however, in Canada and Australia.

5. Research work for a process, either chemical or bacteriological, to produce alcohol commercially from tropical vegetation or waste vegetable materials has not yet reached the stage where its possible industrial application can be practically considered. The discovery of such a process, where locally applicable, probably offers the best chance of a large scale production of power alcohol for export.

THE DEADLY MOSQUITO.

Some Hints for its Elimination.

An account of a successful campaign against mosquitoes undertaken last year at Mayaguez, Porto Rico, is given by Mr. W. V. Tower, entomologist attached to the Porto Rico Agricultural Experiment Station, in a pamphlet recently issued by that organisation.

In this interesting little brochure, Mr. Tower points out that mosquitoes are among the worst enemies of the human race. In all newly settled countries where progress has been made, the land has been won from the wild, in many instances, only after mosquitoes have been either exterminated or brought under control. After they have been brought under control they can be kept there by constant vigilance and untiring efforts. Such efforts are amply repaid by vastly reduced mortality rates.

After dealing with the various kinds of mosquito found at Mayaguez, Mr. Tower proceeds to make some very practical suggestions for their extermination. Before a successful mosquito campaign can be conducted public interest must be aroused and co-operation secured. While the work done by inspectors accomplishes a great deal of good, much more can be accomplished when the public is sufficiently interested to co-operate in eradicating the mosquito. When public sympathy is lacking, the inspectors cannot make the progress that is desirable. A vast amount of good can be done by cleaning up the various dumps where are deposited tin cans, old bottles, coconut husks, and other containers which hold water; by screening all cisterns and water barrels; by oiling every pool of standing water; and by draining water from and filling in the low places. This is, however, just the beginning. The real work commences with the weekly inspection, because by this time the public is likely to have lost some of its interest and is ready to relax and weaken in its good resolutions. This is, then, the critical time, and unless the inspectors are constantly on the watch for new mosquito breeding places, it will be only a short time until conditions are as they were before the work was undertaken. After the general clean-up ceaseless and untiring efforts are necessary to prevent a return to the old conditions, but the small work required is worth while when it results in ridding the Tropics of its most serious pest.

The conditions at Mayaguez appear to resemble closely those prevailing in many British West Indian towns. The place is located in a valley at the foot of the range of mountains which crosses Porto Rico from east to west, and on the shore of the Mona passage joining the Atlantic Ocean and the Caribbean Sea. The Yaguez River bisects the town and has a constant flow of enough velocity to afford excellent drainage. All surface water in the city proper can be readily run into the river. There are two sections near Mayaguez which are somewhat difficult to drain, the swamp lying south of the river along the sea, and the smaller swamp

lying north of the river along the sea. Several creeks flow through these swamps, going on into the sea during low tide and after heavy rainfall. During high tide and at times of low rainfall the mouths of the creeks are silted up with sand. These swamps breed mosquitoes, but could be so handled that the insects would be exterminated. The swamps could be drained without any great expense into the creeks, which in turn could be kept open to the sea by drains with mouths far enough out from shore to avoid silting up.

The top minnow has been found in the small streams. These are mosquito-eating fish, and doubtless keep the streams cleaned to a large extent of mosquitoes. The main attention, however, should be focussed on the drainage of these areas, which would be a feat requiring no great amount of engineering ability. The swamps are not wholly submerged. Water stands on them only because of lack of proper surface drainage. After they have been properly drained rigorous care should be exercised to see that the landowners, who grow cane and coconuts there, keep their drains open.

Most of the mosquitoes in and about Mayagucz are bred in containers which are kept about the dwellings for the storage of water. Rain-water barrels constitute the greatest single source for breeding mosquitoes. The greatest number of barrels, tin cans, and cisterns are found in the poorer quarters of the town. They are used for the storage of water, but could well be eliminated if more public faucets were built, or there were enforced the now existing anti-mosquito laws, which provide that all containers of storage water be made mosquito proof. A competent force of inspectors could be employed to carry out these enactments. Mayagucz should be inspected at least once a week by two or three active men, who at the same time could do a great amount of educational work.

The town should be divided into two or three districts and each inspector assigned a certain fixed district which he would have to cover weekly. Each breeding place found during the week should be listed, and the inspectors should explain to the tenants why the rain-water barrels, tin cans, and other containers of water must be kept covered. The anti-mosquito regulations should be enforced when the instructions are not carried out within a reasonable time. In certain parts of the town there are a number of open ditches and drains which should be tiled, drained, or cemented, or, if this is not possible, they should be oiled weekly or oiled automatically. Automatic oilers can be regulated so that they will distribute sufficient oil to establish a film on the surface. All dumps where garbage is deposited should be gone over carefully once a week, and the tin cans which accumulate should be flattened so that they can not hold water which becomes stagnant. These places should be drained or systematically oiled. Such pools are not permanent breeding places; nevertheless, it should be remembered that the much-dreaded malarial mosquito breeds in standing water in fields, drains, open ditches, and swamps.

THE SUGAR POSITION IN CANADA.

A CORRESPONDENT in Canada, writing on December 31st, 1921, says:—

"You may have noticed an interview with Mr. Myers, in the Jamaica *Gleaner*, laying a great deal of blame for the low price of sugar on the high duties that are in effect in most countries to-day; and while there is some truth in his contention, there are a great many other troubles that will have to be corrected before duties. With us, while the duty on British sugars is not very high, the duty on foreign refined is enormously high, and gives our refiners altogether too much protection. To-day, granulated is selling at 7.40 cents by refiners less 5 per cent., whereas the raws they are melting to-day certainly do not cost them more than 4 cents duty paid; so that you see they have here a margin of over 3 cents a pound for any sugar they sell locally and of about 2½ cents a pound on what they distribute in Ontario and Quebec, which costs them about half a cent a pound to deliver. This is against a margin in the United States of about one cent a pound. Of course, one great trouble in Canada is that the refining capacity is probably 30 to 40 per cent. too great, and what would help us in Canada more than anything would be for one of the refineries to close up. That would enable the others to work at full time and reduce their manufacturing costs tremendously. They would then be able to reduce their selling price, and consumption would be considerably increased. They would also be able to compete for export business with American refiners. However, it seems to us that world conditions are gradually being straightened out, and we hope for and look for great improvement in general business in the early spring months of 1922. A lot of our friends, however, in Canada are anything but optimistically inclined."

THE COLONIAL CIVIL SERVICE.

The following transfers, promotions, and appointments have been recently made by the Secretary of State for the Colonies:—

DR. G. C. STRATHAIRN (Chief Medical Officer, Fiji), Senior Sanitary Medical Officer, Jamaica.

[Dr. Strathairn was appointed Medical Officer in the East Africa and Uganda Protectorates in 1908, and was promoted to Fiji in 1920.]

MR. J. P. COGHLAN (Legal Assistant to Attorney-General, Grenada), Stipendiary Magistrate, British Guiana.

MR. J. L. O'CONNOR, M.C. (Customs Department, Trinidad), Collector of Customs, Gold Coast.

[Mr. J. L. O'Connor, M.C., was born in Trinidad. During the war he came to England from that colony. He received a commission in the Queen's Westminsters, and was awarded the Military Cross for his service in France.]

MISS R. MCHENRY, Head Female Asylum Attendant, Trinidad.

MISS M. J. MARTIN, Charge Nurse, Trinidad.

MISS C. M. FRASER, Principal, Government Training College, Trinidad.

MR. H. B. PIDDUCK, Assistant Master, Dominica Grammar School.

LIEUT. A. B. WILLIAMS, Headmaster, St. Kitts Grammar School.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The result of experiments recently carried out at Rothamsted by Dr. Russell and Mr. R. A. Keene on the liming of heavy clay soils with chalk shows that, although there was much greater ease in working the land, no increase of yield was obtained, except in the case of clover.

The amount of crude potash salts produced in the United States in 1920 was, according to the *American Fertiliser*, 167,346 short tons, containing 48,625 short tons of potassic oxide (K₂O). The quantity of the latter produced from distillery waste was 8,258 short tons, and from the sugar refineries 2,894 short tons.

The *Agricultural Gazette* of New South Wales states that the result of investigation shows that the poisoning of stock from feeding on cacao meal or husks is due to the theobromine which they contain. The death list extends from horses to ducks. It was found in the cases of the former that 3½ lbs. of husks given daily for four days caused death.

The seeds of the leguminous plant *Bauhinia esculenta* have recently been the subject of examination at the Imperial Institute. The beans are known in South Africa as Gemsbok beans, and are used for native and animal feeding. The results show that the kernels of Gemsbok seeds are rich in protein and oil, the latter resembling cottonseed oil.

Experiments with fish meal have been, and are being, carried out in Scotland, under the auspices of the Scotland College of Agriculture, with the view of ascertaining whether the prejudice against its use for animals destined for human food is well founded. Chickens are fed with it, and at a stage when they are saturated with the meal are killed, and sent to the chef of an Aberdeen hotel for his report. It is presumed that the guests are unconscious agents in the experiment.

Sesame seed is an agricultural product which is susceptible of development. It is produced in Mexico, Northern Africa, Japan, the South Pacific Islands, and other tropical and sub-tropical countries. It contains an oil which is present to the extent of about 50 per cent., while the pulp is highly nutritious. This is as much oil as in the olive, and in taste, odour, and an adaptability for commercial use, it is said to be quite as desirable. The sesame plant has been harvested in India for 800 years, and is believed to have been brought there from Africa.

The Government laboratory of Jamaica has been conducting experiments for the production of pimento-leaf oil from pimento leaves. It has been found that pimento leaves yield about 1.8 per cent. of eugenol, from which iso-eugenol and vanillin can successfully be obtained. It has also

been found that iso-eugenol can be produced by the appropriate fermentation of pimento leaves. As eugenol is of high antiseptic powers, it is thought that this pimento-leaf oil would find use as an antiseptic constituent of tooth pastes and toilet preparations, besides serving for the manufacture of vanillin. If a market can be found, Jamaica can produce 100,000 lbs. of pimento-leaf oil per annum from materials at present wasted.

Perhaps one of the greatest sorrows of the age is the lessening rum consumption. This, as is the case with other spirits, is due to some extent to the high duty, but, mainly, it may be feared, to the change of habit of the people. The stalwarts of 150 years ago consumed it largely in the form of punch, and in much later days it was a favourite drink of the people. Rum brims over with rare stimulating properties, and there is reason to believe that this very quality caused its undoing, and led to its comparative disuse. The more modern internal economy cannot stand the habit of it, and the national taste has gone in consequence towards more silent and less sunny drinks. *Tempora mutantur nos* (that is to say, our digestive organs) *et mutantur in illis*.

In the 1920 Report of the Porto Rico Agricultural Experiment Station it is stated, with regard to vanilla, that limitation of production continues to show a pronounced effect on the size of the bean. In a test of the effect on production of pruning the vine tips and of shading heavily, both the pruning and the very heavy shading reduced the crop in a 3-year-old planting. Where the supporting trees were kept closely pruned to allow as much sunlight as possible to reach the vines, the unpruned vines gave three times as great a crop as the pruned and densely shaded vines, and more than twice as great a crop as where there was but a single variant factor, either heavy shading or pruning. On account of the frequent weeding, the unshaded plot required much more labour to keep it in order than the shaded plot, where weeding was unnecessary.

Laboratory work by Dr. Hutchinson and Mr. Clayton has shown that the breaking down of the material of straw—the so-called cellulose—in the formation of farmyard manure, is effected by organisms. One of these had eluded all previous investigators, but the Rothamsted workers have succeeded in obtaining it in pure culture and in studying it freely. In order that it may decompose straw it requires two conditions—air and soluble nitrogen compounds as food. If either of these is missing it ceases to act. Moreover, it will only attack cellulose; it is unable to feed on sugar, starch, alcohol or any organic acid yet tried. Given, however, the necessary nitrogen compounds and a sufficiency of air, the micro-organisms quickly decompose straw, breaking it down to form a black, sticky material, looking very much like farmyard manure. This has been investigated, and further quantities of the product are now being prepared for fertiliser tests.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.
(Continued from page 18).

Trinidad's Indian Colonials.

The East Indian National Congress and the East Indian National Association having paid me the compliment of inviting me to address them, we motored in to San Fernando after dinner and repaired to the Victoria Hall, where a joint meeting of those bodies was to be held. Mr. George Adhar presided, and was supported on the platform by prominent members of the local East Indian community, whose names are household words in Trinidad, such as Parmanan Pandit, Abdul Aziz, Yacoob Khan, David Mahabir, James Mungal, Adjotha Maharaj, L. D. Boodosing, and the Rev. C. D. Lalla, who was shortly to be invited to take a seat on the Legislative Council of the Colony after the lamented death of his greatly respected countryman, Mr. G. Fitzpatrick.

The proceedings began with a discussion regarding certain political matters, and a visitor could not fail to be impressed by the very reasonable tone of the speeches and by the absence of the personalities which too often characterise debates of the kind. This was the first occasion on which these two representative bodies had assembled in joint meeting, and the proceedings tended to demonstrate what a united front the local East Indian community could show. It was among this people that my old friends the late Dr. Morton and Dr. Grant laboured devotedly for so many years, and it was significant to note the applause which greeted the names of those worthies, the successor of one of whom was present in the person of the Rev. J. Bell.

Approximately one-third of the total population of Trinidad now comprises East Indian immigrants and their descendants, but for whose activity and thrift the condition of the islands would have been very different from what it is to-day.

Following some inconclusive experiments in the direction of the introduction of Indians into Trinidad, Indian immigration was begun in earnest in 1845, and it continued annually thereafter (with the exception of the years 1849 and 1850) until 1916. In that year, in consequence of the objection of some sections of the Indian people to the indenture system, which was really devised more for the benefit of the immigrants themselves than for that of the employers of labour, it was summarily terminated. It was the third Lord Harris, Governor from 1846 to 1854, who placed immigration into Trinidad on a stable and satisfactory basis. Standing Saul-like above the Governors of his generation, he, according to Surgeon-Major D. W. D. Comins, who visited the West Indies in 1891 to report on the conditions of the Indians there, overcame the obstacles to immigration from India, rescued the immigrants already introduced from destitution, vagabondage, and misery, and gave them prosperous contentment.

It is, unfortunately, a trait in the character of the West Indian labourer that he has a marked distaste for regular or continuous work. One heard this on all sides going down the islands. One heard it, too,

on the oilfields, where relatively high wages were being paid, so that it could not be said that it was a question of pay. This is where the Indians came in. They were immigrants from Calcutta, and their descendants are thrifty and hard workers who have contributed in no small measure to the prosperity of Trinidad of to-day. Like other West Indian Colonies, Trinidad has its labour question. Many years ago the planters used periodically to protest against the opening up of Crown Lands, because it took their labour away, but with a resumption of Indian immigration, it would be possible, one would imagine, to develop still further the industries of the island, and to bring still larger areas under cultivation; but any proposals in this connection will have to be on the basis of free colonisation, the system of indenture being now a closed book which can never be re-opened. Occasionally one heard objections to immigration. Those who raised them evidently failed to appreciate that they themselves were descendants of immigrants—some, it is true, sent to Trinidad against their will—the only aborigines in the West Indies at the present day being the few families of Caribs in St. Vincent and Dominica—and it is by no means certain that the ancestors of these "Indians" did not come from foreign parts. Apart from the Caribs, the entire population of the West Indies, whether white, black or coloured, is of immigrant origin—a fact of which sight is sometimes lost.

After many speeches had been delivered, including one by Mr. G. Moody Stuart, who was referred to by the Chairman rather prematurely as his "venerable friend," the proceedings were brought to a close in accordance with the usual admirable practice in those parts by the singing of "God Save the King." But the evening did not end there, for we—that is to say, the Moody Stuarts, *père et fils*, Forbes Todd, and the writer—were escorted with our other platform friends to the residence of Mr. Mootoo, where we were regaled at supper served by his charming nieces.

It was late when we returned to Ste. Madeleine, but the factory, now ablaze with electric light, and more like a great railway station than ever, was still continuing its tireless work, and we could not resist a further visit to its great mills, which possess a peculiar fascination for a newcomer.

All that night the cocks in Mr. Forbes Todd's back-yard were challenging those at some distant bungalow, and their constant crowing was punctuated by the barking of a sleepless dog. There was consequently no difficulty whatever in waking when Mr. MacLeod, the doyen of the sugar estate attorneys in the island, called to pick me up in his car at daybreak to carry me off to the oilfields at Puzabad, some twelve miles to the south of San Fernando. On the way we visited the sugar factories of Bronte and La Fortuné, whose destinies he controlled. In the latter an old beam engine, still heroically pumping away as it must have done half a century or more ago, with the name "Pauline Tennant" on the castings, recalled the fact that the property was formerly owned by the late Sir Charles Tennant. That distinguished Scotsman, the father of Mrs. Asquith and of the late Lord Glenconner, whose devotion to the island was very marked, was

largely interested in Trinidad, where his family is still represented by the firm of Tennant, Sons & Co. The engine was no doubt called after his daughter Pauline, afterwards Mrs. Duff of Drummair, who died in 1888.

The rich oil district of Fyzabad is the principal centre of the operations of the Trinidad Leaseholds, Ltd. Their oilfield is reached by a private road driven through the virgin forests. Near the junction of this private road and the Southern Main Road is the property of the successful little Apex Company, which was just preparing to drill its first well on the occasion of my visit, and in the neighbourhood we were shown "Roodal's" and a well recently "brought in" by Mr. Mitford at his first attempt. After penetrating the dense forest for a distance of about three miles, the private road reaches a clearing where the high woods give place to a forest of derricks and a conglomeration of bungalows, storehouses and pumping stations, etc., which brought home to me very forcefully the fact that the winning of oil is a rich man's, or a rich company's, game.

Granted that a well can be drilled for £10,000 to £15,000, £250,000 or £500,000 goes no way when you have to construct roads, clear forests, erect bungalows for the white employees, and lay down pipelines, and it is no good drilling a well unless you have the means of disposing of its produce. It is probably, therefore, in the amalgamation of the many small and under-capitalised companies at present in existence, or in their disposal to the large groups, that the best prospect of their success lies.

Another journey to the south took me to the world-famous Pitch Lake at La Brea, to which reference has already been made more than once in this narrative. There, in a mosquito-screened bungalow not a stone's throw from that remarkable basin of asphalt, we were entertained by Mr. P. Munoz, the manager, and his charming wife, whose house party included Mr. H. F. Previté and his nephew.

For years after the first discovery of the Lake by Raleigh, no use was found for the apparently inexhaustible supply of pitch which it contained. In 1805, Sir Alexander Cochrane, when Commander-in-Chief on the West Indies Station, sent two shiploads of it to England; but the experiment proved a failure, as the substance was found to require too much oil to render it useful.

During the Governorship of Sir Ralph Woodford, the first attempt was made to use asphalt for paving purposes, and pitch was laid over the soil in Brunswick Square, Port of Spain, in the hope that it would check the growth of the grass and weeds there. Far from doing this, however, it positively encouraged them, and added so greatly to the fertility of the soil that it was suggested that it might be used as a manure. The enterprising Governor next endeavoured to use it as an illuminant, distilling carburetted hydrogen gas from it to light a beacon on the tower of Holy Trinity Cathedral. The gas burnt splendidly, but the stench it made was so intolerable that the experiment had to be abandoned.

The real pioneer of the lake appears to have been

the tenth Earl of Dundonald, who first went out to the West Indies as Flag Captain to his uncle, Admiral Sir Alexander Cochrane. In a pamphlet published in 1857 he suggested a variety of uses to which asphalt could be put, namely (1) as a cement for piers, moles, breakwaters, sea walls, and shores defences; (2) as bituminous concrete for foundations of lighthouses, bridges, and other hydraulic works; (3) as a flexible adhesive bituminous compound for forming the joints of earthenware pipes; (4) as a covering for galvanic wires; (5) as pipes for the conveyance and distribution of water; (6) as a preservative from rust and decay, and (7) for coating water channels in porous strata. His agent was Mr. Conrad Stollmeyer, who had for some years been making occasional shipments of asphalt to England, but it was not until the late 'sixties that an asphalt industry was established on a commercial basis, mainly through the enterprise of Mr. J. W. Previté, Mr. H. A. Greig, and Mr. T. A. Finlayson.*

The asphalt is now principally used for paving purposes, and it may surprise some readers who have crossed Westminster Bridge, or have driven along the Victoria Embankment in London, to know that they have passed over an intrinsic part of the Trinidad Pitch Lake, for the admirable roadways on those thoroughfares are paved with Trinidad asphalt.

If the much persecuted tenth Earl of Dundonald could revisit the Pitch Lake to-day, he would hardly recognise the place. The virgin forest which in his day surrounded it has been cut down with the object of rendering what was once one of the most pestilential places in the island healthy, and many neat bungalows, looking like glorified meat-safes, have sprung up in the neighbourhood for the accommodation of the European staff. He would, moreover, find that the size of the Lake had considerably diminished. At one time it was believed that the supply of asphalt which it contained was inexhaustible, but this theory has long since been scrapped, and even to the writer the area of the Lake seemed smaller than it was some years ago.

The Asphalt Lake is one of Trinidad's great assets. Leased to the Trinidad Lake Asphalt Company, its concessionaires pay to the local Government a royalty of 1/8 and an export duty of 5/- for every ton of asphalt exported from it. In the previous year this royalty and duty yielded no less than £76,202, and when during the war the industry was brought almost to a standstill, the Trinidad taxpayer had cause to appreciate its advantages, since he had to make good the falling-off in revenue which resulted. Now the asphalt industry has got into its stride again, and as a paving material Trinidad asphalt is becoming increasingly popular. Like the prophet, it is not without honour save in its own country, and it is deeply to be regretted that it is not more extensively used for paving the towns and cities of the West Indies as well as those of many American and European capitals.

(To be continued.)

*An account of the subsequent history of the Pitch Lake is given in "The British West Indies" (London, Sir Isaac Pitman, 1913).

JAMAICA GOVERNORS.

BY FRANK CUNDALL, F.S.A.

IX.—Sir Hender Molesworth.*(Continued from page 15).*

Molesworth continued:—

"A gentleman of quality in Cuba has given information that they design an invasion of the north side of this Island, in the hope of getting negroes. It is not unlikely, and I have instructed the officers in that quarter to be very vigilant. I have ordered dispositions to be taken as to our recent losses, but several of the most material evidences are not in port and must follow by my next. These galleys and periaegos are mostly manned by Greeks, but they are of all nations, rogues culled out for the villainies that they commit. They never hail a ship; and, so they can but master her, she is certain prize. They lurk in the bushes by the shore, so that they see every passing vessel without being seen. When our sloops are at anchor they set them by their compasses in the daytime, and steal on them by night with so little noise that they are aboard before they are discovered. The Greek who was captain of a Spanish vessel, and who was condemned for piracy in Sir T. Lynch's time but reprieved, has since been accused of further piratical acts. I set the law in motion, and he will be executed on the 17th. The delay in hanging him was the occasion of so much sticking for Bauister. The Spaniard in this port has got but 150 negroes for both his ships; he would gladly send the smaller of the two ships away, but can get no convoy. When the great ship that is supposed to have fallen to leeward arrives, there will be freight enough for 1,500 negroes, and money to pay for them. Besides these another ship is expected from Carthage that would carry 400 more. What precious opportunities are lost for want of negroes! These ships cannot be supplied here unless the negroes be sent from Barbados or Curacao, for this country must also be supplied in some measure."

Joseph Banister was a pirate who had given much trouble, both on the sea and in the law courts.

On the following day Molesworth adds to his letter:—

"If my Lords think that our turtlers and traders should be protected, I hope they will procure us a small sixth-rate frigate in lieu of the *Guernsey* that is gone. For unless these galleys and periaegos are discouraged there is no safety for trade or plantations on the north side of the island. The *Ruby* is but enough to awe the greater sort of rogues, and is too big for the ordinary ones who find protection in shoal-waters. The *Bonito* does good service by crushing the little rogues before they grow bigger, but there is still a middling sort which she cannot deal with, and for which a sixth-rate would be most proper. I hope therefore that our solicitors will procure us substitutes for the *Ruby* and *Bonito*, when they are ordered home, and a sixth-rate. The Spanish ship I wrote of above is come into port without having seen the frigate, but the frigate is not misplaced where she is gone, for she is as likely to meet interlopers and pirates there as anywhere."

In November, 1684, Peter Beckford reported on the forts:—Fort Charles had 38 guns; Fort Morgan, 16; Fort James, 26; Fort Rupert, 28, and Fort Carlisle, 14; but the guns were all too small for the purpose for which they were required.

Molesworth had trouble not only with the pirates

of Cuba, but with the Governor of Petit Guavos, to whom he sent Captain Mitchell, without, however, getting much satisfaction.

In a letter to William Blathwayt, dated 3rd February, 1685, Molesworth wrote:—

"One, Gilbert, sometime chaplain of the *Guernsey*, was preferred by Sir Thomas Lynch to be rector of St. Dorothy's and should have had a very good livelihood. But having more of the beast than the man in him he committed so many scandalous actions that he was rebuked by Sir Thomas Lynch. Remembering the rebuke but forgetting his preferment, he has published the most scandalous libel against Sir Thomas that ever was heard, unworthy of a Christian, much more of one of his coat. He was indicted for this, fined good, and imprisoned for twelve months, under which sentence he still lies. I was too ill to write to you or the Bishop of London about it at the time, so that possibly his appeal might have reached the Lords before now. I enclose a copy of the libel."

"He that would murder when he pleased
And with the gout so oft diseased,
Whole will in ruling was his law,
To keep more nobler men in awe,
Because an ignorant jury,
Would not submit unto his fury,
Who made interest his only God
Was for our sins the scourging rod,
'Cause all he called knave or rogue
Would not be so, not served his vogue;
Who orphans cheated by his power,
Still seeking whom he might devour,
But Johnson's ghost by conscience spied,
Grew mad, and soon as madly died.
And now great ease Jamaica gains
By his ent'ring eternal pains;
And those who shall Governor be
Let the Devil and him agree.
The Prince of Darkness surely finds a rub
Since one more qualified for Beelzebub."

In March, 1684/5, the Council turned itself into a Court of Inquiry concerning "the Embezzlement or Concealment of Goods or monies piratically taken," and examined numerous witnesses.

The official news of the death of Charles II. reached Jamaica on the 10th of April, 1685, and James II. was proclaimed at St. Jago de la Vega and Port Royal the next morning, "with all possible demonstrations of joy and satisfaction by all present."

In May the negroes at a usual Saturday market at Passage Fort having made "some little disturbance," the market was suppressed by the Council.

At a Council meeting held on the 2nd of March, 1685/6, the Governor submitted a list of the prisoners of Monmouth's Rebellion destined for Jamaica, there to serve for ten years. Unfortunately this list has not been preserved.

At the same meeting Sir Philip Howard's Commission as Governor was read and noted.

Molesworth wrote in July, 1685:—

"I hope that Sir Philip Howard comes out fully instructed as to these affairs, for I do not know whether I did well or ill before in sending vessels to clear these coasts of pirates. But whatever my inclination, I could give no orders for want of a new commission, and was obliged to tell the people so, who pressed me to do it again. The inconvenience for want of this commission is great. The Judges refuse to sit, the jails are crowded, and the Marshal complains much of

the expense and difficulty of securing the criminals. Pray let me know when I may expect Sir Philip Howard."

On the 27th of September a Commission was issued from Windsor for Molesworth to be Lieutenant-Governor.

In August a disturbance amongst the Maroons, which broke out in Guanaboa Vale and extended to St. George, St. Mary and St. Thomas (in which was included the present parish of Portland), caused much trouble, which lasted until April, 1687. The steps taken to fight the rebels, and the means of providing funds, occupied much of Molesworth's time. Over the question of finance he had great differences with the Assembly. They wanted to raise funds by import and export dues. He told them they must tax themselves. In September, 1686, they came to a compromise, that £1,000 should be raised by an import duty on liquors, and £1,500 on the parishes by a parochial tax.

Martial law, instituted in Carlisle's time, was continued. An extra force of 120 men was raised, and £5 a head offered for every rebel taken; the Council patriotically offering, if the Assembly did not ratify it, to bear the expense out of their own pockets. Later in the month the offer of Captain Davis to go against the Negroes with his Indians and three files of English men was accepted by the Council, but in November he came back reporting failure owing to bad weather, and the Council contented itself with offering rewards for captured rebels, and sending three English files and "good dogs" under Colonel Bourden against the rebels.

In January, 1685-6, it was reported at a Council meeting that "there was little ready money left in the Treasury," owing chiefly to expenditure on account of the Guanaboa Vale rebellion. In February five others, Bernard, Beckford, Ryves, Ayscough, and Rose, were called in to advise with the Council on steps to be taken to suppress the rebellion. It was resolved to send out 12 parties of 18 men each, each under the command of a commissioned officer, with good gangs of dogs. On the death of the rebel Cuffee, the parties were reduced to three, but on the 1st of June the Assembly met to take fresh steps against the rebels to Windward. In the guerilla warfare a prominent factor was the destruction of the springes which they set for wild hogs, and these consequently robbed them of their usual food.

In October, 1685, two hundred rebels, under Monmouth, had been given by the King to Sir Philip Howard, and 160 had been shipped. Others were given to Captain Heywood.

The Governor-Elect, the Duke of Albemarle, claimed to draw half the salary and half the perquisites of office (arising from the Broad Seal and the Admiralty) from the date of the death of Sir Philip Howard, in April, 1680. In spite of the protest raised by Molesworth, this was granted.

(To be continued.)

STEPHEN MCKENNA, the well-known novelist and author of "Sonia," was a passenger in the *Ingenna* en route to Demerara and back.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Arrival of Antigua's Governor.

Hon. Donald McDonald, writing on December 20th, records the arrival on December 4th of the newly appointed Governor, Hon. Sir Eustace Twisleton-Wykeham-Fiennes, Bart., who was accompanied by Lady Fiennes, O.B.E., and his A.D.C., Captain Ronald Guinness. A large gathering assembled at the Jetty to welcome His Excellency, who proceeded to the Court House, where the usual oaths were administered by the Chief Justice. In a short address the Governor expressed his pleasure and pride in being appointed to govern such an old and loyal Colony, and emphasised his desire to do all in his power for the Colony in general, and the people of Antigua in particular. In anticipation of the Hon. Edward Wood's visit, the Unofficial Members of the Legislative Council have prepared a memorandum dealing with an increased preference in England on West Indian products; the greater control of expenditure by the Finance Committee of the Legislative Council; the investment of the Colony's funds; water supply and roads, etc. The Agricultural and Commercial Society has appointed sub-committees to prepare reports on most of these subjects, as well as on steamship service, telegraphic communication, public health, and education. A distinguished Canadian in the person of Sir George Foster has been recently visiting the Leeward Islands. Time did not allow for the reception of Sir George and Lady Foster on the voyage South, but arrangements were made for this on the return journey by the Committee of the Agricultural Society in conjunction with Mr. Hensell, manager of the Antigua Sugar Factory.

Barbados Crop Prospects.

The House of Assembly voted the sum of £396 10s. 2d. from the Public Treasury on November 28th to meet the Colony's contribution to the West Indian Agricultural College, this being one half of one per cent. of the average ordinary revenue of the three preceding years for the quarter. The House adjourned on November 29th after a record Session of 36 meetings, the previous largest number in any session having been 22. It is fairly certain, says the *Advocate*, that the crop will be better than last year, for which many estates are expecting to show losses on their working. When the Legislature is called together, it is not expected that there will be any contests in the constituencies with the exception of St. Michael, where Mr. R. G. Cave has notified his intention of not seeking re-election. The names of Mr. Peter Paterson, Mr. V. Hart, and Mr. Edwin Crouse are mentioned as possible candidates.

British Guiana's Sugar Losses.

Mr. J. V. Fitzpatrick, writing on December 14th, stated that there had at last been a break in the heavy rainfall lately experienced, and spells of brilliant sunshine had done much to improve the sodden and water-logged condition of the land. Depression in sugar circles becomes more intense, as the position of several estates

grows more critical. No reply having been received from the Government to the Planters' Association's request for assistance to the industry, made on October 24th, another deputation intends to wait on the Governor to impress on him the urgency of the situation. The average loss made by Demerara estates in 1921 is estimated at not less than £5 per ton, and for the industry to continue, it is urged that there must be security of markets in reduction in taxation, with an increased labour supply if there is to be any extension. The Chamber of Commerce have informed the Government that the matters on which they wish to confer with Mr. Wood during his tour in the Colony are: The cable and mail services; improvement in the harbour approaches of Georgetown harbour by deepening the bar; a trade agreement with the Mother Country for a term of years; a temporary increase in the preference given in Great Britain's tariff duties.

Dominica and Defederation.

A proposal is on foot to erect a co-operative factory for the manufacture of citric acid and it is estimated that a capital of £25,000 will be required for this purpose. The Legislative Council recently discussed the following resolutions which were moved by Major E. F. Becher: "Be it resolved that (a) the time has arrived, when the people of Dominica should be granted a measure of popular representation on the Councils of Government, and that (b) it is desirable that Dominica should withdraw from the Leeward Islands Confederacy." The resolutions were supported by Mr. Bridgewater (who seconded them) the Hon. J. C. Macintyre, M.B.E., the Hon. G. W. Penrice, Mr. L. Rose, Mr. Didier, the Hon. Dr. H. A. A. Nicholls, C.M.G., the Hon. T. Cools Lartigue, Mr. Richard Sharpe, Mr. Peter Noble, Mr. Joseph Jones, and Mr. A. W. Solomon, Mr. R. Walter, C.M.G., the Administrator, allowing the officials to express their personal views. The debate was summed up by Major Becher and the Administrator, having instructed the officials to vote formally against them, the resolutions were defeated. It is, however, regarded as impossible that the Government can disregard such an unanimous expression of opinion. The Local Government closed the first half of the financial year with a deficit of £3,372. Mr. and Mrs. F. Woodward have received a cordial welcome on their return to the island.

Mr. Wood in Jamaica.

On their arrival at Kingston in Elders & Fyffes's s.s. *Motagua*, on December 13th, Mr. Edward Wood, Parliamentary Under Secretary of State for the Colonies, Mr. Arthur Ormsby Gore, and Mr. R. A. Wiseman, were welcomed by the Governor, the Mayor, the leading officials and Hon. J. A. G. Smith, Member for Clarendon. On the following day a conference was held at Headquarters House with Elected Members of the Legislative Council, the Governor presiding. The Hon. A. L. Simpson, M.B.E., who spoke first, criticised the Privy Council, which, he said, was not satisfactorily meeting existing conditions in the best interests of the Island, to which nearly all its members were strangers. He objected also to the head of the Executive presiding over the Legislative Council, and to the nomination of any of its members. The power of the elected members to veto financial measures was a privilege often attended with embarrassment. Hon. J. H. Phillipps also referred to the financial condition of the Colony, which, he said, was in the most chaotic

state possible. Hon. A. G. Nash asked that the Government Railway, which yearly saddled the taxpayers with an increasing burden, be put on a thorough business basis. Replying, Mr. Wood said that the arguments which he had listened to from every member of the Council present would be of most material advantage in assisting his party in their deliberations. It would be unwise for him to enter into detail after only 24 hours on the Island, but having heard with an open mind and with sympathy the representations of the different sections of the community, he hoped to be in a position to advise the Secretary of State so that a definite settlement could be reached. As regards finance, he felt that whether in Jamaica or in the United Kingdom, whenever possible supplementary estimates should be avoided, but in fairness to the Executive the present abnormal conditions should be borne in mind. On the subject of Education, which had been raised by Rev. G. L. Young, they would find Major Ormsby Gore an expert. He then turned to the Agricultural College, the establishment of which in Trinidad, he said, was reaching the stage of being a *fait accompli*, and suggested the organisation of a West Indian Agricultural Conference to be held in Jamaica. In this and other matters, he pleaded for inter-island co-operation. On December 15th Mr. Wood and his colleagues conferred with the members of the Kingston City Council, Mr. R. W. Bryant, M.B.E., the Mayor, presiding, and subsequently received a deputation from the Agricultural Society, on whose behalf Sir John Pringle, Mr. A. C. L. Martin, Mr. Simmonds, Mr. Stedman, Hon. R. T. Williams, Hon. H. H. Cousins, and Mr. John Barclay spoke. Sir John Pringle promised that they would do everything to promote interest in the British Empire Exhibition, 1923. Mr. Wood was then waited on by a delegation from the Jamaica Imperial Association, introduced by Mr. A. W. Farquharson, who said that he hoped the visit would mean the beginning of a new era. It seemed of the utmost consequence that the severed relations between the Island and the Imperial Department of Agriculture should be resumed. Continuing, Mr. Farquharson strongly recommended the setting up of a State Bank in Jamaica, and urged the repeal of the supertax. In the course of his reply, Mr. Wood promised that whenever the chairman of the Imperial Association visited him at the Colonial Office in London, he should not be kept waiting. After luncheon, the Under Secretary held a fourth interview, on this occasion with Jamaica Law Society, represented by Mr. Corinaldi, Mr. W. Buggett Gray, Mr. S. R. Cargill, Mr. Ashenbafn, Mr. W. Morrison, Mr. Manton, Mr. Bryant, and Mr. Dunn. On December 16th the party travelled on a special train to Chapelton, accompanied by Hon. R. Nosworthy, Acting Colonial Secretary, and Major Lewis Thomas, Director of Railways. At Chapelton, Mr. Wood received a deputation from Frankfield Citizen Association, members of which were introduced by Hon. J. A. G. Smith, M.L.C. for Clarendon. Mr. M. T. McKay, who led the deputation, urged the extension of the railway. Mr. Wood afterwards motored on to Mandeville, where, as he subsequently confessed, he slept really well for the first time in his tour, proceeding the following day by train to Montego Bay, where they were welcomed by Hon. W. C. Kerr, O.B.E., and Hon. C. W. Hewitt. Addressing a meeting of the Parochial Board, of which Mr. T. H. Brown is chairman, Mr. Wood said that what had struck him more than anything else during his tour of the Island had been the intense spirit of loyalty to the Crown. As regards public appointments, the question ought

not to be one of geography but of merit, and if the best man was a Jamaican he should be appointed. Dealing with the subject of the home sugar duties, he did not see how Imperial free trade was going to prove practical politics. At Falmouth the same day, the party was welcomed by Hon. Guv Ewen, Custos and Member of the Legislative Council for Trelawny, Mr. A. L. Delgado, Chairman of the Parochial Board, Mr. W. FitzRitson, Mr. Joseph Stockhausen, Mr. E. D. Arscott, Mr. H. R. Milliner, Mr. A. S. Grey, Mr. George Taylor, Mr. E. L. Harris, Dr. Vine, Mr. Josiah Johnson, and Mr. S. H. Stewart, and a memorial was presented praying for improved transport facilities by land and sea, provision of domestic water supplies, morass reclamation, etc.

On December 19th, Major Wood, accompanied by the Governor, visited Western St. Mary, scene of the Land Settlement Scheme. A new township erected in connection with this scheme was named Wood Park in honour of the visit. On December 20th, continuing his journey along the North of the Island, Major Wood arrived at Port Maria, where he and his party, who were accompanied by the Governor, were welcomed by Hon. Rev. A. A. Barclay, Rev. W. T. Graham, and Rev. H. B. Walcott. The reply was made by Major Ormsby Gore, who said that the whole question of the parochial boards would require attention. He advised his hearers not to put too much faith in electrification schemes for the railway, all such schemes having failed elsewhere with one exception. At Port Antonio, where they stayed the night, the party were welcomed by Commander Codrington Hall, the Custos. Here again they met the Parochial Board, represented by Hon. A. E. French, Rev. A. V. Pelgrave (chairman), Rev. W. J. Thompson, Hon. D. S. Gideon and Major W. H. Plant.

Montserrat's Census.

The numbering of the people undertaken by Mr. A. K. Agar, the Registrar-General, discloses a sad state of affairs, the population of 12,120 being 76 less than it was in 1911; the increase by natural development was 1922, but this was more than set off by emigration mainly to Cuba, San Domingo and the United States. The progress of education is shown by the fact that 44.1 per cent. of the males and 52.6 of the females announced that they could read and write as against percentages of 28.7 and 34.8 respectively in 1911. The island has 2,337 inhabited houses, the population per house being thus 5.18. Of the total population 112 were returned as white, 9,595 as black and 2,503 as coloured. The island at the date of the census boasted one centenarian and eleven nonagenarians.

Tobago's Water-Driven Sugar Mill.

According to Mr. Robert S. Reid (December 12th) no further developments have occurred in the projected calling of a "Clyde" Line steamer at a Tobago port. Meanwhile enquiries are being made about covered barges, which will be required if any ocean steamer is to call at Scarborough, owing to the delay and prohibitive expense that would be involved in shipment from the shore under present circumstances. It is hoped that these enquiries from an American source may interest Canadian and Home steamship owners. It is noteworthy that the Local Government seems determined to take up the matter of the coastal service on its own account, and £50,000 has been allocated for the purchase or construction of a suitable steamer. The general impression, founded on past experience of

Government ventures, is that a contract service would be more satisfactory than one by Government steamers. Among recent visitors to Tobago has been the new Postmaster-General, whose predecessor for over 20 years never set foot on the Island. The Bishop of Trinidad is now acting as Rural Dean at Scarborough to enable Rev. H. R. Davies to have a holiday. This is only one of many instances of service on the part of Bishop Absteay. There have recently been good showers, and crop prospects are good in the Windward and North-side districts, but the Leeward planters would like more rain. A small water-driven sugar mill is being established near Pembroke. The soil is so suitable for sugar growing that one is tempted to hope that a central factory may yet be established in the Leeward district where there is a considerable acreage of undeveloped land.

Relief Measures in Trinidad.

Mr. Alick G. Hamlyn, writing on December 22nd, states that Sir Francis Watts and Mr. H. A. Ballou returned to Barbados on September 3rd, and Hon. J. de la Mothe, who had also been in Trinidad in connection with the establishment of the West Indian Agricultural College left for Grenada on the same date. The City Council of Port-of-Spain, faced with the urgent and difficult task of filling the vacancy caused by the death of Mr. C. A. R. Farrell, the City Engineer, on November 19th, lost no time in securing the services of Mr. T. H. Scott. The appointment is regarded as specially suitable in that Mr. Scott has already had two years experience in the post, having been Mr. Farrell's immediate predecessor. At a meeting of the Legislative Council on December 9th, the Hon. Aucher Warner, the Attorney-General, explained what the Government intended to do to tide the Colony over the present severe agricultural depression. Two Bills were read a first time, one having for its object the protection of embarrassed planters from the foreclosure of mortgages by advancing the mortgage interest, the other to make advances to enable planters to work their plantations. The recently raised £1,000,000 loan supplies the fund on which the Government propose to draw for the money required for this purpose, and relief is to be assessed by a specially appointed committee. The two Bills were passed through the remaining stages and became law on December 16th. In response to complaints that the price of bread has not kept pace with the fall in the price of flour, the Acting Governor has issued an order under the Food and Fuel Control Ordinance, 1920, fixing the retail price of a two ounce loaf at one cent. A serious fire took place in the shopping centre of Port-of-Spain on December 18th, gutting the centre store of Messrs. Salvatori, Scott & Co., and the hardware store of Mr. J. Gonzalez, and partly destroying the roof of the Hardware and Electric Supplies Co. During the year 1920, the Government Railways made a profit of £53,094, but the Southern steamer made a loss of £10,042, and the Island and Bocas steamer one of £1,428.

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 ls., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$30.40).

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6842.

Telegrams—
"Carib. London."



15, SEETHING LANE,
LONDON, E.C.3.

January 17th, 1922.

BANK RATE. Five per cent. as from Nov. 3rd, 1921.

EXCHANGE. Value of the £ Sterling.

	Jan. 3rd	Jan. 17th		Jan. 3rd	Jan. 17th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	2 17 3	2 17 8	In Spain ...	1 2 2	1 2 1
.. France ...	2 0 9	2 0 8	.. Germany ...	37 12 0	38 1 9
.. Belgium ...	2 3 2	2 2 8	.. Austria ...	454 0 0	312 1 5
.. Italy ...	3 0 7	3 15 8	.. Holland ...	18 3	18 11

The intrinsic value of the gold sovereign is £1 2s. 11d.

SUGAR. In the New York market the upward tendency reported in last Summary has continued. Sales of Cubans were yesterday made at 2.61 c., duty paid, landed, equivalent to 2 c. c.i.f. The values in the future market were: March 2.39 c., May 2.48 c., July 2.64 c.

The home market is firm, with a good demand. Crystallized West India was quoted yesterday at from 38/6 to 41/-, spot terms. London granulated was valued at 45/9, with 46/3 for fine qualities. Imitation yellow crystals were quoted at 40/3, American granulated 38/3 c.i.f. White Mozambique, spot terms, were worth 44/8, and white was down to 43/-. Cuban 96 deg. c.i.f. were worth 11/6. The terminal market values were:—

	Feb.	March	May
96° ...	12/-	13 6	12 7 1
White ...	17 10 1	18 0 3	18 6 3

The dissolution of the Sugar Finance Committee, which had been controlling sales of Cuban sugar, was marked by a greater disposition to offer and sell both new and old crop Cuba sugars. Messrs. Willett and Gray, in their *Weekly Statistical Sugar Trade Journal*, state that it seems more and more apparent that a differential will be established against old crop sugars, and at the present time it appears to amount to 1-16 c. per lb., so that while 1 1/2 c. c. & f. is obtainable for old crop sugars, 1 13-16 c. c. & f. can be considered a reasonable figure for new crop Cuba sugars in the same position. For the basis of our market quotations, we consider that new crop sugars will establish a fairer comparison than those of old crop, which in many instances have hardly inverted, and will test very low when delivered to refiners.

However, taking the market in general, it can be stated that it acted in a comparatively orderly manner, as many of the trade were in fear that as soon as the Finance Committee was dissolved that there would be tremendous blocks of sugar thrown on the market, and which would cause rapid and large declines, probably lower than situation warranted, but such has not been the case, the offerings at no time being excessively heavy, and the declines have been making in small fractions and usually on a fair amount of business. With regard to the future, Messrs. Willett & Gray point out that refiners are still only buying on a hand to mouth basis, and are carrying practically no stocks. Any sudden storm may, therefore, find them short of sugar.

The West Indian sugar statistics in London on January 7th were:—

	1921.	1921.	1920.
Imports ...	1	14	488 Tons.
Deliveries ...	895	1,023	1,345 "
Stock ...	4,061	7,395	7,259 "

RUM for home-trade and export is absolutely flat. The consumption for 1921 was 2,636,532 gallons, as against 2,182,207 gallons in 1920.

The stocks in London on January 7th were:—

	1921	1921	1920
Jamaica ...	11,014	9,185	6,456 Puns.
Demerara ...	17,426	14,984	14,429 "
Total of all kinds	38,262	34,223	28,069 "

CACAO is quiet, and the market interest is almost entirely confined to West African sorts. Fine Grenada is quoted at 50/-, and Trinidad at 32/- to 61/-, with only a small business passing.

Messrs. Edgar Tripp & Co. report that the shipments of Trinidad cacao during November amounted to 1,241,595 lbs., making a total of 22,977,285 lbs. for the eleven months.

To same date	1920	1919	1918	1917	1916	1915	1914	1913	1912
...
	62,432,820	57,737,543	55,578,342	68,229,372	52,875,425	45,869,353	61,638,436	46,431,247	40,472,755

The stocks in London on January 7th were:—

	1921	1921	1920
Trinidad ...	13,135	28,857	24,740 Bags.
Grenada ...	14,686	20,402	13,922 "
Total of all kinds	101,442	200,865	109,260 "

ARROWROOT remains very slow of sale, and prices are unchanged at 3d. to 6d.

BAY OIL. Further arrivals are meeting no demand at present, but there is no change to report in value.

COFFEE. For home-trade qualities the market is steady, with a fair demand. Export kinds are weak and slow of sale. Ordinary Jamaica is quoted nominally at 55/- to 60/-.

COPRA remains slow and dull. West Indian f.m.a. is valued at 224 10s., c.i.f. London or Hamburg.

GOTTON. Immediately after the publication of last CIRCULAR quotations of West Indian Sea Island were reduced a hundred points, and during the past week prices have further depreciated to: medium 24d., fine 30d., and extra fine 40d.

HONEY. No auctions are being held this month, the demand privately not having been sufficiently active to encourage large offerings. Prices are nominally unchanged.

LIME PRODUCTS. Lime Oil. Handpressed remains neglected and unchanged, but further small sales of Distilled have been made at 2/- per lb. Lime Juice. No interest is shown by buyers in Concentrated, and Raw continues quiet and unchanged.

LOGWOOD remains dull and unchanged. Supplies sold to dealers six months ago are still in their hands unsold.

ORANGE OIL. On the spot, Sweet is easier, but no business is passing; the nominal quotation is 10/- per lb. There is nothing doing in Bitter.

RUBBER. The market for Plantation has become dull, and very little business has been done during the week. America is idle and taking practically no interest at all. Spot crepe 10 1/2d., sheet 10 1/2d.

SPICES. On the spot, Pimento is still dull and lifeless, with sellers at 2 1/2d. A fair business has been done in January-February shipment to Hamburg at 19/- c.i.f., and shippers are now asking 20/-. First-hand stocks of Jamaica Ginger as previously reported, are exhausted, but some parcels in second-hands have been sold at 190/- to 200/- for good middling quality.

TRINIDAD OIL. Production for December: Apex (Trinidad) Oilfields, Ltd., 2,450 tons. Trinidad Leaseholds, Ltd., 18,250 tons.

WANT.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

LADY, wishing to go to West Indies, would take charge of child in return for travelling expenses. Apply H. S. c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, London, E.C.3.

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 6642.

Telegrams:
CARIB, LONDON.



15, SEETHING LANE,
LONDON, E.C. 3.

January 31st, 1922.

Imperial Preference.

THE announcement made by Mr. EDWARD WOOD at a meeting of the Associated West Indian Chambers of Commerce in Trinidad on January 20th, that the British Government had decided to make a Trade Agreement with the West Indies, guaranteeing the existing rate of preference for ten years, was naturally received with much enthusiasm, since it marks a distinct step towards bringing about that restoration of confidence which is so essential if the British West Indies are to prosper. It will be recalled that in our issue of December 23rd, 1920, under the heading "Imperial Preference—a Suggestion," we urged the adoption of this course, and the Associated Chambers of Commerce, at the invitation of their President, took the matter up very actively. We understand that the form of guarantee which the Government now propose to give will be an "undertaking" which will, we presume, *mutatis mutandis*, be similar to that which was given to the signatories to the Brussels Convention, when Great Britain pledged herself not to give preferential treatment to Colonial sugar during the continuance of the agreement. And in considering what form it may actually take, no doubt the Law Officers of the Crown will devise some means of securing for it binding force. There is, however, a fly in the ointment in that Mr. Wood said that it was the existing rate of preference—and not the value of the preference—which would be guaranteed for ten years. What is really needed to meet the situation is the continuance of preference

on sugar at a figure not less than that of its present value, for as the tariff now stands, the amount of the preference would be reduced when the sugar duties are lowered, and though no immediate reduction in the sugar duties is probable, it is certain that it must come about within ten years. A reduction to even half the present abnormal figure of £25 18s. 4d. per ton would mean a corresponding reduction of £2 2s. 9½d. per ton in the value of the preference, which would then stand at a figure that would be altogether inadequate. We cannot, therefore, too strongly urge that the undertaking may take the form of a guarantee of the continuance of the preference at a figure not less than that of its present value.

The Burden of Taxation.

MR. EDWARD WOOD, M.P., brought his stay in Jamaica to a close on December 26th. On that day he and his party embarked on board H.M.S. *Valerian*, and it is understood that he next visited in succession St. Kitts, Antigua, Dominica, St. Vincent, and Barbados; but so scanty was the cabled news of his progress that he might have been in Kamschatka instead of the West Indies for all that was heard of his movements until he reached Trinidad. This incidentally illustrates the deplorable state of telegraphic communication between the islands and this country, which has resulted in our Press having apparently appointed no representatives in the smaller colonies visited, though from Jamaica, on the other hand, admirable messages have come forward over the lines of the Direct West India Cable Company. It is clear from the newspapers to hand by the mail that Mr. Wood and his colleagues had twelve very strenuous days in the Isle of Springs. He appears to have attended at least fourteen or fifteen meetings, and to have delivered an astonishing number of speeches. In one of these, at Montego Bay, he made some interesting remarks on the subject of Imperial Free Trade, the adoption of which more than one speaker had warmly advocated. "Everybody," he said, "as far as I know, would like to have Imperial Free Trade if it were a practical policy. I don't think it is going to be practical politics. Many of the Dominions would like it; many would like the import duty taken off sugar, and sugar to have a free entry. That is the business of the Chancellor of the Exchequer; he has to raise money, and . . . indirect taxation is more easily collected and less objected to. The Chancellor would say the same thing in opposition to the free entry of sugar at this time. We in England are groaning under a burden of taxation that I don't think the people outside always realise the weight of. The Imperial Parliament gave preference to the West Indian Colonies in 1919, and although that is not as

much as a good many people would wish, I would like to say to those who might think so, that we, too, have difficulties on our side to raise money, and that it is not always possible in times of difficult money conditions to do all that others may wish us to do, whatever may be the arguments advanced." We, too, are inclined to believe that the crushing weight of taxation to which residents in the United Kingdom are subject is not always fully realised in the West Indies. We may perhaps, therefore, be permitted to give our readers overseas a few particulars regarding its extent. To begin with, let us take the income tax. Is it realised in the West Indies that a single man with an income of £500 derived from investments has to pay £76, or 15 per cent., to the State; that one receiving £1,000 similarly pays over £226, or 23 per cent., to the Imperial Treasury, whilst the "fortunate" individual with an income of £3,000 is mulcted in £918, or *no less than 30 per cent., in income tax and super-tax*? We very much doubt it. Let our readers compare the position of such a man with a resident in Grenada, for example, who would pay to the Government £5 12s. 6d. on £500, £25 12s. 6d. on £1,000, and £287 2s. 6d. on £3,000. So much for direct taxation; but it does not end there. Let our readers consider what the resident in these harassed British Isles must pay indirectly with such breakfast-table duties as £2 2s. per cwt. on cocoa, £5 12s. per cwt. on tea, £2 2s. per cwt. on coffee, and with £3 15s. 4d. per gallon on his spirits (making his bottle of 30 U.P. whiskey at least 12s. 6d.), and 15s. 7d. per lb. on his cigars. The resident is indeed caught at every turn: the cost of his telegrams and postage of letters, etc., has been doubled, and if he should go to a place of entertainment he must pay 6d. tax on a 2s. seat at the cinema, or 1s. 6d. tax on a half-guinea stall at a theatre, whilst if he should have his motor-car to take him there he must pay in taxation £1 per h.p. unit, which works out on the ordinary Ford car at £20 per annum. Then, to add to his troubles, there are the rates, which have assumed alarming proportions, having risen in twenty-six places in the United Kingdom to 20s. in the pound or more. There is not a man in the community who would not welcome a sweeping reduction in taxation; but the war must be paid for, and it is very obvious that no general relief can be expected as yet. Moreover, it must be very apparent from the figures given above that it is the income taxpayer who must have first claim, and there are many who believe that the surest means of improving trade generally would be by reducing the present exorbitant rate of 6s. in the £, which necessarily has a reflex action on the industries of the country. Mr. F. C. GOONENOUGH emphasised this point at the annual meeting of Barclay's Bank on January 25th, calling attention, incidentally, to yet another burden which the taxpayer in the United Kingdom has to bear, namely, the Corporation tax. "A reduction of income tax and of double taxation," he said, "would do much to improve trade and remove unemployment. . . . The trade of this country has developed largely under our limited liability system, but that system is now penalised by a corporation tax, and in consequence many companies may have to reduce

their dividends. Under this tax the State takes 5 per cent. of your profits before you draw your dividend, on which you are again taxed. This is only one of the many instances of double taxation. At the present time a relief in the crushing burden of taxation would enable those who are engaged in retail trades to reduce their prices, and others who are employers of labour would be able to give employment in many directions where they would gladly do so, but are prevented for the sole reason that they cannot afford it. There is a point which is, in fact, the limit of taxable capacity; beyond this only a straining effect is produced, which is paralysing to industry and to the earning capacity of the community as a whole." It should be clear, then, that a reduction of direct taxation is an object to be aimed at, and when work can be found for the 2,000,000 people at present out of employment in the United Kingdom, it follows that the consumption of sugar, cocoa, and other tropical produce will increase, and that is where this question is of importance to the West Indies.

The Sugar Situation.

THE sugar situation continues to cause anxiety. Like that of so many other economic products, the price of sugar has fallen considerably below the cost of production; but the general consensus of opinion among the experts appears to be that the worst has now been seen. That view is expressed by Mr. MANUEL RIONDA, who has stated that in his opinion there is no need for pessimism as to the future. He evidently believes, however, that competition will be keen, for he says that the removal of control will be an incentive to a determined effort on the part of individual producers to place the production of sugar in Cuba on a more efficient and economical level, and thus to instil new life and vigour into the industry. Cuba, he says, realises that on the present basis of consumption the market for her sugar in the United States is limited to 2,500,000 tons, but he adds that the market for Cuban sugar is world-wide, and that Japan and China, for instance, are now showing an interest in Cuban sugar. Here it seems to us that he overlooks the fact that those countries are supplied by sugar-producing countries in the East. Finally, Mr. RIONDA looks for increased consumption and decreased production as a result of the present low range of values. In this connection it may be noted that MESSRS. WILMETT & GRAY estimate the world's production for the current campaign at 15,907,313 tons, as compared with 16,587,212 tons for that of 1920-21. They place the cane crops at 11,009,813 tons, as compared with 11,843,868 in the previous year, and the beet crops at 4,897,500, as against 4,723,344, the reduction in their total estimate being accounted for by an anticipated falling-off of 986,040 tons in Cuba, whose crop for 1921-22 they now place at the low figure of 3,000,000 tons only.* This emphasises the fact that Cuba at present remains the principal factor in the situation. But the United States beet crop is not to be ignored, and some anxiety will result from the announcement that the President and Cabinet have reached a decision to ask Con-

*Since this article was written Messrs. Wilmett & Gray are reported to have increased their Cuban estimate to 3,500,000.

gress to limit the importation of Cuba sugar, and to increase the duties on such importations with a view to protect the United States beet sugar interests. Some light is thrown on this subject by MESSRS. WILLETT & GRAY, who, in their *Journal* of January 12, say: "Regarding the proposed new tariff, a meeting of the Finance Committee of the Senate was recently held in Washington, and the old battle between cane and beet interests has been renewed with increased feeling. The Senate Committee, while perfectly realising the deplorable conditions in Cuba, has, on the other hand, to consider the condition of affairs in the domestic beet sugar industry, and practically all the testimony given before the Finance Committee by the beet interests wound up as follows: Whose plea will Congress heed—that of Cuba, a foreign nation, or that of the domestic beet industry? While Cuba and the beet industry are thus arguing their different viewpoints and contending for different results—the one for increased tariff rates and the others for reduced tariff rates—the consumer apparently is not considered. With the present tariff on raw sugar at 1.60 c. per lb. for 99° test Cubas, the rate is close to 100 per cent., which is too high for a commodity as largely used as sugar, and really puts it in the luxury class as far as the percentage of duty is concerned. Just because the price of sugar is comparatively low, there is no just reason for assessing a tax of nearly 100 per cent. on same. If this theory applied to all other commodities, Congress would be swamped with protests. It might reasonably be stated that an emergency still exists in the domestic beet industry, and hence a continuation of the present Emergency duty of 1.60c. might be kept in force for the balance of this year. For 1923 a reduction to 1.25c. on Cubas, and for 1924 the old tariff rate of 1c. a lb. on Cubas would be a fair compromise, and which would include some consideration of the consumer as well as the manufacturing end of the trade, and hence should satisfy everybody. The beet industry made its greatest progress under tariffs on sugar not exceeding 1.348c. and 1c. per lb., showing that the present high rate of 1.60c. is not needed except during some emergency period." To return to the general situation. A hopeful feature is the fact that in many sugar-consuming countries stocks have been reduced to a very low level, and, as Mr. Rionda puts it, "America is now pretty well down to the bottom of her sugar bowl," the sugar in the hands of the traders and the consumers in that country being 400,000 tons below normal.

"CANADA must increase her number of people per mile in order to make her railways productive. At the least, the population must be increased by 10 millions in 10 years." These remarks were made by Colonel J. S. Dennis, Chief Commissioner of Colonisation and Development of the C.P.R., at a Canadian Club luncheon on January 23rd. If Colonel J. S. Dennis's requirements in respect of population could be met, Canada's consumption of sugar would probably rise to 600,000 tons, and that of cacao to, say, 25,000,000 lbs. The advantage that this would be to the British West Indies scarcely requires emphasis.

SOME NOTES OF INTEREST.

"Wha' sweet a mout' sometime hot a' belly."

THE consumption tax on sugar in Poland is 10,000 marks a cwt. It looks heavy, but is under a penny a pound!

MR. ALEXANDER DUCKHAM, F.C.S., has been appointed Chairman of the Standardisation Committee of Petroleum Technologists.

THE Hon. Mrs. Granville Ponsonby, who died on January 20th, was Mabel, daughter of the Hon. Charles Jackson, of St. Anne's, Jamaica. She married the Hon. Granville Ponsonby, third son of the late Earl of Bessborough, in 1879.

MR. F. N. PHIPPS, A.C.A., a partner in the firm of Messrs. Smith and Earle, chartered accountants, of London, sails for Trinidad on February 24th to open a branch office at San Fernando. Both Mr. Phipps and Messrs. Smith and Earle were recently elected to membership of The West India Committee.

AN admirable portrait of Mr. Robert Rutherford, Chairman of the West India Committee, is reproduced in the January number of "Production," the official organ of the British Empire Sugar Producers' Organisation. To the same number Mr. W. Scott Herriot contributes the third of a series of articles on cane sugar machinery.

TANKS have been erected at Cairns for storing molasses. They are capable of holding 30,000 tons (4,800,000 gallons), and the molasses is forced up into each tank through 12-inch pipes leading into the bottom of the tank. The molasses, says the *Australian Sugar Journal*, will be fed into the tank steamers by means of a main, which, by a bypath, can also deliver the molasses direct.

COMPLAINTS having been received to the effect that letters marked for despatch by special steamers were not being so routed, The West India Committee recently took the matter up with the Postmaster-General, who has now informed them that all letters marked for conveyance by a particular ship are forwarded according to the marking unless the ship has sailed or, for some other similar reason, it is not practicable to follow the direction given.

IT is with great regret that the CIRCULAR learns that Mr. Walter Hector Bagot, son of the late Mr. Walter Bagot, of Demerara, died at Cliff Cottage, Bournemouth, on January 21st. Mr. Bagot, who was only thirty years of age, served during the war with the 5th Norfolk Regiment in Egypt and Palestine, leaving the service with the rank of Acting-Major. Immediately before the war he was assistant Inspector of Schools in Grenada.

THE *Australian Sugar Journal*, quoting the *Cairns Post*, says that canes grown in the coast, Kilbos, Kibos, Kyamba, and Kubete districts in the Kenya

Colony have shown big sugar contents. In the Kibos district, Striped Ribbon cane, aged nineteen months, was found by the Government Analytical Chemist to contain 18.071 per cent. of sugar, with a juice of 95 purity. Uba canes of twenty-eight months also had accumulated 17.42 per cent. of sugar with 89.8 purity juice.

The Association of West India Trans-Atlantic Steamship Lines announce that the British Lines belonging to the "Conference" propose to adopt the Hague Rules, 1921, which have already been approved in principle by The West India Committee. The revised Bill of Lading defining sea-carriers' responsibility under the rules for the loss or damage of goods entrusted to them, will not be ready by February 1st, and the effective date for its introduction has still to be arranged.

MR. F. A. MITCHELL-LEDGES, the big-game fisherman, is so enthusiastic over the success of his sport in the Black River, Jamaica, where he has caught fish weighing 120 and 139 lbs., and one enormous red snapper, that he has taken a house in the island, and has cancelled his engagements in Panama and England. Mr. Mitchell-Ledges believes that Jamaica may prove to be one of the great big-game fish centres of the world, and hopes to obtain there photographs of sea cows of prodigious size.

SIR JAMES MICHELL unveiled on January 20th, at the London School of Tropical Medicine, a portrait of Sir Patrick Manson, painted by Mr. E. Webster, which was subscribed to by a large number of past and present students and other friends at home and abroad. In recognition of Sir P. Manson's services as a clinician, money has also been subscribed for a medal, which will be awarded annually to those who distinguish themselves in clinical work. The medal will bear a portrait of Sir Patrick Manson, by Mr. John Pinches.

The Right Rev. Edward Hutson, D.D., Bishop of Antigua, has been elected Archbishop of the West Indies in succession to Dr. Parry. Dr. Hutson, who was a pupil at Codrington College under Canon Bindley, was ordained in 1896, being appointed curate of All Saints', Antigua, in that year. He was Rector of St. Paul's, St. Croix, from 1908 until 1910, and Canon of St. John's Cathedral, Antigua, from 1906-10. His Grace visited this country two years ago for the Lambeth Conference. The new Archbishop's brother is Sir Eyre Hutson, K.C.M.G., Governor of British Honduras.

It is with regret that we learn that Mr. G. H. Piraudeau died at his residence, 57, Swanmore Road, Ryde, Isle of Wight, on January 14th, of pneumonia. Mr. Piraudeau entered the Public Works Department of British Guiana in November, 1879, and retired as chief clerk in 1914. In 1894 he was secretary to the Commission on the value of Government properties. He was a loyal member of The West India Committee for many years, and a regular reader of the CIRCULAR. He leaves a widow, who was Miss Doris Turrill, and three children, besides many friends to mourn his loss.

A CORRESPONDENT asks whether any reader can give him the name of the writer of the following doggerel, which he remembers having heard sung under the gallery of Beckwith's Hotel in Barbados in the 'seventies:—

"Mawrin Mistah Crosby! How you is dis mawrin?
I come to make complaint about dem dam Bah-badian.

Ah dem cheeky Badian, dey nasty wutless nation,
Mistah Brummel take em six by six an' ladge em
in de station."

"Crosby" was a famous Immigration Agent-General whose patronymic has been given to his successors ever since he departed. "Mistah Brummel" we know not.

THE condition of the Naval and Military Cemetery at Needham's Point, Barbados, is the subject of a letter appearing in "Notes and Queries" of January 14th. It will be recalled that the Civic Circle of the Lyceum Club, of which Lady Carter is President, and Mrs. R. Browne, Hon. Secretary, kindly undertook to put the cemetery, which was in a shocking state, in order. A complete list of interments in the cemetery, the latest of which took place as recently as 1914, is now published by our contemporary. Included in the list is the name of James Sims, Naval Schoolmaster on H.M.S. "Bacchante," who died in 1880, and "Notes and Queries" publishes a further letter in its issue of January 21st, recalling that Prince George (now King George V.): "Happening to have that watch, marched as the midshipman in charge of the funeral party of bluejackets and marines under the first-lieutenant."

THE provision of roofing material for buildings in the tropics is often a matter of difficulty. Corrugated iron is largely employed, but it is frequently very costly, and, moreover, tends to make the building unbearably hot. In several countries in Africa it has been suggested that roofing tiles should be made locally, and search has been made for suitable materials. Specimens of clay and sand, collected in Uganda, and of clay and diatomite from Kenya Colony, have recently been examined at the Imperial Institute in order to ascertain their possibilities in this direction, and the results of the investigation are given in the current number of the Bulletin of the Imperial Institute. It is shown that good tiles can be made from mixtures of the washed clays with "grog," i.e., clay which has been burnt and finely ground. The results obtained with the infusorial earth or diatomite (which contained a certain proportion of clay) are of special interest, as this material, which does not appear to have been employed previously for the purpose, furnished tiles which were much lighter than ordinary roofing tiles, which is a great advantage.

ROASTED YAM.—Throw a crop yam into the flames of the fire. When half done, take it out and scrape with a piece of broken glass. Repeat this at intervals until the skin is quite white and the yam soft through when you squeeze it. Then butter it.

THE WEST INDIA COMMITTEE.

Princess Mary's Wedding Gift.

The Executive of The West India Committee, having decided to offer a wedding gift to Princess Mary on the occasion of her marriage to Viscount Lascelles, the son of their President, felt that the members of the Committee would also wish to associate themselves with the presentation. An invitation to contribute was accordingly circulated, and a list of those who have responded to it will be published in next issue.

New Members Elected.

At a meeting of the Executive on January 29th, the eighteen candidates whose names are given below were admitted to membership of The West India Committee:—

Names.	Proposers and Seconders.
Dr. Q. B. de Freitas, M.R.C.S., L.R.C.P. (British Guiana).	{ Mr. W. M. B. Shields. Dr. C. J. Gomes.
Mr. D. J. Dorrell (St. Lucia).	{ Mr. C. Jongue. Mr. W. C. Clauzel. Mr. H. H. Hart.
Professor F. Hardy (Barbados).	{ Mr. A. E. Collens, F.I.C., F.C.S.
Andrew Barclay, Sons & Co., Ltd. (Country).	{ Mr. E. A. de Pass. Mr. R. Rutherford.
Mr. W. C. Andrew (St. Lucia).	{ Mr. W. C. Clauzel. Mr. Claude Jongue.
Mr. James Sanderson (Barbados).	{ Mr. W. R. Shilstone. Mr. J. D. Murray.
Mr. Alexander Fitzpatrick (Barbados).	{ Mr. W. B. Shilstone. Mr. A. A. Evelyn. Lt.-Col. O. H. E. Marescaux.
Major C. F. S. MacLarty, D.S.O. (Jamaica).	{ Mr. Lionel De Mercado. Major S. S. Stedman. Mr. E. A. de Pass.
Mr. George D. Henriques, J.P. (Jamaica).	{ Mr. A. F. Hammond. Mr. H. J. Freeman.
Messrs. Mackenzie, Stewart & Co. (Manchester), Ltd. (Country).	{ Mr. W. Duncan Thompson Mr. H. J. Freeman.
Mr. F. J. Foster (London).	{ Mr. R. E. Calder. Mr. J. Brookfield.
Mr. Arthur H. Rowland (Canada).	{ Mr. E. J. Shefford. Mr. G. H. Yearwood.
Major Edmund R. Branch, M.D. (St. Kitts).	{ Mr. Archibald J. Brooka. Lt.-Col. R. Deane, O.B.E.
Dr. R. A. Hoyte, M.B., Ch.B. (St. Lucia).	{ Mr. R. Rutherford. Mr. Cyril Gurney.
Lt.-Col. G. L. Hinds Howell, C.M.G. (London)	{ Messrs. C. Tennant, Sons & Co. Mr. H. J. Freeman.
Mr. P. N. Phipps (London).	{ Mr. F. Williams. Mr. F. Evans.
Mr. George S. Best (Camerouns).	{ Messrs. C. Tennant, Sons & Co. Mr. H. J. Freeman.
Messrs. Smith & Earle (London).	

BOARD OF TRADE RETURNS.

A Year's Figures.

The Board of Trade Returns for December last show that our total imports of sugar for the year 1921 amounted to 1,279,514 tons, of which 468,848 tons were entered under the heading of "refined," and 811,170 tons under that of "unrefined." This compares with a total import of 1,371,355 tons in 1920, consisting of 119,812 tons of "refined" and 1,251,543 tons of "unrefined." Of the refined sugar imports, 244,574 tons came last year from Europe, as against only 3,758 tons in 1920. Holland last year supplied 91,082 tons, Belgium 42,978 tons, and "other countries in Europe"—presumably Poland and Czecho-Slovakia—107,371 tons. France contributed 3,052 tons, and Austria 138 tons, a small item of one ton being attributed to Germany. No less than 171,816 tons came from the United States. Of the unrefined sugars, 256,798 tons came from Cuba, 184,748 tons from Mauritius, 111,732 tons from British Guiana and the British West Indies, 79,959 tons from Brazil, 78,385 tons from Peru, and 13,953 tons came from Europe. The total consumption for the year was 1,388,926 tons, as against 1,106,008 tons in 1920 and 1,731,129 tons in 1913. This is slightly below the estimate, owing to the December consumption not keeping up to that of the immediately preceding months, in spite of the lower retail price of sugar, the consumption in October having been 113,961 tons, in November 125,945 tons, and in December only 106,785 tons. The quantity of sugar provided by the home refineries during the year was 787,572 tons, as against 785,140 tons in 1920 and 715,660 tons in 1913. The stocks on hand on the 31st December, 1921, were only 166,050 tons, as against 889,850 tons at the same date of 1920.

The year's imports of cacao amounted to 1,214,832 cwt., as against 2,001,304 cwt. in 1920. 154,409 cwt. came from the British West Indies, comparing with 245,965 cwt. in 1920. The consumption was 917,279 cwt., rather less than the 1,013,024 cwt. of 1920, but still much higher than the 548,227 cwt. consumption of 1913. Exports amounted to 566,199 cwt., comparing with 874,737 cwt. in 1920 and 135,560 cwt. in 1913. Stocks on hand on the 31st December were 680,000 cwt., as against 967,500 cwt. on 31st December, 1920.

RUM.—The imports for the year amounted to 4,324,340 proof gallons, as against 3,882,400 gallons in 1920. The 1921 consumption was 2,036,592 gallons, as against 3,132,207 gallons in 1920 and 3,331,007 gallons in 1913. The stocks on hand on the 31st of December were 12,035,000 gallons, as against 10,588,000 gallons at the same date in 1920.

COFFEE.—The year's imports of coffee amounted to 566,728 cwt., as against 740,827 cwt. in 1920. The consumption was 306,819 cwt., comparing with 306,418 cwt. in 1920 and 260,296 cwt. in 1913. Of the imports, 5,830 cwt. came from the British West Indies, as against 6,734 cwt. in 1920. The stocks on hand on the 31st of December were 390,000 cwt., as against 638,000 cwt. on the same date 1920.

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.30).

SUGAR SITUATION IN HAWAII.

The following article is abridged from one appearing in the "Sugar Central and Planters' News of the Philippines." It gives an interesting account of the condition of the Hawaiian sugar industry, which, in spite of free entry of its sugar into the United States, would appear to be suffering from a serious crisis.

Hawaii is experiencing the most trying crisis of her sugar producing career. A careful analysis of the many influences affecting her present-day condition reveals six causes to which the situation can be attributed, namely:—

- (1) The bonus system.
- (2) The losses incurred by the Crockett (California) Refinery in 1920.
- (3) Last year's strike of plantation labour on the Island of Oahu.
- (4) The apathy of field and factory labour.
- (5) The shortage of labour.
- (6) The effect of welfare work on the plantations.

"(1) Had the unprecedented rise in sugar prices from 1918 to late 1920 been foreseen there can be no doubt that a bonus system based on the selling price of sugar would never have been instituted. Who would have predicted twenty-cent sugar in 1920? He who would have ventured such a slight of fancy would have been consigned to the home for feeble-minded, for, surely, no basis existed, or gave promise to become existent, for the assumption that sugar prices would even approach ten cents per pound. The bonus system is based on a fixed percentage payment on wages for every dollar per ton which sugar brings over a fixed figure. Only a part of the bonus is paid each month, final settlement being made annually, and there are certain restrictions placed upon the labour in that it must work a definite number of days per month and remain on the plantation for the bonus year, but the evils of a liberal bonus, out of all proportion to services rendered, can easily be appreciated.

"When sugar prices indulged in its fling at 'meteors'—as one sugar man aptly put it—all sense of proportion was lost, not only by the producer, but by the wage-earner. Liberality on the part of the producer was the order of the day, two dollars were spent when one should have sufficed, and a new standard of living became the rule with the worker. Silk shirted and automobile, he hailed the new condition as the arrival of the millennium. While doubtless a greater proportion of earnings were spent for food and necessities than before, it was the indulgence in things basically unnecessary, formerly out of the reach of the worker, which set up a new and disastrous standard of existence, to recede from which, in the light of conditions now fairly normal, is proving to be no easy task. The worker was awakened from his dream with a 'thump.' Small wonder that the economic life of Hawaii was to experience some painful jolts. So large were bonus payments that the thrifty labourers, particularly the Japanese, were able to set aside sufficient from their 'earn-

ings' to enable them to leave Hawaii for home when it became apparent that bonuses were to recede to normal figures, and many Filipinos departed for California to seek their 'fortunes.'

"(2) The local Planters' Association, or more properly the Association of Plantations, are owners of the California and Hawaiian Sugar Refinery at Crockett, which is recognised as one of the largest and most modern in the world. Hawaiian sugars have, until recently, been purchased by the refinery in identically the same manner as any independent refinery purchases its raw stocks—in the open market and at current prices. During 1920 the refinery purchased Hawaiian raws on an advancing market, but when ready to unload the bulk of them as refined the collapse in prices had come. In addition certain purchases were made of Javans and, while it is evident from available information that no direct loss was had in this venture in outside sugars, quite naturally, because of the importations of these sugars, a loss was felt later in disposing of refined Hawaiians which might have been disposed of sooner were not these Javans placed upon the market. The loss amounted to about 12,000,000 dollars, to offset which the interested plantations had to pay this amount on a production assessment of about 20.00 dollars per ton.

"Under the reorganisation scheme, which has just been effected, Crockett will henceforth refine sugar on a toll basis, paying only a part of the cost of raws upon receipt at the refinery; the balance to be adjusted later. This protects the refinery against speculation and enables the plantations to meet current refinery liabilities as they arise and not be again subjected to ruinous demands for monetary assistance at a time of a sugar market crisis. There are those who feel that the capacity of the Crockett refinery is too large—larger than the immediate needs of the Western States. Western beet sugar is still a worthy competitor of refined cane sugar, and possibly much Hawaiian raws will go to the East Coast for some years. The enlargement of the refinery, undertaken at a time of high labour and material costs, may prove to be very unfortunate.

"(3) For reasons which are not easy to ascertain—because of conflicting opinions—the Japanese labourers on the Island of Oahu, on which is located Honolulu, struck for higher wages in early 1920. There are those who hold to the belief that the real motive of the strike was an effort to place the industry in the hands of the Japanese. While the movement was said to have the active support of the Buddhist cult in Hawaii, it cannot be said that official Japan had anything to do with it. While threats were made upon those who did not support the strike, for example, that their names would be reported to the Mother Country for such action as might be taken later, these threats emanated from strike headquarters and surely had no official status. Japanese from all over the territory aided their striking brethren on Oahu, and for a time the results from the strike had a serious outlook. Acts of violence occurred, but no serious wanton acts of destruction of property were noted. Harvesting was, of course,

delayed, and agricultural operations were hampered, with the result that not only was cropping delayed, but this year's crops were adversely affected. The participation of the Filipinos in the strike was short-lived, chiefly because of the lack of organisation, but it is obvious that they did not have at heart any just grievance against the planters, and were easily induced to return to their duties.

"There are those who hold to the opinion that there was no concerted effort to Japanese Hawaii in the calling of the strike, but like the strike of eleven years ago, it was merely a manifestation of the desire to obtain in wages all that the traffic would bear. The Japanese saw that the bonus rate was soon to be reduced in keeping with the declining sugar market, and hoped to gain their ends by paralysing activities at a time when Hawaii was at the height of her post-war prosperity. That they failed is cause for congratulation, but that the influence of the strike was far-reaching and disastrous for the Territory cannot be gainsaid. Another 12,000,000 dollars was lost directly and indirectly through this strike.

"(4) There is a sinister influence at work among the labourers to-day. Whether it is due to the prosperity of the immediate past, or whether it is the direct result of the loss of the strike of 1920, or whether the movement 'to lay down on the job' has the Japanese labour organisation behind it, it is difficult to determine. It appears to us that to-day's condition is due chiefly to the effect of reduced income—both actual and prospective—and will continue until final readjustment is had. The foregoing of those pleasures and luxuries which were obtainable by the labourer as a result of swollen incomes cannot be had without economic disturbances, and Hawaii should be thankful for the fact that instead of acts of wantonness accompanying her readjustment of conditions only a passive protest or silent strike is being carried on.

"Agitation for another strike was at one time very pronounced among leaders of Japanese labour but the planters have handled the situation so energetically that the influence of the agitators seems to be waning.

(To be concluded.)

SIR FREDERICK LUGARD, P.C., G.C.M.G., C.B., D.S.O., has been appointed a director of the Colonial Bank.

In the Californian ricefield great damage is done by wild ducks. With the view of scaring away the birds, an aeroplane patrol was instituted over the ricefields in 1919. The system has proved so successful, says *California Fish and Game*, that five aeroplanes are now in operation, working day and night. But, while the rice farmers are delighted with the system, the American Game Protection Association is greatly perturbed by reason of the number of birds killed by striking the propellers and guy ropes, and has asked that the permits for the use of aeroplanes for this purpose be withdrawn.

SUGAR CONSUMPTION.

Quite a minor stir has been created, says the *Australian Sugar Journal*, as a consequence of the reported statement by the managing director of the Colonial Sugar Refining Company, that the consumption of sugar has fallen off. This has been seized upon as a text to illustrate the iniquity of the Commonwealth Government. Many anonymous writers in the newspapers are discovering that the reduced consumption is due to the high price of sugar, as a consequence of the Government's policy towards the great Queensland industry. The fact that consumption has fallen off all over the world, whether it be consumption of clothes, sugar, meat, or the labour of human beings, does not appear to strike these critics as being a remarkable coincidence. They see in lowered consumption in Australia the result of high-priced sugar. They see in the United States, where consumption of sugar has fallen off relatively by a far greater percentage, the result, one must suppose, of low-priced sugar—that sugar which they have been clamouring should be brought into Australia, duty free. Curiously enough, the same authority which stated that Australian consumption had fallen off also tells us that consumption in New Zealand has done the same thing. Yet, it will be recalled that during many months of controversy, New Zealand, being a Free Trade country, was quoted as supplying its people with the cheapest sugar in the world. There is reduced consumption all over the world—in Great Britain, on the Continent, and in the United States. The reduction has been largely brought about by the reduced capacity of the community to buy those goods in the manufacture of which sugar is an important ingredient. During the war people had to go without sugar, jam, biscuits, confectionery and so forth, or they were rationed down to a very limited supply. Even in Australia we were able only to buy sugar in very small quantities—2lbs. or 3lbs. at a time and per week. The result was that the householder perforce became economical in the matter of sugar, and he acquired the habit of doing without, of which, so far at least, he has not broken himself, even if he wishes to do so. Australia still consumes far more sugar per head of the population than any other country, and that fact alone should give the Cassandras, who are unable to see further than their own immediate surroundings, pause.

MR. ROBERT ANDERSON, of Montreal, has received a letter from the Hon. W. S. Fielding, formerly Finance Minister and now Minister of Justice in the Dominion of Canada, in which he states that the change of Government should not in any way affect the question of West Indian trade. Mr. Fielding adds: "I certainly am not less anxious than my predecessors to cultivate the best trade relations with the West Indies." This assurance was really hardly needed, for Mr. Fielding was, as has been shown in the CIRCULAR, one of the first to take up the question of closer trade between the West Indies and Canada.

CACAO IN ECUADOR.

The United States Department of Commerce is in receipt of an interesting report from the American consul-general at Guayaquil regarding cacao growing in Ecuador, for which we are indebted to *The Tea and Coffee Trades Journal*.

"Cacao," it states, "is planted on the lower lands not exceeding 1,000 feet above sea level, and requires a very rich yellow loam, with a depth of 20 to 25 feet. For this reason, all cacao groves are established on the banks of rivers or near them, as such land is formed by the deposit of silt. Should the roots of cacao trees reach a sandy or poor soil, both the quality and production diminish. They require an immense quantity of moisture, without which the harvest will be decreased by 50 per cent., while an excess of moisture with constant rains and absence of light and heat of the sun are the conditions that produce diseases of the plant. During a proper season the rainfall will average about 75 inches.

"A cacao plantation is established by clearing the ground of trees and underbrush, leaving, however, very large shade trees every 25 yards. The beans are planted direct from the pod in beds or boxes, remaining there until attaining a height of three to six inches, when they are transplanted to the groves in which they are to remain. Usually each plant is permitted to develop two to four stems.

"The small trees are planted 15 to 30 feet apart each way, and, as they require shade from the rays of the sun, banana plants are placed between the rows, which perform the double function of shading the tender plants and producing a profitable side crop. It begins to flower in the second or third year, but does not produce fruit in quantity until the fourth year, reaching its full bearing capacity, depending upon soil, climate and class in six to ten years.

"An average crop is one pound of cured beans a tree, although some trees produce five to six pounds, and an occasional tree even 12 pounds. In the past little attention has been paid to the care of cacao trees after planting, other than keeping suckers down, and as a result they become diseased and produce very small crops. Since the arrival of an American expert in cacao growing, a large number of cacao groves has been greatly improved through pruning, which permits the sun's rays to reach the inner parts of the tree, and in some instances the ground beneath is cultivated. The result has been more than satisfactory. It is not known for a certainty the length of the bearing age of the cacao tree, but there are some in Ecuador that are known to have borne fruit for more than 100 years, and are still in good bearing condition.

"The exported Ecuador cacao is recognised as being of these four grades:

"Arriba, which is regularly gathered from March to July, when the cacao attains its finest quality, the groves of which are to be found on the head waters of the Guayas River system. Balsao, which

is found toward the lower end of the Guayas River system, which is gathered from May to October. It is much inferior to Arriba, but as a rule much heavier crops are produced per tree. Muchala, near the city of that name, which is usually gathered during August, is deemed somewhat inferior to the other classes. Bahia de Caraquez is exported from the ports of the province of Manavi, the grade varying considerably between good Arriba and Balsao or Muchala.

"While there are definite periods for gathering these crops, more or less cacao is gathered in all the districts throughout the year. There are a number of insects that seriously injure the pod and sometimes produce a failure of the crop. Also in some seasons a hairy caterpillar appears in myriads, sometimes destroying them. In sections more elevated above sea level, at times the temperature lowers considerably, producing what is called a 'helada,' which permits a pest to destroy the pod and the beans within them. The Ecuador groves have suffered to a large extent by this pest. The pest has been confused with the ordinary one found in other countries, but after a careful study of it Dr. Rorer believes it due to a new species of microscopic vegetable growth."

CACAO IN UNITED KINGDOM.

Particulars regarding the importation of cacao into the United Kingdom during the years 1921, 1920 and 1918 respectively are given below:—

Imports from	1921.	1920.	1918.
Ecuador	Cwts. 17,629	149,931	79,671
Brazil	" 5,492	12,431	115,149
British West Africa	" 965,587	1,469,450	181,470
Ceylon	" 15,963	26,917	45,693
British West Indies	" 154,409	245,965	143,137
Other Countries	" 55,242	156,007	135,093
Total	1,214,322	2,061,304	699,639

Entered for Home Consumption	917,270	1,031,024	543,227
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Exports of cacao from the United Kingdom for the same years were as follows:—

Exports to	1921.	1920.	1918.
Russia	Cwts. —	1,794	16,827
Netherlands	" 168,154	236,858	19,692
Belgium	" 21,568	40,024	13,371
United States of America	" 75,771	116,897	19,190
Other Countries	" 300,706	479,164	65,980
Total	566,199	874,737	135,960

Stocks, 31st December	680,000	967,000	105,000
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ACCORDING to a Reuter's telegram, the Associated West Indian Chambers of Commerce have passed a resolution in which the opinion is expressed that it is impossible for the West Indies to contribute to subsidies for a transatlantic mail service at the present time. This will be a disappointment to traders in this country, many of whom do not like to depend on a foreign steamship company for communication with the British West Indies. The Chambers unanimously voted in favour of the establishment of a transatlantic steamer service in 1920, but it must be recognised that since then circumstances have changed, and the finances of several of the colonies are no longer in a satisfactory state.

THE EMPIRE EXHIBITION.

Following the cutting of the first turf of the British Empire Exhibition, at Wembley Park, on January 10th, the Royal Colonial Institute gave a luncheon, on January 18th, at the King Edward VII. Rooms, Northumberland Avenue, to Major Belcher, who left England two days later on a tour through the Dominions, with the object of discussing with the various Governments the arrangements for their representation. Sir Godfrey Lagden, Chairman of the Council of the Institute, presided, and the speeches were commendably brief. Major Belcher referred to the great interest that the King and Prince of Wales were taking in the exhibition, which was emphasised by a command which he had received to visit Sandringham and to report to His Majesty the progress of the undertaking. He then explained that the principal purpose of the mission was to give the fullest information to each Dominion Government of the purposes of the Executive Council, and to discuss with them the means whereby, particularly in certain sections, united action was desirable. He referred specially to the sections dealing with tropical diseases, Imperial fisheries, and mineral resources. The two former, especially, were matters of scientific and commercial research, and he was sure that they would agree that wise expenditure in this direction might be most fruitful in result for the administrator, the settler, the manufacturer, and the merchant.

The total guarantee fund for the exhibition has now been subscribed, and work at Wembley is actively proceeding. Probably, however, the exhibition will be held in 1924 instead of next year, as was at first contemplated. It is to be regretted that it will not be possible for Major Belcher to include the West Indies in his tour, but the managers are taking steps to acquaint those Colonies with the steps which it will be necessary for them to adopt to secure adequate representation. It is hoped that it may be possible to erect a special British West Indies pavilion.

DIAMONDS IN BRITISH GUIANA.

The following figures show the progress of the diamond industry of British Guiana since its inception in 1901:—

	Number.	Weight (Carats.)		Number	Weight (Carats.)
1901-02	91,206	8,227	1911-12	78,683	7,648
1902-03	163,680	10,447	1912-13	62,624	6,090
1903-04	164,315	10,742	1913-14	93,752	11,118
1904-05	175,400	10,519	1914-15	100,522	13,716
1905-06	65,752	4,097	1915*	19,461	3,678
1906-07	65,903	4,661	1916†	33,782	16,409
1907-08	29,007	2,122	1917	102,957	17,908
1908-09	63,161	5,618	1918	77,819	14,196
1909-10	85,537	7,181	1919	84,466	16,706
1910-11	26,467	3,025	1920	234,436	30,362

*April to March.

†Calendar year from 1916 and onwards.

The exports from January 1st to November 30th, 1921, weighed 80,651 carats, and included stones weighing 17½ carats, 18½ carats, 21 carats, and 30 carats. The journey to the diamond fields takes from 14 to 21 days from Georgetown.

RAT DESTRUCTION.

The best method of destroying rats is by chemical means. This entails a certain amount of risk in private houses and food warehouses, unless the work is carefully supervised and carried out. In a paper entitled "National Research on Rat Destruction," read before the Royal Sanitary Institution, and for a resumé of which we are indebted to the *Confectionery Journal*, Mr. C. L. Claremont said that the importance of the subject could not be gainsaid. The material damage caused by rats in the United Kingdom was estimated to be £2,000,000 in 1909, and in India the total losses, including those due to plague, were evaluated at £828,000,000 over a period of twenty years. A rat population of 10,000,000 pairs would number over 41,000,000 pairs at the end of twelve months, allowing for death and other wastage, and the cost of maintenance, at a farthing per day per rat, would be over £9,000,000 per annum. Further, the rat is a notorious carrier of disease; through the parasites which it harbours it gives rise to plague, trichinosis, rat-bite fever, and spirochaetal jaundice, and the dissemination of other diseases has also been attributed to it. For some years the Vermin Repression Society carried on vigorous propaganda, but it was not until war conditions rendered the problem even more pressing that the Government took action, which resulted in the formation of a Rats Branch of the Board of Agriculture and Fisheries and the passing of the Rat and Mouse Destruction Act of 1919. In the following year a research laboratory was established, together with a small factory for supplying raticides for use on Government premises. The work of the laboratory, which has only recently been started, has been the chemical examination of proprietary and other rat poisons, and the investigation of materials believed to contain such poisons, experiments on live rats being undertaken when necessary.

Of the methods in use for destroying rats, hunting and trapping are obviously of limited application. The virus method—i.e., infecting with disease—is uncertain. The susceptibility of rats varies, sub-lethal doses tend to immunise them, and the virus, by its passage through the rat, may become more virulent, and therefore more dangerous to human beings. Poisoning is undoubtedly the best method, and "gassing" is one of the most effective, for it kills the females and their young in the nests. Hydrocyanic acid and carbon bisulphide are very deadly, but as the former is colourless its use is dangerous even to skilled operators, and the latter is very inflammable. Chlorine and phosgene are somewhat dangerous for general use, and have to be stored compressed in cylinders, which are difficult to transport. Sulphur dioxide is best; it is easily handled as liquid, can be prepared on the spot by burning sulphur, and is not too dangerous, as its odour will warn the operator when the concentration is becoming too high. A mixture of sulphur dioxide and sulphur trioxide is stated to be more toxic, and to kill not only the rat, but also its parasites.

Of the solid poisons, phosphorus, arsenic, and strychnine must be ruled out as too dangerous. The desiderata of a good rat poison are: Relative harmlessness to domesticated animals; cheapness and availability; effectiveness; absence of a repellent taste; it must be easy and clean to handle and readily incorporated in the bait; and it should be stable. There are not many poisons which satisfy all these conditions, but those which most nearly do so are barium carbonate and red squill (*Scilla maritima*). Barium carbonate is rather more toxic to other animals than is desirable, and the disadvantages of squill are that the bulbs irritate the hands (thick leather gloves should be used); the preparations do not keep well (a defect which will probably soon be overcome), and the supply in this country has been irregular. Although the lethal doses of barium carbonate for many domesticated animals are known, the information concerning squill is very scanty, but, assuming the figures given by Abderhalden to be correct, it is probable that 10.66 grains would kill a rat weighing 0.5 lb., and 77 grains of the bulb would kill a dog of 10 lbs.

Successful poisoning naturally depends upon the nature and size of the bait employed. Experiments have shown that baits should weigh from 30 to 60 grains, and contain the following percentages of toxic agent: Barium carbonate, 25 per cent., or $7\frac{1}{2}$ grains in 30 grains of bait; squill bulb, 20 per cent., or 10 grains in 50 grains of bait; squill powder, 20 per cent., or 5 grains in 25 grains of bait; arsenic, 5 per cent., or 1 grain in 20 grains of bait. The bait should be ready for use and easy to handle, operations such as spreading on bread, etc., being undesirable. It should be capable of being applied without excessive handling, and in such a form that the amount required can easily be ascertained. Also, the bait should be attractive and freshly prepared, and each toxic agent should be used in a variety of baits, so that if one kind is not eaten another can be employed. The best general vehicle is a mixture of oatmeal and fat in the form of a hard paste, variety being obtained by the use of fish or cheese; or the poison can be mixed with flour and made into small biscuits with the various additions. For mice, coarse powders similar to the paste for rats, but with much less fat, are recommended. Three kinds are made—viz., plain, cheese, and fish. Squill preparations are prepared in a similar way, either chopped bulb or powder being used; biscuits and cake with cheese are the most useful forms. Only one squill paste is made, but, being uncooked, it is only suitable for immediate use. Squill is also prepared in the form of liquid extract. Baits containing no fish or cheese, and therefore without odour, should be slightly flavoured with aniseed.

PASSING a negro barber's shop door in Grenada, West Indies, a correspondent saw this notice thereon:

Teeth extracted.

With pain, 1s.

Without pain, 1s. 6d.

The latter, he ascertained, meant the application of a little cocaine—the former without.—*The Morning Post*.

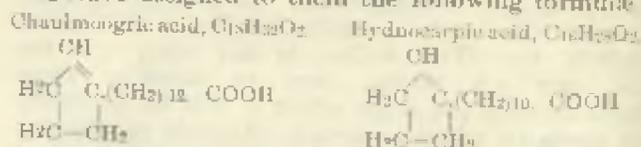
THE TREATMENT OF LEPROSY.

Chaulmoogra Oil Derivatives.

During the past ten years different workers in different quarters of the globe have developed the technique of the treatment of leprosy by derivatives of chaulmoogra oil, and although it is too early to claim that the disease can be permanently cured, yet there appears to be every possibility that these drugs will afford a true specific cure for leprosy. This, says the *British Medical Journal* of November 19th, would mark a very important advance in specific therapeutics, for until now all the triumphs of chemotherapy have been over protozoal diseases, and leprosy will be the first disease of bacterial origin to be cured by a specific internal disinfectant.

Says the *Journal*: Chaulmoogra oil has been used in the treatment of leprosy for more than thirty years. It was formerly believed to be derived from the seeds of *Gynocardia odorata*; the true origin of the oil was discovered in 1901 by Sir David Prain, who showed that it came from the seeds of *Taractogenos kurzii*, a tree which grows in Assam and Burma. Chaulmoogra oil is an evil-smelling and intensely irritant oil, which rapidly produces gastric disturbance if given by the mouth. For fifteen years it was given in intramuscular injections by Dr. Hopkins in Louisiana and by Dr. Heiser in the Philippines, but the injections were very painful, and although they undoubtedly produced benefit, yet the patients usually discontinued treatment as soon as their symptoms were at all alleviated.

Chaulmoogra oil contains two fatty acids, chaulmoogric and hydnocarpic acid. Hydnocarpic acid was formerly termed gynoecardic acid; these acids have been recently isolated by Dean and Wrenshaw,* who have assigned to them the following formulae:



If these formulae are correct, the acids are unique, for no other fatty acids with similar five carbon rings are known.

The progress made in the treatment of leprosy has been due chiefly to the substitution of non-irritant derivatives of these acids for the irritant chaulmoogra oil. Sir Leonard Rogers,† working in India, used the sodium salts of chaulmoogric and hydnocarpic acids. The preparations he had at his disposal were too irritant for repeated subcutaneous or intramuscular injections, but could be given intravenously. He used a dose of 0.2 c.cm. of a 5 per cent. solution twice a week intravenously, the dose being gradually increased to 5 c.cm. once a week. This treatment he found produced a great improvement in the majority of patients within three months, and treatment for six to twelve months removed all clinical symptoms in a large proportion of patients. He recommended a further treatment for a year to avoid relapses. The results obtained in many instances were extremely striking. In some cases of leprosy of twenty years' standing

*For Footnotes see foot of next column.

the treatment removed all clinical signs of disease. Microscopic examination of the leprosy nodules showed that the treatment produced a rapid destruction and disintegration of the bacilli in the nodules.

Rogers also tried the effects of other unsaturated fatty acids, and found that sodium morrhuate, the sodium salt of the unsaturated fatty acids of cod-liver oil, produced even better results than sodium hydnocarpate. In one series of 51 cases treatment with hydnocarpate caused marked improvement in, and rendered bacteriologically sterile, 41 per cent. of the cases, and a further 89 per cent. were improved. The Mission for Lepers in India treated 183 cases with sodium hydnocarpate and 117 cases with sodium morrhuate; the treatment was not concluded at the time of the report, but marked improvement had been produced in 70 per cent. of the cases. The results of Rogers with sodium morrhuate have not yet been confirmed by workers outside India.

Dean† in Honolulu treated leprosy with the mixed ethyl esters of the acids of chaulmoogra oil, to which 2 per cent. of iodine was added. The esters were given intramuscularly and by the mouth, six times as much being given by the latter as by the former route. This treatment was very successful, and it was found possible to release on parole 50 per cent. of the lepers treated, as being clinically cured and non-infectious.

Dean found on further researches that a purer and more fluid product, which was more readily absorbed, could be obtained by distilling the esters *in vacuo*. He also concluded that the results produced by intramuscular injection alone were as good as those obtained by combined intramuscular and oral administration. The absence of irritation with this preparation is shown by the fact that out of 6,924 intramuscular injections given only one produced an abscess.§ He also concluded that the pure esters were just as efficacious without the addition of iodine,|| and that hydnocarpic acid was more efficacious than chaulmoogric acid, and that probably the acids with the lowest boiling point were most effective. This suggests the possibility of finding derivatives of these acids of even greater therapeutic efficiency.

Walker and Sweeney¶ examined the action of the acids of chaulmoogric oil upon acid-fast bacilli *in vitro* and found that these acids produced a specific disinfectant action upon these organisms. This observation suggests the possibility of these substances acting in a beneficial manner upon tuberculosis, but experiments by Rogers, and by Voegtlin Smith and Johnson upon the action of these substances upon tuberculosis in animals have yielded negative results.

The results obtained by the treatment of leprosy with derivatives of chaulmoogra oil are of the very greatest interest; the reports cover a period of twenty years and deal with many hundreds of cases. The reports show that these drugs will alleviate the

great majority of cases of leprosy, and apparently will cure completely about 50 per cent. Some years must elapse, however, before it is certain that these apparent cures are permanent.

Leprosy has always been regarded as an example of an absolutely incurable disease, and hence these results are the more noteworthy. Moreover, the drug can be shown actually to cause the rapid destruction of bacteria living in the body; this represents a very great advance, and shows that it is quite possible that a specific cure may be found for tuberculosis. The development of the treatment is also of interest, because the fact that chaulmoogra oil has an action in leprosy has been known for thirty years. No really effective treatment could, however, be devised until fairly pure preparations of the active principles of the oil had been obtained. The advance in the treatment is, therefore, very largely a triumph for organic chemistry.

Messrs. Burroughs & Wellcome have prepared a preparation of the esters of chaulmoogra oil which they call Moogrol. The preparation contains no iodine; it is a clear oily fluid which does not produce any marked signs of irritation when injected subcutaneously into animals, and is intended for intramuscular injection. The dose is 1 c.c.m. rising to 6 c.c.m. for each injection.

The Coinage of West Africa.

The trade slump in West Africa has, says the *Staff Magazine* to the Bank of British West Africa, caused remarkable changes in connection with currency, and one of the results has been the restoration of convertibility to the notes issued by the West African Currency Board. Silver coin to the nominal value of several million pounds has returned to the banks, and the notes held by the public and the banks do not exceed £1,500,000 now, as compared with £4,000,000 in November, 1920, and a maximum of over £9,000,000 reached in February, 1920. This has imposed a very severe strain upon the cashiers and other members of the Coast staff, who have had to assist in handling such enormous quantities of currency. The labour involved in receiving is, of course, very much greater than in disbursing.

It must be a very great relief to have recovered from the public nearly all the 1s. and 2s. notes which were issued when there was a dearth of coin, and there should never be any need to use such small notes again.

The Currency Board has withdrawn from circulation, and brought back to England, silver coin nominally valued at £2,650,000, and it was thought that they would continue to replace by alloy coin all silver which returned to the banks, but this has not been found practicable. It will, therefore, be necessary to pay out silver coin as well as alloy coin, and this must inevitably create difficulty and annoyance in connection with the doling out to customers of spasmodic and inadequate supplies of silver coin when it is wanted in preference to alloy coin.

The total shipments of alloy coin made to the Coast by the Currency Board up to November, 1921, amount to £2,922,500, the first consignment having been dispatched in June, 1920, and there is no longer any scarcity of coin, but quite the reverse. Nickel coin has returned from circulation in embarrassing quantities, and it has been impossible to provide adequate strongroom accommodation for it.

*Dean and Wrenshall: *Journ. Amer. Chem. Soc.* 42, 2626 1920. †Rogers: *Medical Press*, June 15th, 1921. ‡Holman and Dean: *Jour. of Cutan. Dis.* 37, 367, 1919. §*Journ. Amer. Med. Assoc.*, 75, 1414, 1920. ||McDonald and Dean: *Ibid.*, 76, 1470, 1921. ¶Walker and Sweeney: *Journ. of Infect. Dis.*, 26 238, 1920.

THE MANUFACTURE OF CANE SUGAR.

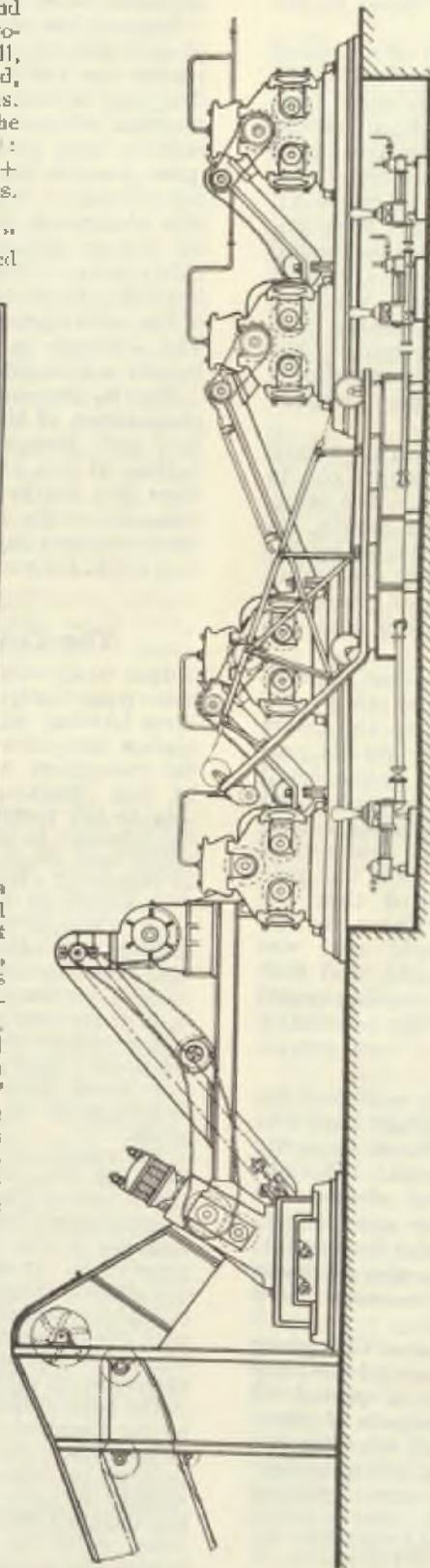
THE MANUFACTURE OF CANE SUGAR.
By Llewellyn Jones, M.I.E.S., and
F. I. Scard, F.I.C., with an intro-
duction by Mr. Algernon Aspinall,
C.M.G. Second edition, revised,
with 270 illustrations and diagrams.
Published under the auspices of The
West India Committee. London:
Duckworth & Co., 1921. pp. 481 +
xx., 8½ in. by 5¼ in. Price: 25s.
net.

"The Manufacture of Cane Sugar,"
which has been generally accepted

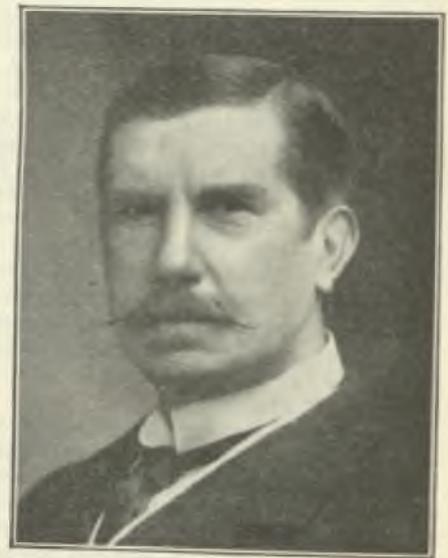


Mr. Llewellyn Jones, M.I.E.S.

as a standard work, forms one of a series of books on the agricultural industries published by The West India Committee in recent years, others being Mr. William Fawcett's "The Banana," which has also entered a second edition, the late Mr. J. Hinchley Hart's "Cacao," and Mr. F. I. Scard's popular catechism entitled "The Cane Sugar Factory." Since "The Manufacture of Cane Sugar" went out of print some years ago there has been a persistent demand for a new edition, but the publication of this was not practicable until now owing to the circumstances arising out of the war and the absence of Mr. Llewellyn Jones overseas. Mr. Jones was, however, in a progressive cane sugar manufacturing country and was therefore able to keep *au courant* with all the latest developments in the industry with which he and his colleague so ably deal. As a result we have been spared the ordinary "reprint," the book having been rewritten and brought into line with modern improvements in manufacture. Into the intricacies of these, which are



described in a singularly lucid manner, we do not propose to enter here, for we are confident that every company and individual connected directly or indirectly with the cane sugar industry will possess himself of a copy of the book. As Mr. Aspinall points out in an introduction, "The day has gone when estates proprietors could afford to depend on their managers and head overseers alone knowing what was moving in the sugar cane world. They must possess such knowledge themselves, and it must be imparted to the field and factory staffs if success is to be assured. No more suitable means of imparting it could be found than by this book." Among the subjects now discussed by the authors which necessarily did not receive attention in the first edition are, for example, the manufacture of power alcohol—the paramount importance of which can hardly be exaggerated in these days of keen competition when the marketing of by-products may turn a loss into a profit. Though perhaps it is hardly for us to lavish encomiums on a work



Mr. F. I. Scard, F.I.C.

published under the auspices of the body which we represent we must be permitted to congratulate Mr. Llewellyn Jones and Mr. F. I. Scard upon their achievement, and a word of praise must be added to the anonymous compiler of the index which is an important feature of a book of this kind.

The specimen illustration in the centre of this page represents a fourteen-roller installation with revolving cane-knives, crusher, etc.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

For the jaded nerves of the town dwellers there is nothing more recuperative or health-giving than farm life and farm occupation; and by no means the least important factor in producing this result is the smells of the farmyard. These are to a great extent ammoniacal, and act as a mild stimulant when associated with farm physical labour. Such are the advantages of going back, even temporarily, to the "land" and to the basis of national life and prosperity—agriculture.

Of the ingredients used in the manufacture of ice-cream, milk, cream, and condensed milk are by far the most prolific sources of bacteria. Apart from contamination from the utensils used, there is usually an increase in the number of bacteria resulting from the freezing process, due to the breaking up of groups of bacteria. During storage there is no increase in the total number of bacteria in ice-cream, and after the twenty-fourth day there is a gradual falling-off in their number.

The increase in the number of bacteria noticed in soils as the result of cold is due, as with ice-creams, not to multiplication of the bacteria, but to the breaking up of clumps of them. The power of resistance of the bacteria to cold depends upon the concentration of the medium, the length of time of the exposure, and to the degree of cold. The death of the bacterial cell when exposed to cold is due to the withdrawal of water from the outer layer of the cell.

Messrs. Jones and Tisdale have recently been investigating the subject of the effect of soil temperature upon the development of nodules on the roots of certain leguminous plants, and their results are published in *The Journal of Agricultural Research* (vol xxii., No.1). The main conclusion arrived at was that plants formed nodules equally at any temperature at which a plant had vigorous growth, and, incidentally, that plants with large nodules had a higher percentage of total nitrogen in the roots than in the tops.

Irrigation is being extended in connection with the cane cultivation in Mauritius, according to the Report, lately published, of the Department of Agriculture of that island. In the Ia Ferme scheme, the area under irrigation in 1920 was 2,600 acres, against 1,400 acres at the end of 1917, and the area included in this scheme is expected to be raised to 3,500 acres. Operations were also being carried out in connection with another scheme in the northern district. It is stated, however, that the returns from the irrigated fields were disappointing, and that the cause was being investigated.

In observations on the milk producing capacity of cows conducted by various associations in New York, it was found that, out of 847 cows, 89.6 per

cent. produced less than 5,000 pounds of milk per annum, of which 11 per cent., listed as two-year-olds, gave an average production of 4,404 pounds, 48.4 per cent. from 5,000 to 7,000 pounds per annum, 38.2 per cent. from 7,000 to 9,000 pounds, 3.8 per cent. over 9,000 pounds. The ration of grain feed to milk produced was practically uniform throughout, although there were some individual variations.

Experiments in connection with the effects of potassium salts on soil have recently been carried out by Mr. R. S. Smith, and an account of the results are published by the Cornell University. The soils experimented with were silt loams and the crop dealt with was wheat. In some instances the application of potash salts was found to have toxic effects, but these were overcome by the application of lime. No iron, aluminium or manganese was found in any of the water extracts of the soils; consequently the harmful action of the potash salts could not be attributed to these bases having been replaced by the potassium. Both the chloride and the sulphate replaced calcium strongly.

In a paper on the food requirements of children, Messrs. Holl & Fales state that the average caloric requirements are about 100 calories at per kilogram at the age of one year. For boys, it falls to about 80 calories at six years, and remains constant up to the age of 15 years. After a weight of 50 kilograms is reached, at about 15 years of age, the calories per kilogram can be rapidly reduced to the adult standard of 48 calories per kilogram. The requirement for girls falls to 76 calories per kilogram at six years, and continues at this value until the tenth year. At ten years of age it rises to 80 calories, and remains constant until the growth is complete, afterwards falling rapidly to about 44 calories per kilogram.

The nature of the food used in the nutriment of early youth is not only an important subject, but also one of literally absorbing interest. An article dealing with the nutrient requirements of growing chicks which appears in the *Journal of Agricultural Research* will, therefore, especially appeal to the poultry raiser. In this the position of maize as a diet is considered, and, as the result of experiments, it has been found to be deficient in several of the essential qualities necessary for growth, evidently due to a deficiency of ash content, as the supplementing of the corn kernel with 5 per cent. of a complete ash mixture improved matters considerably. The addition of 15 per cent. of purified casein, also, helped matters, while the addition of some other proteins, egg albumen and gelatine, acted prejudicially. Green foods are spoken of as being valuable contributions to a ration for growing chicks. The ash mixture above referred to consisted of 50 per cent. bone ash, 14 per cent. calcium carbonate, 15 per cent. of sodium chloride, 10 per cent. of dipotassium phosphate, 5 per cent. of calcium lactate, 3 per cent. of magnesium sulphate, 2 per cent. of sulphur, and 1 per cent. of iron sulphate.

TRADE OF GRENADA.

The trade of Grenada reached a record point in 1921, the value of the imports being £630,808, and of the exports £603,697, from a total trade figure of £1,234,500. The imports were £276,133 above the previous five years' averages, while the exports were less than in 1918 and 1919.

The following statement shows the value of the imports from the United Kingdom, the United States, and Canada:—

	Total Merchandise.
United Kingdom	£194,214
United States	212,929
Canada	90,944
Total	£498,087

While the value of the total trade of the Colony has doubled in the last decade, the trade with Canada has made an even greater relative increase. In 1911 this trade was valued at £28,020, the imports being £22,269, and the exports £757, and in the year under review had risen to £106,283. The increases have been chiefly in the imports.

As regards exports, the value of the foodstuffs was less by £59,700 as compared with that of those exported in 1919, but that of raw materials—cotton, hide and skins, plants and seeds, etc.—increased £85,950. Less nutmegs, mace, kola, and other nuts were exported. The value, however, of nutmegs and mace was greater. Most of the lime juice exported was in concentrated form, the combined returns showing a large increase over any recent year. The quantity of cacao grown and exported was less than in 1919, but the market price ruling high, the returns were satisfactory. Most of the cacao went to the United Kingdom, a small quantity only going to Canada. Coconuts and copra were well up to the average, and prices obtained fairly good. The export was among the West Indian islands. The United Kingdom took over two-thirds of the entire domestic produce of the island, the United States about one-fifth, and Canada to the value of £15,338.

QUANTITY AND VALUE OF THE PRINCIPAL DOMESTIC PRODUCE OF GRENADA IN 1920.

Articles.	Quantity.	Value.
Cacao cwt.	81,732	£466,658
Lime Juice (concentrated) gals.	22,610	9,025
Nutmegs cwt.	14,604	59,448
Mace cwt.	2,148	13,784
Cotton (raw) cwt.	3,348	40,950
Cotton seed cwt.	8,611	7,728

We have received the Report of the Department of Science and Agriculture of British Guiana for the calendar year 1919. It covers 152 foolscap pages, and is an indication of the enormous amount of work done by Sir John Harrison and his colleagues in the direction of agriculture. Unfortunately, however, the matter is now ancient history. The great value of reports of this nature lies in their giving up-to-date information on the subjects dealt with, and we trust that, say, by Easter, the Report for 1921, either in its entirety or in an abridged form, will be available.

JAMAICA GOVERNORS.

By FRANK CUNDALL, F.S.A.

IX.—Sir Hender Molesworth.

(Continued from page 40).

In August, 1687, Molesworth wrote to the Lords of the Treasury:—

"In obedience to your order I report on the perquisites of my office. The proper perquisites of the Government are only what arise from the Broad Seal and the Admiralty. The Broad Seal includes two items, patents granted for land, etc., and patents of naturalisation. The perquisites of the Admiralty are upon condemnation of goods and vessels forfeited by law, which are rare, and are generally appraised in favour of the sufferer. The accounts of passing patents on land, etc., from the death of Sir Thomas Lynch to the death of Sir Philip Howard amount to £530, and from that time forward to £25, making in all £555; those from the Admiralty within the same period amounted to £775 8s. 4d., making with the other a total of £690 8s. 4d. for the perquisites of three years' government. All escheats are valued by a jury of twelve, and are paid into the Treasury here. Sometimes, though rarely, the Governor makes some profit from the person to whom he grants it, owing to the undervaluation of the jury. But I have gained nothing by this means except a debt of £50, which had otherwise been lost. The profits from liquor licences are paid to the public revenues; passes for ships and marriage licences belong to the secretary, and are of no profit to the Governor. The salary paid to the Governor in Chief from the revenue here is £2,000 a year. I have been Commander in Chief without dependence on any one since the death of Sir Thomas Lynch, and as I enjoyed all the rights and powers of Governor in Chief I did not doubt my right to the whole salary and have lived up to it. I have spent £6,000 in this near three years of government, so that it is hard for me to pay £3,000 more to Sir Philip Howard's executors and to the Duke of Albemarle. I shall, however, submit, though I hope that the King will make it good to me some other way. It is true that for a little time, while the Assiento was in the hands of the Spaniards, we had a Spanish trade for negroes, by which I made some advantage, though infinitely less than my enemies assert, but these profits came to me only as a merchant, for the whole trade is supported by my money, credit, and conduct, so that considering the £3,000 I lose of salary I had better not have been Governor. I gave up a considerable trade in sloops that I might better attend to the affairs of Government, and as factor to the Royal African Company I was sufficiently qualified by my own money and credit to encourage the Spanish trade without any other assistance from Government beyond the King's regulations. I hope, therefore, that the whole of the perquisites may be allowed to me."

An interesting picture of seventeenth century Jamaica is given in a letter, dated November 6th, 1686, from Henry Eggleton, Clerk of the Council, to Bathway:—

"At the Council's rising on the 13th October the Governor reminded them that the next day was the King's birthday, which was duly celebrated. The Governor reviewed the regiment, many of whom were in scarlet, which they had provided expressly for the day. The Governor entertained all the principal gentlemen and officers with a very sumptuous dinner; and in the evening the Governor's lady being waited

upon by all the gentlewomen of quality, gave them a very fine treat, and afterwards entertained them at a ball, composed of a suitable number of masqueraders, very curiously habited, and variety of music, all managed with that admirable order as gave great beauty and grace to it. They continued dancing very late, but the streets shone with bonfires to light them home."

One of the earliest circular letters from James II. to the Plantations was as follows:—

"Parliament has granted us an aid for the maintenance and repair of the Navy to be raised upon all imported sugar and tobacco, according to the rates set forth in the enclosed Act. The imposition being laid not on the planter or merchant but on the retailer, 'consumptioner,' or storekeeper, we are assured that it will not be burthensome but rather advantageous to your Government."

To this Molesworth sent to Blathwayt a reply which has a strangely modern ring about it:—

"I must not omit to tell you of the vast discouragement that will be thrown on planting by the additional duty on sugar. It will certainly throw new plantations out of cultivation, and prevent the enlargement of others. The ordinary charges and risks of planting forbid us to bear any additional burden, much less this duty, which makes (with what we pay for Customs and Excise) more than half the clear production of every man's estate. If the gentlemen who impose this on us would tax themselves in the same proportion, we should be the most satisfied persons in the world. But what discourages us most is to see how the gentlemen of the House of Commons (for some mistaken interest) are set against us. It may often be in their power to ruin all the plantations unless the King interpose. Those that persuade the King that the duty will fall only on the expender argue well, supposing that no other nation made sugar but ourselves. But when we consider that the French, Dutch and Portuguese are all our competitors, and that the chief vent for our own is in foreign markets (which, by this additional duty, will be lost to us), all their reasoning is invalid, and tends only to destruction of the plantations. The short of it is, that Virginia receives a mortal stab, Barbados and the Islands fall into a hectic fever, and Jamaica into a consumption. These are my private thoughts, though I tell others not to be discouraged, for the more we pay to the King the surer we shall be of his protection. But our great hope is that the King will not pass it, for when the Ministers consider that, in consequence of this duty, no more white sugar can be imported, so that in seven years the revenue will be much less than it was before the additional duty, while the only advantage thereof will be to the refiners, and the ruin of the plantations will inevitably follow, we have reason to hope that the Act may not pass, or that an equivalent duty, less disadvantageous to the public, may be substituted."

But he wrote later, in September:—

"I find that the additional duty on sugar is much otherwise than we apprehended. We believed that it was to be paid on all imported sugar without exception; but, considering that it is only to be paid on what is expended in England, and that our exported sugars are free from it, I incline to the opinion that it will fall chiefly on the expender. For so much as is necessary for the expense of England will still be brought up and, so long as our exportation is free, it will be in the merchants' power to place this duty on the consumer. I do not mean that it is so directed by the Act, but that it ought to fall out so by natural

course of trade; and if it happens otherwise, it must be for want of management of the merchants."

In January, 1686, Molesworth wrote home that Captain Musgrave and others proposed to start a cotton manufacture.

"The result would be to further the settling, improving and strengthening of Jamaica by the addition of many small plantations, and to find employment for many of the lower sort of people who would otherwise seek a livelihood by privateering in this Island. For the encouragement of the undertaking, they beg that the King will grant to the undertakers, 1. The monopoly of all cotton manufacture in the Island for a term of years, being a new invention there. 2. The Royal assent to an Act to compel burying in cotton in Jamaica, as in the like case for burying in woolen in England. 3. The imposition by the same Act of a duty on all cotton yarn and cotton manufacture imported. I beg for instructions."

This was referred to the Customs, who reported as follows:—

"The grant of a monopoly for a term of years will affect the trade of this kingdom as to the export of manufactures to Jamaica. The more such manufactures are encouraged in the Colonies the less they will be dependent on England. Moreover we have no knowledge how far the grant of such a monopoly may be for the benefit of the trade and inhabitants of Jamaica in general. But if the King be inclined to grant it, we beg that some of the principal merchants trading to Jamaica may first be consulted. We have nothing to object to an Act for burying in cotton and imposing a duty on imported cotton manufactures."

At this time the Colony was put to considerable trouble and expense in repressing a negro rebellion. In July, 1686, he wrote home:—

"The Assembly have considered that part of my speech which deals with raising money for the expense of the negro-rebellion, but though unanimous that the thing shall be done, cannot agree as to the manner of doing it. They are willing to have the parties paid and their estates secured, but they do not wish to be at any charge themselves, and therefore have been very industrious in finding out such other ways of doing it as may best answer that end, without regarding whether they be reasonable or practicable. But being hotly carried in by the two lawyers, Elletson and Musgrave (chosen on purpose to obstruct the Government as much as possible) with that plausible notion of saving the country money, the Grand Committee decided to lay a duty on exported negroes, and additional duty on wine, an impost on all goods imported in foreign bottoms (viz., the Assiento), and an impost on money and bullion exported. When this was reported by the Chairman, some of the House (by my order) declared they had heard me say that most of these proposals were contrary to my instructions, and that I could not assent to them, so that it would be useless to proceed further with them. They then sent me a message, asking how far their proposals were consonant with my instructions. I answered with all candour and integrity, that three of the four were inconsistent with my instructions, and as to the fourth, the additional duty on wines, though I had no special instructions, yet my reason told me the King would never consent that the money raised by duties on foreign merchandise should be applied to such a use as securing ourselves against our own slaves, and that it would therefore be better to add it to the revenue."

(To be continued.)

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 58.)

Back to Bridgetown.

Interspersed among these expeditions into the country districts were several meetings in Port of Spain. Both the Chamber of Commerce, under the chairmanship of Mr. George F. Huggins, O.B.E., and the Agricultural Society, under that of Mr. Henry Warner, gave me the opportunity of explaining the objects of my mission, and a very gratifying increase in The West India Committee's Endowment Fund resulted, a substantial sum of money being collected in the Reading Room of the Naval Station, where the Chamber met. Then there was a banquet given by the Trinidad and Tobago members of The West India Committee at the Queen's Park Hotel, at which Mr. Gordon Gordon presided, and many nice things were said. It proved a most enjoyable function, and showed what a cohesive body the local members of The West India Committee have become. The only disappointment was that Mr. Edgar Tripp, who, with Mr. W. C. Freeman and Mr. Scheult, had made the arrangements for the entertainment, was unable to be present, since he was suffering from the effects of a fall down a staircase at Santa Cruz. Finally, as a wind-up to a happy fortnight, there was a picnic at the Bocas, where, on the island of Monos, my host had in "Balmora" yet another country seat.

From Trinidad it had originally been my intention to proceed to British Guiana and thence to Jamaica. Twenty years ago it was possible to reach that island from Georgetown, the capital of the former colony, or from Port of Spain in about a week. In those days the West Indies were served by three Intercolonial steamers—the *Eden*, the *Esk*, and the *Solent* of blessed memory—linking Barbados with British Guiana; the Windward Islands, and Trinidad; and the Leeward Islands respectively, while the transatlantic steamers, which sailed from Southampton every alternate Wednesday with the regularity of the Scotch express, and reached Barbados on the following Sunday week, proceeded direct to Haiti and Jamaica, thus bringing the last-named island within four days of Bridgetown. How times had changed! It was now easier to reach Jamaica from England than from British Guiana and Trinidad. The only possible means of getting from Bridgetown or Port of Spain to Kingston via New York (which could not take less than three weeks, and might occupy a month or six weeks), or by trusting to a chance sailing along the Spanish Main in the hope of making a connection at Colon with a north-bound tramp or fruit steamer. Consequently, when one morning in the Union Club, Sir Allan Everett, the Admiral in command of the 8th Cruiser Squadron, offered to take me as his guest in his flagship, H.M.S. *Calcutta*. "If you don't mind the inconvenience," as he put it, "of touching at Colon on the way," it is needless to say that the offer was thankfully accepted, though it was a great disappointment to have to cut Demerara out of my itinerary on this occasion. It transpired,

however, that the *Calcutta* was also to visit Belize, British Honduras, a colony which it had never yet been my fortune to visit. This was some consolation.

The *Calcutta* was to escort H.M.S. *Renown*, which had just left Portsmouth for Australia with the Prince of Wales and his Staff on board, from Barbados as far as Colon and possibly Panama. By a stroke of good fortune, the R.M.S. *Arada* was scheduled to leave the Gulf for Barbados a few days later. The morning of 21st March accordingly found me bidding farewell to my generous hosts on the wharf after an exhilarating early morning drive to the Santa Cruz Valley and over the Saddle to say "Good-bye" to my old friend Tripp, and embarking on that little vessel. Accompanying me on this voyage was my tall and complacent friend of whom mention has already been made. He was going to Barbados full of eagerness to meet his brother, Kenneth E. Previté, a lieutenant in the Royal Marines, who was on board the *Renown*.

The passage from the Gulf to Carlisle Bay should not take more than twelve or fourteen hours; but our steamer was small, and she was presumably taken out of her course by the trade wind and the ocean currents, for at six o'clock on the following morning we found ourselves near the north coast of Barbados instead of at Bridgetown, where we had expected to be at that hour. We had, therefore, to coast all down the island, though this was no hardship, since it gave us an opportunity of admiring its low terraced hills of sugar-cane and the old-world charm of Speightstown and its swift schooners. It was past eleven o'clock when we dropped anchor at last among the four-masted sailing-ships, tramp steamers, bum-boats and lighters of Carlisle Bay.

On reaching the shore, we found Barbados in a state of suppressed excitement over the Prince's forthcoming visit. Little else was talked about, although crop was in progress; but the latter was turning out a good one, and prices of sugar and fancy molasses were booming, so nothing else mattered. Everybody was in the best possible humour. Captain Wigham Richardson, the Aide-de-Camp at Government House, where the Governor and Lady O'Brien had been looking up precedents and preparing to establish new ones for weeks past, was putting the finishing touches to the arrangements for the reception of the Royal visitor, and reception-, ball-, decorations- and route-committees were meeting at all hours of the day and night. Young ladies were actively discussing the question as to whether they should wear at the dance long or short sleeves, it being rumoured that in Canada, His Royal Highness had only selected long-sleeved partners—the short-sleeved party won the day,—and the stores were doing a roaring trade in bunting (mostly yellow and white, which formed the colour note of the decorations rather than red, white and blue, which one would have expected), boiled shirts, white ties and gloves, the supply of which last fell so far short of the demand that many a guest at the dance had to resort to the mean subterfuge of sharing a pair with another one, each carrying a single glove in his hand.

Under the guidance of Lady Gilbert Carter, the ladies of the Civic Circle, including Miss M. Law,

Mrs. Lyons, Mrs. White, Miss M. Packer, Mrs. J. H. Wilkinson, Mrs. Bannister, Mrs. E. A. Hinkson, Mrs. Jack Murray, Miss Herbert, Miss Pickford, and Mrs. Deighton, with a smattering of mere men to hold ladders and to hand up the hammers and nails, were decorating Queen's Park, Trafalgar Square, and the Chamber of the House of Assembly, where was to be held the great Ball which was to be the culminating function in the rejoicings. In Trafalgar Square a wonderful triumphal arch, to be known thereafter as the Marble Arch, had sprung up almost in a night as if by magic, at the command of Mr. E. F. S. Bowen, the Superintendent of Public Works, and the statue of Nelson, which since the year 1813 has stood on a pedestal facing Broad Street, was given a bath of oil to remove what looked like the dust of a century. Everywhere there was excitement. Everywhere preparation.

The long-awaited day of the Prince's arrival dawned at last. Decorations, addresses and speeches had received their finishing touches, and nothing was wanting to ensure the success of the Royal visit except a certainty of the continuance of the perfect reaping weather which the island was enjoying. The *Renown* was supposed to reach Carlisle Bay at 5.30 p.m., and as the hands of the clock drew near the hour of five some doubts were expressed as to whether she would be "on time." We who were bathing off the Engineers' pier prayed that she might be, for on emerging from the water we found to our consternation the open dressing-shed at the end of that structure in the possession of a large party of ladies and children sightseers—and even in the tropics you can feel chilly in a bathing suit and a towel. We had, however, confidence in the Royal Navy, and this was not misplaced, for just after the hour the huge grey form of the *Renown* emerged from the scud of a passing shower, and headed for the anchorage. As she drew near one could see her great guns, the Admiral's flag flying on the foremast and the Prince of Wales's standard on the main. Following her was the *Calcutta*, which had proceeded overnight to a rendezvous in the Atlantic to escort her to port.

In Carlisle Bay the shipping was all dressed with bunting in "rainbow fashion," and as the *Renown* dropped anchor in the roadstead a salute of 21 guns thundered out, the church bells started ringing, and the crowds which filled every coign of vantage near the carenage gave voice to cheer upon cheer. The Prince had arrived!

In accordance with the prearranged plan, the Prince did not come ashore that night, but instead entertained a party of local notabilities at dinner and several hundreds of guests at a ball on board the *Renown*. Every launch, pinnace and barge of the two flagships was pressed into the service of transporting the visitors to the party, and the carenage can never have looked more like Venice than it did on that night, the illusion being heightened by gaily coloured Venetian mooring posts, which Lady Carter and her friends had set up in the water at the landing steps.

The ball was a brilliant affair. After the Prince had personally received all the guests—a foretaste of the handshaking which was to put his right

hand almost out of action at a later stage of the tour, there was dancing on the much beflagged quarter deck. The sailors and marines were all in whites—so, too, were the Press representatives, who with their short "Eton" jackets were more than once taken for elderly midshipmen. It is, indeed, curious that the hideous English dress clothes should still be *de rigueur* in the West Indies instead of the cooler white suits.

The following morning was ushered in by heavy showers. These failed, however, to damp the enthusiasm of the people. It was the People's Day, and from an early hour Barbados was *en fête*. Soon after nine o'clock the Chamber of the House of Assembly, now bereft of its "pen" in which the Members are wont to sit, was filled with a gathering met to witness the first formality of the day. A few minutes before ten a burst of cheering indicated that the Prince had set foot on the soil of Barbados, and shortly afterwards the Royal visitor, who had landed at the steps by the Chamberlain bridge, entered and proceeded to a dais at the end of the room, where he stood surrounded by his brilliant staff all, like himself, in white uniforms, with the Governor, the Speaker, the Bishop, whose Doctor's robes furnished a splash of colour, the Colonial Secretary, and the Members of the Legislative Council on his left. His Excellency then read an Address of Welcome on behalf of "The Government, the Legislature, and all sections of the Colony of Barbados." In this he referred to the appreciation which was felt at the King, of whose three visits to the island the people retained vivid memories, having deputed his eldest son to visit Barbados. He expressed pride in the Prince's career in the Great War, and his confidence that in no Dependency over which the Union Jack waved would His Royal Highness meet with a more ardent patriotism and devotion to the Crown than in Barbados. The speech was couched in such admirably chosen words that only the most meticulously minded could have found fault with His Excellency's statement that the ancient constitution and privileges had been granted to the Colony "more than three hundred years ago"—a slip which, curiously enough, passed unnoticed.*

The Prince's reply, which was delivered in such clear tones that it could be heard all over the Chamber, whose acoustic properties are proverbially atrocious, also referred to the fact that no foreign flag had ever flown over the island, which "has never wavered in its staunch allegiance to the British Crown." He said that he had learnt with the deepest interest of the equal freedom of opportunity secured to the inhabitants of whatever race, and expressed the hope that all classes would continue to make sound progress under the liberal principles of government which had long been the island's pride. He knew of the fine services rendered by the Barbados Contingent of the British West Indies Regiment during the war, and he added that it was now for the people of the Colony to show their commonsense and

*The Constitution of Barbados dates from the Royal Charter of Charles I. of June 2nd, 1627, and is not yet, therefore, three hundred years old.

steadiness in dealing with the problems of reconstruction which were absorbing attention throughout the British world.

When the cheers which greeted the Prince's reply had subsided, a series of presentations were made, and the proceedings were brought to a close. The next item on the programme was a drive through Bridgetown and the country districts, which had been admirably planned by Mr. H. Graham Yearwood and Captain Bowring, and was conducted without a hitch.

The decorations along the route were varied, and in some cases original. At Dalkith, for example, a large canvas bell was suspended over the road. It was filled with petals of hibiscus, Barbados pride, allamandas, and other flowers, which were to fall in a shower on the Prince as he passed underneath. Unfortunately, Mrs. Bowring, who was to manipulate the string which was to release the flowers, pulled it prematurely, and the exquisite blooms fell in a solid mass about twenty feet in front of the Prince's car, to his manifest astonishment. However, another young lady made unerring aim with a bunch of violets, a flower almost as rare in Barbados as orchids are in England, and so the Prince got his flowers after all.

(To be continued.)

WEST INDIAN MAIL NOTES.

The outlook in the West Indies as a whole was far from bright when the mail advices, extracts from which are given below, were posted, but the price of the principal staple has risen by 30/- a cwt. since Christmas, and this should awaken a more hopeful spirit in planters. In British Honduras, disappointment over the abandonment of Mr. Wood's visit is still great, and it is interesting to note that the suggestion that an official from the Colonial Office should visit that Colony has commended itself to the community. Crop prospects, on the whole, were decidedly more favourable than they were last year, and, generally, better yields than those which were experienced twelve months ago may be anticipated.

Antigua's New Governor.

Writing on December 21st, 1921, Mr. A. P. Cowley, M.B.E., stated that His Excellency Sir Eustace Piennes had already won golden opinions by his courteous affability to all classes, and the spirit with which he was entering into local affairs. He was enthusiastic over the cricket club, and was present at an open-air concert given by a local band formed purely for the love of music. The Agricultural and Commercial Society were busy getting ready for Mr. Wood's visit. A large committee had been formed to bring before him various matters that the members require to discuss. The planters have formed a separate body to bring forward their representations. So Mr. Wood will have a busy time. Sir George Foster passed through on *Caraguaet*; the committee of the Society went off to interview him. It was hoped to entertain him on his return.

The Bahamas Season Starts.

The winter tourist season, which opened with the opening of the Hotel Royal Victoria on December 27th, is expected to be a good one. The new contract service from New York by the Munson Line, was inaugurated by s.s. *Munamar*, which arrived at Nassau on January 3rd, completing the journey in about 60 hours. The Nassau-Miami Air Service, for which a subsidy was voted this year by the Legislature, will not be in operation, says the *Nassau Guardian*, this season.

Barbados Estates Sales.

1920 was, says the *Agricultural Reporter*, a record one for the sale of estates, and also the prices paid for them. In 1921, too, some were sold at a high figure, but there has been a rapid drop in the value of estates on account of the price of sugar. Estates sold in 1921 were:—

Estate.	Acreage.	£
Friendship	332	20,710
Golden Grove	206	16,000
Sandford	—	4,000
Gregg Farm	—	8,500
Clermont	—	7,000
Fairfield	92	8,882
Moncrieffe	203	16,265
Seaview	12½	591
Canewood	115	9,000

Some estates have been surrendered to their original owners on account of the inability of some purchasers to complete their purchase. 1921 will long be remembered as one of great difficulties to every planter. Many fortunes have been lost on estates, and many estates are in a precarious condition. The rainfall for December was likely to prove one of the lowest in the history of the Island. The red soil districts down to 23rd December had received only 2.34 inches and the black soil 1.78. The Chancery Court was again active after being practically dormant, so far as estates are concerned, for the past few years. Estates at present in Chancery are as follows:—Balls, Pilgrim Place, Upton, Staple Grove, Kent, Rugby, Rockless, and Pine.

An undated number of the *Advocate* records a fortnight of very dry weather, and says that the outlook for next crop is very dark. Mr. Malby Trimmingham acted as sheriff at the city election for the House of Assembly, when on a nomination of Mr. D. G. Leacock, Mr. H. B. G. Austin and Mr. Charles W. Haynes, the old members were returned. Mr. E. T. Granum, C.M.G., in a letter to the Press complains that owing to the failure of the Government to levy in sufficient proportion to the wealth being produced in the prosperous years, there is to-day a deficit of about £100,000. His conclusion is that Representative Government, as tried in Barbados, is a failure. The obituary list includes the names of Dr. C. W. St. John, Mr. W. Payne, and Sergeant Skeete of the Police Force, the last named having been found dead on Pelican Island on Christmas Day.

Relief for British Guiana's Sugar.

Mr. J. V. Fitzpatrick, writing on December 24th, 1921, states that heavy showers have been experienced daily since the 14th, and have rendered the position on the estates very difficult indeed. Several estates are unable to complete their estimates for their December grinding and are compelled to turn over large acreages of cane through the bad condition of the dams, which are in too sodden a condition to permit passage for mules drawing punts without consider-

able damage. Amongst the items of particular interest dealt with by the Combined Court recently, have been the rejection of the Government Income Tax proposals and increased duties on wines, spirits, tobacco, matches, etc., also an increase of licences for motor vehicles. The suspension of the Acreage Tax is of particular interest to planting circles, while the property owners in Georgetown have been somewhat perturbed by the Court having approved of the Government's scheme for the installation of a sewage system, filtered water supply and a permanent road improvement scheme, costing altogether \$2,492,800—which will be paid for in 6 per cent. Government Bonds, the municipality guaranteeing to raise its rates in order to meet the Sinking Fund and interest on this expenditure. It is believed that this means an increased municipal taxation of 7½ per cent. to 1¼ per cent. on the property valuation of the town. The Combined Court resolved that as a measure of relief to the sugar industry, and in view of the existing economic depression, the fixing of the period within which local payment should be demanded from sugar estates' proprietors and companies of the amounts of Profits Tax due and not yet collected, in respect to profits earned during 1920 should be left in the discretion of the Governor. The Court also authorised the remission of the Colonisation Tax for the period from August 1st, 1921 to December 31st, 1921, and for the year 1922, and approved of all sums already collected in respect of this tax from August 1st, 1921 inclusive, being refunded. A similar motion was also adopted for the remission of Acreage Tax.

Major Cochran-Patrick has made several successful flights over Georgetown and the surrounding coastal districts, taking photographs, and has now flown to the Rupunni to carry out an aerial survey of that district. The seaplane and its flights have naturally been the object of a great deal of interest and excitement on the part of the natives as it is many years now since an air-craft of any kind was seen in the Colony.

British Honduras and Sir Eyre Mutson.

Hon. A. R. Usher, writing on January 5th, says that as Mr. Wood has definitely decided not to visit British Honduras, and it has also been decided not to send a deputation to Jamaica, His Excellency the Governor has suggested that a permanent official from the Colonial Office might visit British Honduras, and we will no doubt hear the result shortly. News having come to hand on the 2nd that His Excellency the Governor has been made a K.C.M.G., several entertainments have been arranged to celebrate the occasion, including a dinner to be given by both the Executive and Legislative Councils. The usual hiring of labourers has proceeded quietly during the Christmas season. Wages offered, however, have been lower than during the last few years, but employment has been found for a large number of men, which has relieved the situation, and mahogany will probably be produced to the same extent as the previous year, but a good deal is expected to go to the United States. A contract is being entered into with the Jefferson Construction Company for the dredging of the bar of the Belize River, which will be a great convenience to the shipping interests when it is accomplished. Chicle from Mexican territory, which produces a good revenue from the Export Duty of 3 cents per pound, is now being forwarded from Payo Obispo to Cozumel (at a cost of less than half a cent per pound) where it is taken by the steamers of the United Fruit Co., and if this continues it will mean a further drop in the

revenue of the Colony during the next financial year. The Mexican authorities, it is understood, resent the action of this Government in charging such a heavy export duty and also the prohibition of the export of sugar and corn to Payo Obispo recently, and have reduced their duties as an inducement to shippers to divert chicle from this port and are also offering inducements for shipping mahogany cut in Mexico from N'calac without touching British territory.

Jamaica and the Sugar Duties.

With a view to encouraging the tourist trade, concessions have been granted which will permit transient visitors to come to Jamaica without passports, and on their part, the American Government have withdrawn the regulations requiring persons who have landed in Jamaica to be vaccinated before returning to the United States. The Canadian Pacific Railway intend to enter the West Indian trade during the coming season, and besides the *Empress of Britain*, which will make several trips with tourists, it is announced that the s.s. *Sicilian* will make regular calls at Jamaica, touching at Boston and Havana en route. Mr. H. A. Da Costa has been appointed a J.P. It is thought that the United Fruit Co. may build a new pier at the western end of Kingston in the near future, the company having brought down recently an expert wharf engineer to go into the question. Mr. E. F. H. Cox, a barrister and ex-civil servant, has started an action in the local courts against the Governor, whom he is suing for alleged breach of duty in connection with plaintiff's pension. The *Gleaner* states that the Central Government will bear a portion of the cost of the Alastrim outbreak, incurred by the Parochial Boards, by whom, however, in future, the expenses in connection with epidemics must be borne exclusively. The position of the local sugar industry is giving rise to much anxiety and a movement is on foot to endeavour to secure for British produced sugar an increased preference in the United Kingdom and Canada. The £400,000 appropriated for loans to planters last year has all been distributed and unless prices show some improvement a crisis is feared.

Mr. Wood's final days in Jamaica were no less strenuous than those which had gone before. After his island tour, according to the *Jamaica Times*, he conferred with the Government's Financial officers, then at Spanish Town he received representations from a body of leading men. He did not find it practicable to be present at the public meeting held the same evening in the Ward Theatre by the Jamaica Representative Government Association, but he was busy next day receiving the joint delegation from eleven Parochial Boards and a memorandum presented by a deputation headed by Brigadier-General Moulton-Barrett. Then came a deputation from Citizens' Associations. Mr. Wiseman received a deputation from the Jamaica Civil Service Association, Major Ormsby-Gore one from the Jamaica Union of Teachers, and Mr. Wood one from the Kingston Ministers' Fraternal. It was not until the afternoon of December 24th that the work of receiving deputations ended. The party were then guests of the Governor and Lady Probyn at King's House. On Sunday they attended services at Halfway Tree and the Kingston Parish Church. They sailed on December 26th for St. Kitts by H.M.S. *Valerian*. Our contemporary expects the following results from Mr. Wood's visit to Jamaica: A financial expert being sent out to overhaul the Colony's finances; expert advice from the Colonial Office as to the practicability of electrifying the railways; some extension of the Constitution, and something in the nature of a State Loan

Bank. Bro. Rev. A. N. Thomson has been installed as Worshipful Master of the new St. Thomas Masonic Lodge, No. 4,338, which has been opened at Morant Bay. Hon. R. Nosworthy has been appointed Island Treasurer and Manager of the Government Savings Bank in succession to the late Hon. C. C. Anderson.

St. Kitts' Crop Prospects.

Mr. E. J. Shelford, writing on December 21st, 1921, states that crop prospects generally are fair for next season, with the exception of those for a portion of the Basseterre Valley. The estates in the St. Paul's and St. Ann's parishes, particularly, have a fair show of canes. The bonus of 5s. 7d. per ton canes declared by the Basseterre Sugar Factory Co. is about as much as was expected in view of the short crop and heavy expenses. Notwithstanding the general depression, the stores appeared to be busy doing a brisk Christmas trade.

Baby Saving in St. Lucia.

Mr. Archibald J. Brooks writes on 12th December, 1921.—A new Medical Officer has been appointed for Dennery, but report says that after accepting the appointment in England, he was last seen on a steamer sailing for China, perhaps in search of St. Lucia! On December 17th a very successful fête was held in Castries Gardens in aid of the Baby Welfare League, of which Mrs. William Peter is the President, and Mrs. William Degazon the indefatigable Secretary. His Honour the Acting Administrator, Hon. E. Laborde, opened the fête and recommended that those who had not babies should adopt one! Pointing out the appalling fact that 34 out of every 100 children born in the Island died before attaining the age of one year, His Honour appealed for support for the Castries crèche, which was being converted into a baby-saving institution. The death is recorded of Mr. W. Augustus Harris, the popular consulting engineer of the Vieux Fort and Roseau factories. Mr. T. G. Westall, who recently returned from his mission to England on behalf of the Representative Government Association, addressing a meeting at Soufriere, said (according to a correspondent in the *Voice*) that St. Lucia's right to representation was comparatively equal to that of both Canada and England. Politically, socially and morally it was a far distance ahead of those two places.

Tobagonians and Mr. Wood.

Mr. Robert S. Reid, writing on December 31st, states that the Planters' Association is requesting that Mr. Wood may receive a Tobago delegation to tell of the Island's needs in the matter of a better coastal steamer service and to urge that Tobago may be included in the proposed Canadian-West Indian ports of call and that facilities be provided by way of barges or jetties for ocean steamers. A better mail service, and improved medical service are also asked for. The Christmas holidays have been exceptionally wet, with some very heavy downpours; the rivers are in flood, and the roads partially blocked by landslips in some places, more especially on the north side, which has not recovered from the storms of September and October. No doubt crops will benefit later on and the peasants are planting out potatoes and even corn this month, which would not be dreamt of in the ordinary years. The hard times may be stimulating this activity as they begin to recognise that even cacao is not a safe basket in which to place all their eggs.

Holidays are the order of the day and are being prolonged to keep down the pay roll, but cacao is ripening and work will be resumed steadily a week hence on estates all over the Island.

Mr. Mannyshow in Trinidad.

In the Legislative Council on December 24th, a vote was passed authorising the payment of £250 each to the Auditor-General and the Receiver-General in respect of their services in connection with the assessment and collection of Income-Tax for the year. Lord Eustace Percy, who has arrived in Trinidad, is visiting the Colony in the interests of the United British Oilfields, of which he is a director. Presenting the estimates of the Port of Spain City Council for 1922, the Mayor (Dr. A. H. McShine) said that the surplus balance had been reduced to the minimum workable amount, and they must perforce postpone urgent public work. If they decided to borrow £15,000, they were merely getting back to where they were five years ago. He pointed out that in the course of ten years they had wiped out two loans, one of £15,000, the other of £20,000. Mr. T. Albert Mannyshow, Editor of the *Grenada West Indian*, has made a successful political tour of the Island, addressing meetings at Port of Spain, San Fernando, Princes Town, and Couva, in the interests of Representative Government. The deaths are recorded of Miss Nellie Cutler, daughter of Hon. T. R. Cutler, Acting Collector of Customs; of Mr. G. C. de Verteuil; of Mr. A. F. Ganteaume; and of Mr. C. J. Oakley, a well-known Canadian commercial traveller.

SOME COMPANY NOTES.

The West Indian Produce Association, Ltd.

The directors, in their report for 1921, state that they regard the result of the year's working as not unsatisfactory having regard to the great depression which prevailed during the year. They recommended the payment of a dividend at the rate of 5 per cent. per annum, and this was approved at the annual general meeting on January 27th.

British Controlled Oilfields, Ltd.

The second annual report of the directors, which covers the year ended September 30th, 1921, states that owing to the highly satisfactory indications made evident by the drilling operations and developments on the company's Venezuelan fields, at this early stage the directors considered it advisable to concentrate intensive operations on those areas, temporarily curtailing developments on other concessions. Instructions had been given to discontinue operations in Ecuador, and temporarily suspend operations on the company's Santa Lucia and San Jose estates in Trinidad. The report also deals with the contract entered into between the company and the Government of Trinidad for the draining of the Oroonche Lagoon, details of which were given in our issue of December 22nd, 1921. Since information was given shareholders in connection with the acquisition of the Oroonche Lagoon area in the last annual and interim reports, considerable further geological information had been obtained by the company through developments being conducted by other companies in proximity which had gone to strengthen the opinions of the geologists and engineers that this area gave every promise of becoming an exceedingly valuable oil position. It was intended that drilling operations should commence early in the year.

The annual meeting will be held at the company's head office at Montreal on February 9th.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

30th January, 1922.

SIR,—In your issue of January 5th "An Occasional Correspondent," commenting on my West Indian Currency brochure, makes an assertion which I feel called upon to deal with, although, following precedent in this subject, he remains anonymous. He states that Jamaica is the only West Indian island which uses sterling accounts, and that I am incorrect in ascribing them to Antigua and St. Lucia.

If, notwithstanding his pronouncement, he will make enquiries, he will find that sterling accounts are kept by both the Governments and the communities of those two islands. Only the banks account in dollars, and in at least one of the islands cheques are made out in both currencies to oblige them. He may be forgiven, however, in view of some of his comments on the monetary aspect of the proposals, in regard to which he is clearly on more familiar ground.

I am, dear Sir,
Yours very truly,
IVAN DAVSON.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes Ltd.

Sailings to Jamaica from Avonmouth, in R.M.S. *Cambridge*, January, 16th:—

Mr. & Miss Abadi	Mr. I. Hall	Miss D. Morales
Mrs. & Miss Alexander	Mr. R. G. Hammond	Miss C. Pengelly
Mr. & Mrs. J. Allan	Mr. C. Hart	Mr. E. M. Pangle
Miss E. G. M. Allan	Mr. J. D. Hooper	Mr. & Mrs. J. D. Remie
Major G. E. Bedford	Dr. & Mrs. L. P. Jimenez	Mr. C. R. Riley
Mr. A. A. Borge	Mr. A. de Jimenez	Mr. J. A. Sene
Mr. W. H. Burt	Miss I. Jimenez	Rev. & Mrs. R. W. Thornton & son
Mr. & Mrs. S. W. Chiam	Mr. T. Lightbody	Hon. & Mrs. W. A. S. Vickers
Mr. W. N. Colam	Major & Miss Macdonald	Miss E. A. Vickets
Mr. A. B. Craven	Mr. T. Marshall	Mr. & Mrs. A. G. Vailch
Mr. E. Davies	Mr. & Mrs. W. A. R. M. McKee	Mr. & Mrs. C. E. White & fam.
Mr. F. Delfin	Mr. I. Mizrahi	
Mr. G. V. Elder		
Mr. F. Gonzalez		

Sailings to Jamaica from Avonmouth, in *s.s. Motuana*, January 24th:—

Mr. N. S. Corder	Mr. S. T. Gaywood	Miss H. D. Murphy
Mr. S. Driver	Dr. G. Jameson-Carr	Mr. & Mrs. W. D. Thompson
Mr. C. Elmg	Mrs. & Miss Isaacs	Mrs. T. F. Wadley
Miss F. M. Elmy	Mr. J. Moreno	and infant
Mr. W. Frost	Mr. P. R. Morris	

Sailings to Jamaica, from Avonmouth in *s.s. Bayana*, January 30th:—

Mrs. H. Adams	Mr. & Mrs. J. A. Duglish	Mr. W. Mullinson
Miss E. Asher	Mr. & Mrs. R. G. Finney	Mr. & Mrs. H. B. Pynn
Mr. W. H. Barnett	Mr. & Mrs. A. H. Gibson	Rev. & Mrs. W. H. Seddon
Mr. J. M. Bennett	Mr. V. Hayward	Miss R. Seddon
Mr. & Mrs. F. Challinor	Mr. T. G. Jenkins	Mr. H. L. Simpson
Miss K. Chathnor		Mr. & Mrs. J. B. Swan
Mr. D. C. Clegg		

Home arrivals from Jamaica in *s.s. Bayana*, Avonmouth, January 22nd:—

Mr. A. T. Bryant	Mr. & Mrs. P. Hamilton	Miss P. J. O. Hunt
Mr. A. Craighead	Mrs. M. Hamilton	The Misses Ross (2)
Mr. & Mrs. Scott Fry		Miss M. E. Thompson

Royal Netherlands West Indian Mail.

Home arrivals from West Indies, in *s.s. Stuyvesant*, Plymouth, January 17th:—

Mr. J. W. Ashton	Mr. & Mrs. R. N. Galloway	Mr. J. H. Nockin
Mr. A. Cahyn	Miss A. Galloway	Lord Justice Percy
		Hon. & Mrs. A. Warner

Sailings to West Indies, from Dover, in *s.s. Venezuela*, January 28th:—

Dr. E. P. Andreae	Mr. Harris	Miss McIntosh
Miss B. B. Baldrey	Mr. & Mrs. D. E. Hawkins	Mr. A. Moore
Mr. J. B. Barrington	Mr. W. A. Hayward	Mr. S. J. Oliver
Mr. A. Bentham	Miss Hayward	Mr. F. T. Ovenshaw
Mr. H. R. Berry	Mrs. & the Misses. James	Mr. T. Paul
The Rev. & Mrs. J. Branch-Evans & fam.	Mr. W. Johnnah	Mr. G. F. Planchat
Mr. & Mrs. Campbell	Mr. Johnson	Mr. St. G. M. Plummer
Mr. A. Chery	Mr. G. E. Kirkbright	Captain & Mrs. R. Radcliffe-Hall
Mr. A. Clarke	Mr. T. E. Lawson	Mr. T. G. Rose
Mr. & Mrs. J. H. Crosswell	Mr. B. Leslie	Mr. P. H. Russell
Mr. H. Dorman	Mr. W. Luck	Mr. W. Spencer
Mr. & Mrs. J. Egerton	Mr. J. MacLaren	Mr. Thompson
Dr. & Mrs. E. Graham	Mr. J. S. Marston	Mr. & Mrs. J. R. Neale & infant
Pilgrim	Mr. & Mrs. McIntosh	Mr. Wilton

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
West Indies	London	<i>Spectalist</i>	Feb. 2
Jamaica	Liverpool	<i>Speaker</i>	2
Jamaica	Liverpool	<i>Barranca</i>	6
Jamaica	Bristol	<i>Changuinoh</i>	7
B'dos, T'dad & B. H'das	Liverpool	<i>Actur</i>	11
B'dos & T'dad	Dover	<i>Stuyvesant</i>	11
Jamaica	Bristol	<i>Coronado</i>	13
Jamaica	Liverpool	<i>Napierian</i>	16

T'dad, Para & St. Lucia	St. Nazaire	<i>Puerto Rico</i>	Feb. 22
B'inas, Para & B. H'das	Halifax	<i>Canadian Forester</i>	24
West Indies	New York	<i>Mayana</i>	28
West Indies	Halifax	<i>Chateaur</i>	Mar. 3
Cruise	New York	<i>Fort St. George</i>	4
Bahamas	New York	<i>Siboney</i>	11
Cruise	New York	<i>Megantic</i>	18

WEST INDIAN SECURITIES.

LATEST QUOTATIONS.

Per Cent	Security	Jan. 30.
100	Antigua	83.87
100	Bahamas	67.69
100	British Guiana	79.81
100	British Guiana	89.80
100	Grenada	71.75
100	Jamaica	82.84
100	Jamaica	87.79
100	Jamaica	87.59
100	St. Lucia	70.72
100	Trinidad	79.75
100	Trinidad	80.82
10	The Colonial Bank	8.54
8	Royal Mail Steam Packet Co. Ordinary	82.87
6	Angostura Bitters Part. Preference	—
6	New Trinidad Lake Asphalt Co. 6% Debentures	103.108
6	Consolidated Rubber and Balata Estates Pref.	1.7
6	St. Madeleine Sugar	2.8
6	Apex (Trinidad) Oilfields, Ltd.	30.9
6	Petroleum Options, Ltd. 10%	25.
10	Trinidad Central Oilfields	1.5
12	Trinidad Dominion Oil, Ltd. 10%	20.8
12	Trinidad Leaseholds, Ltd. 10%	12.6
12	United British Oilfields of Trinidad, Ltd.	8.6
12	General Petroleum of Trinidad	—
4	Demerara Railway Company Ordinary Stock	—
4	Demerara Railway Company 7% Perp. Pref.	—
4	Demerara Railway Company 4% Ex. Pref.	—
4	Demerara Railway Company 4% Debenture	—
—	W. I. and Panama Tel. Co., Ltd. Ordinary	1.1
—	W. I. and Panama Tel. Co., Ltd. 6% Cum. Int. Pref.	11.1
—	W. I. and Panama Tel. Co., Ltd., 2nd	11.1
—	W. I. and Panama Tel. Co., Ltd. 5% Debentures	78.83

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.
Telegrams—
"Cursib, London."



15, SERTING LANE,
LONDON, E.C.3.
January 31st, 1922.

BANK RATE. Five per cent. as from Nov. 3rd, 1921.

EXCHANGE. Value of the £ Sterling.

	Jan. 17th £ s. d.	Jan. 31st £ s. d.		Jan. 17th £ s. d.	Jan. 31st £ s. d.
In U.S.A. ...	12 5	17 8	In Spain ...	1 2 1	1 2 8
.. France ...	2 0 8	2 0 10	.. Germany ...	38 1 9	42 4 0
.. Belgium ...	2 2 8	2 2 10	.. Austria ...	312 1 5	362 8 0
.. Italy ...	3 15 8	3 14 11	.. Holland ...	18 11	18 2

The intrinsic value of the gold sovereign is £1 2s. 10d.

SUGAR. The improvement recorded in the last Summary in the New York market continued until the 25th inst., when the figure of 3.86c. for duty-paid landed Cubans was reached. The market subsequently weakened, the possible increase in the amount of protection afforded in the United States to territorial and domestic sugars with the view of further developing the domestic beet industry, and the probability of the Cuban crop reaching 3,500,000 tons, caused some depression in outside sugar circles, and the value of Cubans fell to 3.84c. A slight recovery, however, occurred yesterday, sales of Cubans being effected at 3.75c., equivalent to 2.12c. c.i.f. The futures market yesterday stood at: March, 2.27c.; May, 2.47c.; July, 2.66c.

Prices in the home market rose slightly in the early part of the fortnight, the value of best quality West Indian crystallised rising to 12/-, at which figure it stood yesterday, with home granulated quoted at 16/9, and American granulated 18/6 c.i.f. The spot value of white Brazilian was 15/8, and of white Natal 15/-.

Terminal market values:—

	March,	May	Aug.
96° ...	15/-	13 1/4	13/-
White ...	18 1/4	18 1/4	18 2/4

The following figures showing the consumption of sugar in the United States in the years 1921, 1920 and 1919 in long tons are taken from Messrs. Willitt and Gray's *Statistical Sugar Trade Journal*:—

	1921	1920	1919
Total consumption of sugar in United States (Imports)	4,167,328	4,884,672	4,067,671
Compared with preceding year— increase	22,686	17,001	572,065
Consumption consisted of:			
Louisiana and Texas (Cane)	272,773	311,625	454,031
Hawaii (Cane)	916,977	454,446	872,253
Hawaii (Cane)	482,322	300,552	314,924
Virgin Islands (St. Croix) (Cane)	3,170	10,490	8,285
Porto Rico (Cane)	373,762	334,936	286,880
Philippine Islands (Cane)	131,168	114,048	72,511
Various sugars from Foreign Molasses, United States Maple, etc.	2,274	17,095	24,034
Total Domestic	2,214,446	1,933,192	1,932,882
Cuba (Cane) on which Tariff concession is allowed	1,866,181	2,127,461	2,077,051
Total preferential and non-dutiable sugars	4,080,627	4,060,653	4,009,933
Foreign consumed on which full duty assessed	25,739	584,019	57,738
Of which Foreign Raw Cane	20,311	510,980	33,919
.. Raw Beet	—	—	—
.. Refined and partially refined Cane	6,428	14,316	23,819
Of which Foreign Refined Beet	—	28,693	—
American S. R. Co.'s production consumed in United States	721,867	826,650	1,053,806
Other United States refiners' production consumed in United States	2,212,075	2,149,516	1,921,390
Beet Sugar factories' production consumed in United States	946,977	454,446	872,253
Hawaiian Plantation refined production consumed in United States	7,074	10,089	10,676
Foreign refiners' production consumed in United States	6,418	43,039	23,819
Total amount refined sugar	3,895,628	3,474,270	3,899,944

The West Indian sugar statistics in London on January 21st were:—

	1921	1921	1920
Imports ...	175	168	1513 Tons.
Deliveries ...	1,766	3,030	2,326
Stock ...	8,101	6,342	7,223

RUM. A few small sales have been made during the fortnight, but values remain nominal.

The stocks in London on January 21st were:—

	1922	1921	1920
Jamaica ...	11,021	9,020	6,856 Puns.
Demerara ...	17,608	14,495	13,740
Total of all kinds	38,378	33,688	27,483

CACAO generally is quiet, with no export demand. Trinidad is firmer with rather more enquiry; the range of values is unchanged at 52/- to 61/-. No Grenada is on offer, but about 6,000 bags are due to arrive. Nothing is doing in Jamaica, with values unchanged at 47/- to 50/-.

The stocks in London on January 21st were:—

	1922	1921	1920
Trinidad ...	11,158	29,172	22,838 Bags.
Grenada ...	13,386	19,598	10,920
Total of all kinds	103,182	200,638	102,746

ARROWROOT is a slow market, with prices unchanged at 3d. to 6d.

BALATA. West Indian sheet continues slow of sale. Spot parcels are quoted nominally at 3/3 to 3/5, and forward 3/8 to 3/9, c.i.f.

BAY OIL is easier, with the market well supplied, and valued nominally at 10/- to 11/- per lb.

COFFEE generally is difficult of sale, and in order to effect business lower prices have been accepted. Costa Ricans have declined sharply from 10/- to 15/-. Good to fine ordinary Jamaican is valued nominally at 60/- to 65/-, with only small sales passing. Small sales, mostly second-hand, have been made in fine Blue Mountain up to 200/-. Export is flat.

COPRA is steady to firm. West Indian f.m.s. is valued at 22s c.i.f. Holland or Hamburg; and 22s 10s., c.i.f. London.

COTTON continues quiet, with a general heavy fall in prices. In West Indian Sea Island, small sales have been made at easier rates, and quotations, with the exception of extra fine, have been reduced a further hundred points at: medium 23d., fine 31d., and extra fine 40l.

HONEY is unchanged, buyers remaining uninterested. A fair selection of West Indian will be offered at auctions to be held on February 2nd.

LIME PRODUCTS. Lime Oil. A very small business has been done in Handpressed at 15/- per lb. Sales of Distilled have been made at 1/10 to 2/3, according to quality. Lime Juice. There is no demand at present in Concentrated, and Raw remains neglected.

LOGWOOD is still unchanged and neglected.

ORANGE OIL. There are spot sellers of Sweet at 10/- per lb., but no buyers. Bitter is neglected.

RUBBER. There is no improvement to report, and with no support from America the market is very depressed. Prices have declined to 9½d. spot crepe, 9½d. sheet. Stock in London, 67,208 tons.

SPICES. The market for Pimento is steady, and business has been done to Hamburg at 20/- c.i.f. for February-March shipment. Small spot sales have been made at 2½d. per lb. Ginger is firm, with a fair inquiry for Jamaica, early shipment.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—

Barbados (Messrs. Wilkinson & Gaviller), January 28th: "Frequent showers have fallen since last cable."

British Guiana.—Berma (Messrs. Henry K. Davson & Co.), January 20th: "Heavy rains continue." **Demerara (Messrs. Curtis, Campbell & Co.), January 25th:** "Weather has been fine since last message, and is generally favourable for cultivation and grinding."

The West India Committee Circular

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

The West India Committee Rooms.

Telephone:
CENTRAL 6642.



15, SERTHING LANE,
LONDON, E.C. 3.

February 14th, 1922.

"THE EMPIRE AT WAR."

IN the early part of 1916 the Council of the ROYAL COLONIAL INSTITUTE decided to take in hand a work to be entitled "The Empire at War," and the editorship was entrusted to SIR CHARLES LUCAS, then whom it would be difficult to name anyone more eminently fitted for the task. SIR CHARLES LUCAS, it will be remembered, was for some fourteen years Assistant Under-Secretary of State, head of Dominions Department of the Colonial Office, and his historical knowledge of Dominions and Colonies reaches that point when "old experience doth attain to something like prophetic strain." His knowledge of his subject and his scholarly abilities ensure that any historical work dealing with the Empire written by him will be well done. The design of the Institute's volumes was, and is, to trace the growth of Imperial co-operation in war time before the late war, to give, side by side, a complete record of the effort made in the late war by every unit of the Overseas Empire, from the greatest to the smallest, and also to tell in which particular ways, and to what extent, the fortunes and the development of each

"The Empire at War." Edited for the Royal Colonial Institute by Sir Charles Lucas, K.C.B., K.C.M.G., Vol. I. By the Editor. Humphrey Milford, Oxford University Press.

part were affected by the war. The first of the five volumes which are to compose the work is now published, and is written solely by SIR CHARLES LUCAS. The theme of the book is the way in which, and the extent to which, the Overseas peoples of the British Empire have served the cause of the Empire in time of war, pre-eminently in the last and greatest of wars. Its object is to trace growing co-operation within the Empire at times when the Empire has been in peril from without; to tell how common effort and common sacrifice cemented unity; how distance, diversities of race, colour, land and creed yielded to loyalty to one Crown and devotion to equal laws and world-wide liberty. Indeed, the volume may be described as the story of the Empire, with special reference to Imperial defence. In the hands of SIR CHARLES LUCAS the story, which is of itself of the deepest interest, is fascinating.

Naturally, in reading a work of this nature, we look for references to the West Indies, and we are delighted to find that the services rendered by those Colonies to the cause of the Empire are worthily recorded. "Perhaps," writes SIR CHARLES LUCAS, "the earliest instance of Imperial co-operation was in 1655, when CROMWELL sent out VENABLES and PENN from England to take Hispaniola from the Spaniards. 'On their arrival at Barbados,' Long tells us in his *History of Jamaica*, 'they beat up for volunteers, and having raised there four thousand foot, and two small troops of sixty horse, sailed from thence the 31st of March, 1655, for St. Kitts, where they found one thousand recruits collected partly from thence and from Nevis and the other adjacent islands.'" In its main purpose a miserable failure, the expedition, nevertheless, achieved the reduction of Jamaica, and thus the Colonies had shared in the first territorial addition which was made to the Empire by force of arms.

ADAM SMITH, in his *Wealth of Nations*, published in 1776, said that Great Britain was, perhaps, since the world began, the only State which, as it extended its Empire, has only increased its expense without once augmenting its resources. The Mother Country had given little enough, and the Colonies, young and immature, could not be expected to do more than provide for their own land defence, which they did, or some of them did, in a furtive and ineffective manner. Still, on occasions, American Colonists served beyond their own shores, though still in American waters, and similar service was given towards the end of the Seven Years' War, after the fighting on the mainland of North America had come to an end. Some companies of Rangers were among the troops which, under GENERAL MONCKTON, took Martinique

in February, 1762. In the Martinique expedition, a volunteer regiment from Barbados, and some men from Antigua, also participated; for, as SIR CHARLES LUCAS says, "in the eighteenth century the West Indies were alive with land and sea fighting, the British West Indies were instinct with patriotism and enterprise, and among them none was more patriotic and enterprising than the strong little community of Barbados." Throughout the eighteenth century, the West Indies were the scene of many fights, and many incidents connected with the fortunes or misfortunes of the Empire. In the middle of the century they were at the zenith of their wealth and importance; and when the Seven Years' War had run its course, before the Peace of Paris was signed in 1763, it was questioned in England whether of the captured French possessions the West Indian island of Guadeloupe was not better worth keeping than Canada. But these Colonies had become more and more purely plantation Colonies, whose communities were white oligarchies in the midst of vastly predominating numbers of negro slaves. To Imperial purposes they could, and did, give money contributions in time of war, but as regards man power, even for their own defence, they relied for the most part on soldiers and sailors from home. There was, however, much of patriotic feeling for the Empire. In 1804 Barbados merchants bought a vessel taken from the enemy, gave her the name of the *Barbados* frigate, and presented her to the Royal Navy to be used in the Island waters. SIR CHARLES LUCAS, in speaking of Barbados, says that the first statue erected to NELSON'S memory stands in Trafalgar Square at Bridgetown. But this statue was erected in 1818, whereas outside the City Hall, Montreal, a similar memorial was erected in 1808.

The Author devotes a chapter to the "Beginnings of Colonial Self-Defence"—one of the most interesting in the book. When we remember what the overseas Empire did during the war in the way of supplying troops, it is curious to read that a little more than sixty years ago the overseas Provinces of the Empire, with the exception of India, so far from being prepared to fight the battles of Empire beyond their own shores, were not prepared in any effective sense to defend those shores. The West Indian Colonies at one time had their Militia laws, but the introduction of Regular troops ultimately led the Colonists to depend on them for defence instead of on themselves. Regular troops were by degrees withdrawn, and with the dismantling of the fortifications of Castries, in St. Lucia, and the withdrawal of Regular garrisons from that island and Barbados, Imperial forces were, from 1805-6 onwards, nowhere to be found in the West Indies, except in Jamaica, where was stationed a battalion of the West India Regiment and small detachments of the Royal Garrison Artillery and Royal Engineers. Nearly all the West Indian Islands had by this time organised local defence forces of one kind or another, and when the war broke out the West India Colonies were able to supply their quota of men, and the British West Indies Regiment did notably good service.

In the last chapter, "The Empire at War," SIR CHARLES LUCAS says:—"Taken as a whole, the uprising of the British Empire, when war was declared on Germany, cannot be matched in history. . . . It was little short of a new birth of the Empire." It is a wonderful story, and its true significance is powerfully impressed on one's mind when it is told so vividly.

PRINCESS MARY.

The names of those Members who have so far contributed towards The West India Committee's gift to Princess Mary is given below. A further list will be published in a subsequent CIRCULAR. Meanwhile it should be pointed out that there has been no time as yet for replies to be received from the Colonies to the Executive Committee's invitation to contribute.

Mrs. E. Alleyne, Mr. F. W. Ashpittel, Mr. Algernon Aspinall, C.M.G., Dr. R. Wellesley Bailey, Mrs. E. M. Beckett, Mr. Robert Craig, Mr. F. J. Constable Curtis, Sir Edward Davson, Lt.-Colonel Ivan Davson, O.B.E., Mr. E. A. de Pass, Mr. Fred Driver, the Direct West India Cable Co., Ltd., Mr. H. Crum Ewing, Mr. E. N. Fellowes, Mr. G. Macgregor Frame, Mr. H. J. J. Freeman, Lt.-Colonel F. Galloway, Mr. Mewburn Garnett, Mr. and Mrs. D. Gibson, Mr. W. Gillespie, Mr. Thomas Greenwood, Rear-Admiral Sir W. R. Hall, K.C.M.G., C.B., M.P., Mrs. F. Hayes, Mrs. E. Haynes, Mr. H. G. Hill, Mr. G. Hudson Lyall, M.B.E., Capt. Gilfred Knight, Colonel E. D. Malcolm, of Poltalloch, C.B., Mr. E. Luxmoore Marshall, Mr. E. H. Mathew-Lannowe, Dr. G. B. Mason, M.R.C.S., L.R.C.P., Mr. A. J. McConnell, Mr. Thomson L. McIntock, the Hon. Gideon Murray, M.P., Mr. J. Buchanan-Murray, Messrs. James Nourse, Ltd., Mr. R. M. B. Parker, Mr. A. E. Perkins, J.P., Sir Owen Phillips, G.C.M.G., M.P., Mr. C. A. Poole, Messrs. Pott, Cassels and Williamson, Mr. John Poyer Poyer, Mr. H. F. Previt , Mr. and Mrs. Joseph Rippon, Mr. A. W. Rogers, Mr. Robert Rutherford, Major-General A. E. Sandbach, C.B., D.S.O., Mr. J. Herbert Scrutton, Mr. William Smith, Colonel the Hon. R. and Mrs. Stapleton-Cotton, Mr. G. Moody Stuart, Mr. J. B. Taylor, Captain H. G. Watson Taylor, Mr. J. Ernest Timne, Colonel W. Tolson, Mr. A. B. Tucker, Mr. C. C. Tudway, Mr. C. F. Wood, and Dr. A. E. Wynter, M.R.C.S., L.R.C.P.

The delegates to the Associated West Indian Chambers of Commerce, which met in Port of Spain on January 23rd, 24th and 25th, were as follows:—Sir Edward Davson (President); Barbados—Mr. H. B. G. Austin and Captain W. Bowring; Demerara—Hon. A. P. Sherlock and Mr. Paul Cressel; St. Lucia—Hon. Gabriel Lafitte and Mr. Wells Palmer; Montserrat—Hon. W. L. Wall and Mr. Charles Grifer; Antigua—Hon. Donald McDonald; St. Kitts—Mr. J. R. Yearwood; Nevis—Mr. A. Wildy; St. Vincent—Mr. Vernon Richards and Mr. Allan De Santos; Grenada—Hon. R. C. Fitt; Trinidad—Hon. Alexander Fraser, Hon. A. H. Cipriani, M.B.E., Mr. T. Geddes Grant, and Mr. A. S. Creighton.

SOME NOTES OF INTEREST.

"Pot say to kettle, 'tan 'way, you smudge me."

MR. EDWARD RALPH DOURO HOARE, the eldest son of Mr. and Mrs. Douro Hoare, was married on January 31st to Miss Ellerie Fetherstonhaugh.

THE Nourse Line announce a reduction in freight rates from Calcutta to the West Indies, as follows: Rice and dhall, from 60s. to 55s.; gunnies, 70s. to 63s. per ton.

THE Colonial Sugar Refining Co., Ltd., of Australia, with a capital of £2,600,000, made a profit of £173,097 for the six months ending September 30 last.

COLONEL HALL GRANT PRINGLE, D.S.O., R.F.A., has been appointed Inspector of the West Indian Local Forces, and Officer Commanding Troops in Jamaica, in succession to Colonel G. G. Sandeman Carey, C.B., C.M.G.

MR. J. SYDNEY DASH, who left Guadeloupe last year to take up an appointment as tobacco specialist at Ottawa, has now been promoted to the position of Supervising Analytical Botanist in the Seed Branch of the Department of Agriculture of the Dominion of Canada.

SIR HYLTON RALPH BRISCO, of Coghurst Hall, Sussex, who was missing on the arrival of the P. and O. liner *Narkunda* at Colombo, on January 31st, paid more than one visit to the West Indies, where he owned property. He was a member of The West India Committee.

MR. R. O. WILLIAMS, Curator of the St. Clair Experiment Station, Port of Spain, writes that the yield of cacao in Trinidad may be regarded as three to four bags of 165 lbs. per acre, and that of Grenada as four to five bags of 180 lbs. per acre, and not as previously stated.

A MORTGAGE deed was registered on January 20th, given by Home Crown Beet, Ltd., to the National Provincial and Union Bank of England, Ltd., for £40,000, charged on hereditaments and premises comprised in a mortgage registered on August 21st, 1921, securing £75,000.

A BARBADOS correspondent, writing from New England recently, during a blizzard, said, "It is always a comfort to pick up the CIRCULAR on days like this and to remember that 'somewhere the sun is shining,' and that 'Little England' never saw a flake of snow, while as for ice—well, we don't have to walk on it there, anyway."

LAST season's production of sugar in Australia amounted to 280,000 tons, and this year's crop is estimated at 300,000 tons. The 1920 consumption was, according to *The Australasian Grocer*, 285,000

tons, and it is not anticipated that this figure is likely to be exceeded. There will, therefore, be no occasion to import sugar into Australia to augment the local production.

THE following publications are obtainable at The West India Committee Rooms, 15, Scething Lane, London, E.C.:—"The Manufacture of Cane Sugar," by Jones and Seard, 26/-; "The Banana," 8/-; "The Cane Sugar Factory," 3/-; "Historic Jamaica," 8/-; "West Indian Tales of Old," 8/-; "Handbook of St. Kitts-Nevis," 5/6. These prices include postage.

THE following Office-Bearers of the Royal Agricultural and Commercial Society of British Guiana have been appointed for 1922:—Hon. R. E. Brassington, President; Mr. G. A. H. Goring, Vice-President; Mr. P. N. O'Hara, Hon. Secretary; and Mr. C. Farrar, Hon. Treasurer. Mr. Algernon Aspinall, C.M.G., has been re-elected Resident-Director in London.

"It is no longer possible to separate the world of industry into compartments, and to expect that there can be prosperity in one direction whilst there is poverty in another," said Mr. F. C. Goodenough, at the recent annual meeting of Barclay's Bank. . . . "At the present time it is computed that the total volume of trade does not exceed one-half of its pre-war volume."

PRINCESS MARIE LOUISE was present at the marriage of Viscount Sandon to the Hon. Helena Coventry, at St. Peter's, Eaton Square, on January 31st. It may be recalled that Lord Sandon and his father, the Earl of Harrowby, visited Jamaica and Panama Canal in 1920. Lord Sandon, who was then Lord Milner's private secretary, spent a few weeks in British Honduras, where he made many friends.

ON three voyages in 1921, and one in January last, Messrs. James Nourse, Ltd., carried 11 second-class and 476 third-class passengers from Calcutta to Demerara and Trinidad. Now that the embargo on repatriated East Indians returning to the West Indies has been removed, it is probable that the passenger lists will, in the future, be larger than they have been in the recent past, and, of course, if the immigration of East Indians into the West Indies on a colonisation basis is established, the run on the Nourse Line, which establishes a valuable link between Calcutta and the West Indies, for passages, is certain to be heavy.

THE news of the tragic death of Sir Ernest Shackleton on board the *Quest* off South Georgia—at the gateway to the Atlantic—will have moved West Indian readers as profoundly as it has those at Home. It will awaken memories among those who heard his virile speech at the dinner given by The

West India Committee to the Commissioners at the Tropical Products Exhibition on July 1st, 1914. On that occasion, responding to the toast of the Imperial Antarctic Expedition, on which he was about to embark, Sir Ernest paid a remarkable tribute to the value of cane sugar. Sugar, he said, had saved their lives on one occasion, and might do so again, adding: "There are all sorts of beers, and all sorts of sugars, but there is only one sort of sugar that the Polar Expedition should take, and that is cane sugar."

* * *

Lest any misunderstanding should arise from the paragraph regarding the West Indian mail service which appeared in last issue, it should be mentioned that it had reference to the fortnightly steamer service which British traders hoped might be re-established between this country and the British West Indies. The CIRCULAR is second to none in appreciating the great advantage of the services which have been conducted since October, 1920, at the request of The West India Committee, by Messrs. Thos. & Jas. Harrison, with their steamers *Ingoma* and *Intaba*. They have given very general satisfaction. The vessels appear to be exactly the type required for the West Indian route, combining as they do facilities for carrying cargo as well as passengers, and many hope that arrangements may be made whereby this admirable service may be developed, when occasion arises, by the addition of yet more steamers of the same class, which would meet all the requirements of the situation.

* * *

"CHRISTMASTIDE," British Guiana's Annual for 1921, published by the Argosy Company, is full of good articles, both grave and gay, poetry and jokes. Mr. N. J. A. Bascom writes with practised hand of virtue triumphant—the manager's daughter, her twin sister, the overseers, and the callous absentee, who ends up in a mental hospital at Ealing, as recorded in "a paragraph in THE WEST INDIA COMMITTEE CIRCULAR." Mrs. E. F. Waby, formerly of Demerara, and now of Trinidad, Mr. Jas. Rodway, Miss I. M. Holder, and Mr. Harold Stephenson also contribute short stories, with local colour. For the more seriously-minded, L. Evelyn Moe gives the history of the beautiful cathedral of St. George's, and the six pages of illustrations would lighten the pages if that were needed. Portraits of the Rev. E. A. Parry, till lately the Archbishop of the diocese, and his successor in the Bishopric, Bishop O. H. Parry, M. Hoosain, a veteran Mohammedan priest, and the late Mr. Luke M. Hill, among others, are good examples of local half-tone work in this admirable annual.

PEPPER PUNCH.—24 bottles of water, 1½ or 2 bottles of rum, half a bottle of brandy, 1 bottle of lime juice, 9 or 10 lbs. of sugar, 50 negro peppers, 2 ozs. of powdered ginger, 1 tablespoonful of cream of tartar. Boil the pepper and ginger, and add the other ingredients (the cream of tartar last). After two hours, strain clear and bottle in stone jars. Some people do not strain or bottle for three days, and these use no cream of tartar.

JAMAICAN AFFAIRS.

Imperial Association's Manifesto.

A wide variety of subjects is dealt with in masterly fashion in a Memorandum which the Jamaica Imperial Association presented, by Mr. A. W. Farquharson, on behalf of that body, to Mr. Edward Wood, M.P., in Kingston, in January last.

The first matter to which the association drew the attention of the Under-Secretary of State for the Colonies was the importance of utilising every agency calculated to protect and develop the agriculture of this Colony. With this end in view, the association endeavoured in 1910 to secure that Jamaica should be made the headquarters of the Imperial Department of Agriculture, and should also be made the site of the proposed West Indian Agricultural College. It was, however, decided by the Committee appointed by the Colonial Office that both the headquarters of the Imperial Department and the Agricultural College should be situated in Trinidad, and since then the Secretary of State for the Colonies has requested that Jamaica, with the other West Indian Islands, should make a contribution towards the maintenance of the Department. "This proposal," states the Memorandum, "has been submitted to the Legislative Council, but has not yet been dealt with. The association has no doubt that the vote asked for will be granted, but it would strongly emphasise the necessity of Jamaica being more closely associated with the Imperial Department of Agriculture for the West Indies, even if this entails a larger expenditure on Jamaica's part than the £518 per annum suggested. This connection is regarded as of the first importance by Jamaica agriculturists and stock breeders. There was a small provision made on the Jamaica Government's Estimates in 1917-18 and 1918-19 to meet the expenses of an annual visit from the Imperial Commissioner. This provision was struck off the Estimates of 1919-20, and since then the Imperial Commissioner has not visited the Island. This is felt to have been a great loss. During his two visits the Imperial Commissioner rendered very valuable services to the agriculture of the Island, and the need of his personal visits has more than once been keenly experienced."

As emphasising the need for the visits of the Commissioner, reference is made to the spread of Panama disease and the increased prevalence of the Banana borer weevil and stock disease.

The establishment of an Agricultural State Bank is next warmly advocated. Attention is called to the scarcity of British capital owing to the adverse effect of British and Continental sugar legislation, and it is suggested that, following the lines of Australian legislation, an Advance Department of the Government Savings Bank should be created.

The desirability of railway electrification, which is favoured by the association, is next discussed, and the Governor's remarks regarding the super-tax criticised, His Excellency having stated that

the amending law was "aimed against the formation of large estates, because they are inconsistent with the exercise of the full rights of citizenship." A note of warning regarding the dangers of the interference of the Government in industrial matters to the prejudice of local enterprise is next sounded, and after deprecating any increase in the income tax, the memorandum passes to a review of the political situation.

"Connected with the economic stability of the country are the political situation prevailing at any time and the relations of the several classes of the population to one another. In the past, since 1866, these relations have been, on the whole, satisfactory. It has been observed by competent outside critics, and been admitted within the Colony itself, that class problems have not been acute in Jamaica, and that race antagonism has been almost undiscernible. During the last two or three years, unfortunately, a change in this respect has been observable; doubtless this is to be attributed to the profound disturbances created by the European war. This change is still mainly on the surface, and with the wise exercise of the influence and power of a Government careful to discountenance class feeling, and also with an intelligent appreciation on the part of the better educated classes of the community of the needs and legitimate aspirations of the masses, the nascent antagonisms referred to may completely disappear.

"This brings the Jamaica Imperial Association to a brief consideration of the demand put forth recently for a change in the political constitution of Jamaica. This demand originated amongst certain elected members of the Legislative Council who were not satisfied with the influence and control exercised by the elected members on legislation, finance, and administrative officers. During speeches delivered at some political meetings within the last six months the view has sometimes been expressed that the controlling power in matters of Government should be in the hands of 'the people.' But up to now no responsible legislator or public man has definitely formulated such a request, and this view appears now to be receding into the background of political discussion. Such public opinion as has been expressed most widely seems to be in favour of some political machinery whereby the elected members should be directly identified (by means of a specially created Executive Council or Committee) with the initiating of Government proposals before they are submitted to the Legislative Council. With this opinion the Jamaica Imperial Association is in sympathy, as it is with every movement calculated to make for real and satisfactory political development and the legitimate strengthening of the position and influence of the elected members of our Legislature. But it is clear that if any change in the direction of placing ultimate political power in the hands of 'the people' were to take place, the Government being supposed to remain responsible for the good government of the island, a chaotic condition would immediately ensue. Responsibility cannot be divorced from power, and as no one suggests that Jamaica

has reached the stage where it should undertake its own government, it is obvious that nothing like Responsible Government could be established at present in Jamaica. It is also clear that if power without responsibility were placed in the hands of the democracy there might be exercised an undue pressure on the classes who supply capital for local investment, and on whose energy and enterprise the development of the island so largely depends. This would be a misfortune, the effects of which would soon be directly felt by the working population itself; and it must be remembered that the working population in the main desires, not radical political changes, but good and just government and personal improvement.

"The Jamaica franchise was put on a very low basis in 1884. Any proposal to alter it, with the object of disfranchising a large number of existing voters, would naturally foment discontent and annoyance. At the same time it is evident that political experience and training are still largely lacking in this Colony, and in the circumstances the situation could hardly be different. It follows that a considerable extension of political power, divorced from political responsibility, is out of the question; and the responsibility for the good governance of the Colony ultimately rests, under the Jamaica Constitution and rules of the Colonial Office, on the Governor of the Island. So great a responsibility would necessarily imply that the Governor of the Island should be a man of sound financial and administrative capacity and good judgment. However much the elected members of the Legislative Council may be associated with the Government in the initiation of legislation, financial and otherwise, yet the ultimate responsibility can in no wise be shifted from the Governor, who is in a position to have an intimate knowledge of the financial condition of the country and of the working of every Government Department such as no elected member, with his limited opportunities of acquiring detailed information and his ordinary private duties to engross his attention, is likely to command.

"Our present Governor must be credited with excellent intentions; yet no doubt exists in the Island amongst thinking people that His Excellency has in many instances not shown full appreciation of the needs of the island or of the financial outlook. (Reference has already been made in this Memorandum to one or two instances of this, such as the severance of relations with the Imperial Department of Agriculture and the imposition of the super-tax.) The general impression is that schemes propounded by His Excellency have not the appearance of having been carefully thought out with due regard to the Island's needs and capabilities."

A résumé of some of the schemes to which exception is taken follows, and the Memorandum proceeds to press for the appointment of a Financial Expert to examine and report on the colony's finances and to bring them back into something like order once more.

Reference is then made to questions affecting the other West Indian colonies as much as Jamaica,

such as the prevention of dumping, the view of the Association being that the depreciated exchange on the Continent is likely to work far more damage to the reviving West Indian sugar industry than even the old bounty system. To remedy this, the Association suggests two measures, namely, the adoption of anti-dumping legislation and a guaranteed tariff preference for ten years in the United Kingdom.

Finally, the Association favours the adoption of a uniform system of currency throughout the British West Indies, and warmly supports the proposal to hold a West Indian Conference in Trinidad, emphasising its original suggestion that these West Indian Conferences should be held in each of the larger colonies periodically. "Thus not only Trinidad, but Jamaica, British Guiana, Barbados, and possibly some other colony should be in rotation the scene of the recurring West Indian Conferences. Although Jamaica is separated from the nearest sister West Indian colony by nearly 1,000 miles, it is nevertheless of sufficient importance to be closely identified with all movements having for their object the drawing together of the British West Indies and their common co-operation. But unless, at certain intervals, the West Indian Conference is held in Jamaica, it will clearly be impossible for the inhabitants of the island to feel that they are regarded as an integral and important part of the whole British West Indian system."

CUBAN SUGAR PRICES.

Messrs. Willett & Gray published in their *Weekly Statistical Journal* of January 12th the useful table which is reproduced below, showing the cost and freight sugar quotations for 96 deg. Cuba centrifugals for the past twenty years:—

	Highest.	Lowest.	Average.
1921	5.25	1.813	3.459
1920	22.50	3.625	11.337
1919	12.50	5.88	6.354
1918	5.88	4.985	5.014
1917	6.50	3.8125	5.208
1916	5.625	3.50	4.767
1915	4.18	2.625	3.626
1914	5.50	1.875	2.745
1913	2.44	1.875	2.150
1912	3.44	2.41	2.604

Average for 10 years 4.746c. net cash.

	Highest.	Lowest.	Average.
1911	4.40	2.06	3.090
1910	3.09	2.44	2.828
1909	3.09	2.25	2.646
1908	3.125	2.31	2.713
1907	2.59	2.03	2.396
1906	2.73	2.00	2.316
1905	3.875	2.06	2.918
1904	3.50	1.97	2.626
1903	2.225	1.815	2.035
1902	2.31	1.585	1.857

Average for 20 years 3.644c. net cash.

The U.S.A. Customs tariffs for the last 25 years have been:—

DUTIES.	Cuba 96°	Other Countries 96°
July, 1897, to December 27, 1903	1.685c per lb.	1.685c per lb.
December 27, 1903 to March 1, 1914	1.388c per lb.	1.685c per lb.
March 1, 1914 to May 27th, 1921	1.0348c per lb.	1.256c per lb.
May 27, 1921 (still prevailing)	1.600c per lb.	2.000c per lb.

SUGAR SITUATION IN HAWAII.

(Continued from page 51.)

This article, the first instalment of which appeared in last issue of the CIRCULAR, is abridged from one appearing in the "Sugar Central and Planters' News of the Philippines." It gives an interesting account of the condition of the Hawaiian sugar industry, which is passing through a serious crisis.

"(5) Hawaii is to-day short of labour. Not only has labour left the islands, but small enterprises and businesses have drawn men from the plantations. On every hand we hear of delayed cropping, of unweeded and unirrigated fields, of unplanted land and a general slowing up of operations which is nothing short of disastrous. The fields on the Island of Oahu are to-day showing the effect of this general condition. Mature cane, which should have long since been milled, is standing in the fields, and young cane of the 1922 crop shows the effect of the lack of care and attention. Ploughed fields remain unplanted; in fact, little or no new planting has been done at this writing. Out-turns are practically 50 per cent. of normal, and many factories will be crushing the present crop of cane when the new crop is ready for milling.

"The 1922 crop will be short and a reduction of areas under cane will be in order for some time at least. If the general status as to labour in Hawaii is not relieved we may see some of the plantations which have no economic right to exist under present-day conditions, close down and release to those better able to stand the strain their quota of labour. We may also see concentration of plantation interests, a decided effort made toward the cutting out of lax methods and concentration of plantation operations which will work for reduced costs of production at a time when ever-increasing costs are causing considerable worry at plantation headquarters. As sugar gives promise of selling at low prices for some time, economies must be effected.

"The growth of the pineapple industry in Hawaii has had a distinct tendency towards reducing the labour available to the sugar plantations. Again, the employment of Orientals on Government work has drawn considerable labour from the sugar estates. We have been given to understand that the ruling regarding the employment of non-citizen labour on public works is now being enforced, and much skilled labour will be returned to the plantations, but this will not affect the supply of common labour. We do not see any hope for Chinese emigration to Hawaii under sanction of Congress. Any movement looking towards Chinese emigration will arouse the interest of Japan, which will, under the cry of discrimination, ask for equal privileges with China, and the general policy of the American Government toward the Orientalisation of her labour will put a quietus upon any movement to assist Hawaii. That Hawaii's claim for assistance at this time is just there can be no question, and that relief

will be forthcoming is very probable. Porto Rico, the Philippines and Mexico offer the only available relief for this serious problem, but until relief is at hand Hawaii can look for difficult times ahead.

"(6) Everything that Hawaii does is done wholeheartedly. Her methods of agriculture, her irrigation systems, her milling results and her general efficiency, the like of which cannot be found in any other sugar-producing country, are the best proof which can be offered of the wholehearted manner in which she does things. In her characteristic way she has entered into her programme of welfare work among plantation labourers. Were times normal the welfare movement would have had no untoward results, but coming at a time when labour is dissatisfied over conditions, real and imaginary, it cannot but help to misconstrue honest efforts to improve conditions as meaning nothing if not an effort to win its good will through better housing, moving picture shows, clubhouses, dance halls, etc. In consequence, the ill-effects of welfare work are unmistakable. Conversations with plantation men, managers as well as members of their staffs, have elicited but one opinion—that welfare work should cease or be less active until the true motive in bettering living conditions can be appreciated by the labourers. It must be borne in mind that gratitude on the part of labour the world over for the solicitous attitude of the employer is usually non-existent. The motive behind any demonstration of interest is always questioned. If welfare work is desirable in Hawaii, and a certain amount of it is desirable, let the labourer pay for it, and thus give him the benefit of such welfare work when he wants it, and when it will cost him something. To pamper labour, or, to use the famous Rooseveltian expression, to 'mollycoddle' it, is fatal, and we beg leave to suggest to those interested in the production of sugar in Hawaii that they call a halt in the elaborate welfare scheme now being fulfilled.

"(7) Probably the most serious condition which Hawaii is to-day facing, a condition which seems to be almost beyond solution, is the deforestation of forested areas. Hawaiian forests are disappearing, and with them the water sheds which furnish surface water to many of the irrigated plantations. On Hawaii and on Maui the results of the dying of wooded areas are plainly noticeable. Ditches carrying water from the mountains run full and empty over very short intervals, whereas several years ago the fluctuations of these streams were but gradual, even over long periods of drought and rainfall. Another ten years, unless something definite is done immediately, may find many of Hawaii's plantations short of water, both surface and artesian. The marvellous yields of cane in Hawaii are primarily due to the wonderful flows of artesian water which are found on the lee of several islands, but that the destruction of the forests will ultimately affect this artesian flow there is no doubt. There is a solution for a labour problem, but there is no solution for the ever-decreasing forest areas save that of a vigorous tree-planting campaign in the foothills."

SUGAR IN GREENOCK. The Evils of State Control.

The Convener of the Sugar Section of the Greenock Chamber of Commerce contributes the following summary regarding the sugar situation to the report of the directors for 1921:—

"In the month of February last year, the sugar industry was, to a large extent, released from the Government control which had existed continuously since August, 1914, and at the end of September complete emancipation took place. The restoration of the trade into private hands is, of course, welcomed in sugar refining as in other industries, but satisfaction is tempered by the fact that the transfer has taken place during a period of rapidly falling prices. For Cuba Centrifugals which were worth 20/- per cwt. in September, the price at the end of the year is 10/6 per cwt. Taking freight and exchange into account, the latter price is under the pre-war average value, and also, no doubt, under the cost of production, so that the New Year commences with a limitation in the range of further possible declines.

"The meltings for 1921 in the Clyde Refineries have been 182,878 tons as against 216,007 tons in 1920, and 259,642 tons in 1919. There are many reasons to account for this somewhat serious falling off. During the period a disappointing trade demand was experienced, coupled with increased importation of American and Canadian granulated, but the most serious cause was undoubtedly the stoppage of refineries owing to the coal strike. Investigations were made with the view to adapting furnaces for the burning of oil, but obstacles in the way of transporting the fuel from the nearest depot proved insuperable, and a lengthy stoppage of work ensued. The difficulty of obtaining supplies of raw sugar was another contributory cause. It would have been natural to suppose that holders of the vast quantities of raw sugar in existence in Cuba would have been glad to send their goods to a market ready to buy them, but this was not the policy pursued by the Cuban Selling Committee, and the curious situation developed that, while stores in Cuba were filled with unsold stocks of old crop, and a new crop was commencing, refineries in this country were from time to time at a standstill, or working a short melt. The Cuban Committee has now been dissolved, its efforts having met the usual fate of attempts to interfere with the play of natural laws, and more healthy market conditions are likely to result.

"During the latter part of the year, Greenock, in common with other British refining centres, has experienced a serious amount of competition from America. Throughout the control period, considerable quantities of American refined were imported by the Royal Commission, but the persistent export of refined from America during recent months is a new feature which must be taken seriously by the British trade. This development is probably the result of the treatment American refiners received from their Government during the war, which appears to have been generous as compared

with that accorded to the British industry, and it would be easy to show how heavily British refiners are handicapped in consequence. The situation as it is, however, must be faced, and it is quite certain that if Greenock is to maintain its position as a refining centre, the present cost of working must be materially reduced. Information has just been received that American refiners have undertaken to refine a quarter of a million tons of sugar for export to Europe on account of Cuban planters at a rate which it is safe to say no Greenock refiner could accept, with costs as they are at present. To meet this threatened invasion, an important reduction in expenses is urgently necessary, and the adjustment should be made quickly before the invaders have had time to entrench themselves too securely. There is plenty of room for such an adjustment, still leaving costs per ton at a higher ratio to those of 1914 than the present cost of living bears to the cost of living of that period. Co-operation and sacrifice on the part of everyone concerned will be required if Greenock is to emerge successfully from the struggle. There is no doubt that 1922 will be a testing year."

BET AND THE EXCISE DUTY.

The Committee of the British Sugar Beet Growers' Society, Ltd., make an important declaration of policy in their report for the year ended September 30th last. They state that they have considered very carefully the question of the effect of the present Excise Duty upon sugar during the initial stages of the home industry, and have resolved as follows:—

Having regard to (a) the very great benefits destined to accrue to agricultural production in the United Kingdom from the introduction on an extended scale of sugar beet cultivation; (b) the urgent need for, as far as possible, limiting this country's commitments to purchase indispensable commodities from foreign countries; (c) the exceptional disabilities under which a new industry must almost inevitably suffer during the period of its establishment, this being especially the case at a time of general industrial dislocation, resulting in a very marked disparity between costs of production and prevailing market prices for commodities. It is resolved that:—

(1) Representations shall at once be made to His Majesty's Government advocating the remission of the Excise Duty upon sugar produced from beet grown in this country until the industry is firmly established.

(2) That the industry be considered to be firmly established when the production is reached of 50,000 (fifty thousand) tons of sugar per annum, as laid down by the deputation to the Colonial Office introduced by the Rt. Hon. W. M. Hughes, on June 21st, 1916.

(3) That the Minister of Agriculture be asked to receive a deputation from the Society to present the case for such remission of duty.

THE GUARANTEED PREFERENCE.

Is it to be rate or value?

Mr. Edward Wood, M.P., and his party left Trinidad for Dover on board the s.s. *Oranje Nassau* yesterday. They had intended to return in the *Ingoma*, but owing to some uncertainty as to the date of the sailing of that vessel, they were compelled to alter their plans.

From Mr. Edward Wood's remarks at a meeting of the Barbados Chamber of Commerce at Bridgetown on January 16th, it would appear that the door is still open to the possibility of the maintenance of the present value of the tariff preference in the United Kingdom.

Responding to an able speech by Mr. H. B. G. Austin, who urged that the preference on 96° sugar might not be reduced below its present figure for a definite series of years, Mr. Wood foreshadowed the announcement which he made some days later in Trinidad to the effect that the British Government had decided to guarantee the existing rate of tariff preference for ten years.

Proceeding, he said, "I am not so sanguine at present (the italics are ours) about the possibility of being able to say the same with regard to the securing for that period of ten years of the actual amount of the preference." There were difficulties in the way of that, and it was not his business, nor was he competent, to say whether they ought to be final. The first arose from the general financial position of the United Kingdom. Assuming that the Chancellor of the Exchequer should say, "We will give you not only the same proportion of whatever duty we may levy—namely, one-sixth—for that period of ten years, but the same £8 15s. per ton; we will give you the same actual preference per ton whatever our duties are in England," what effect did that have on those at home? It really had this effect: As long as the sugar duties were above the actual rate of the preference he was making a present to the West Indies at the expense of the British taxpayer, because the British taxpayer had obviously got to make up the difference. The second difficulty was this: If he had to tie himself or his successors to making permanent the actual amount of £8 15s. per ton, that obviously precluded him or his successors from lowering the duties below that figure. There was another difficulty. The Chancellor of the Exchequer would feel that if in place of the principle of maintaining the proportionate preference of one-sixth he were to substitute the principle of maintaining the actual preference, he would be met with a similar request from every other colony, which would place him and the Treasury in a very difficult position.

"I am not," continued Mr. Wood, "as I have said, competent to express an opinion on those difficulties, but I certainly hope with you that they may be found not to be insuperable. I want to speak to you perfectly frankly, and by the way the Chancellor of the Exchequer talked, I do not wish to hold out to you any suggestion of a permanent preference of £8 15s. per ton being maintained. I shall certainly do my best, after I have had the opportunity of receiving your representations, Sir,

and the representations that will no doubt be forthcoming from other colonies, to put your case as strongly as I can to the Secretary of State and the Chancellor of the Exchequer. And I would be very grateful, Sir, if, before I leave the West Indies, you should think it fit, together with those who advise you, to let me have on paper your case developed on that point of the United Kingdom retaining on a permanent basis the actual amount of the preference. If you do that, I will certainly undertake to consider it carefully and to see that it is properly represented at home."

IN TWO recent CIRCULARS,* illustrations of impressions of old seals of the Bahamas and Barbados in the Bodleian Library at Oxford were given. To these it is now possible to add a reproduction of an impression of an old seal of Jamaica of the reign of George II. (1727-1760). Mr. Frank Cundall records in his delightful book, "Historic Jamaica," that the earliest reference to the seal of the island is contained in "The State of Jamaica under Sir Thomas Lynch, 1688," printed in the Laws of Jamaica in the following year. It is as follows: "The King has likewise honoured this Island with Arms and with a publick Broad Seal; and on one side of it his Majesty is seated on his Throne, with two Indians on their knees, presenting him Fruits, and two Cherubims aloft, supporting a Canopy; underneath his Feet, this Motto: *Duro de Cortice fructus quam Dulces.*† . . . On the other side is an Escutcheon, bearing a Cross charged with five Pines; two Indians for the Supporters, and for the Crest an Alligator. . . . The Motto underneath the Escutcheon is, *Indus Uterq; serviet uni.*‡ All this, as I have heard, was designed by the present Lord Archb'shop of Canterbury, in the year 1661, and the Seal then delivered to Sir Charles Littleton, that came hither Chancellour, for the Chancellours always keep it, and with it Seal all Publick Grants, Commissions, Patents, &c."



An Old Jamaica Seal.

COCO-NUTS IN MALAYA.

In his report for 1920, Mr. L. Lewton-Brain, formerly of the Imperial Department of Agriculture, and now Director of Agriculture in the Straits Settlements and Federated Malay States, states that the fall in the price of rubber has caused the small holder to realise the value of his coco-nuts in supplementing his income, especially as the price of coco-nut products has remained firm for a longer period than has that of rubber. Considerable attention was directed to the clearing up of native coco-nut holdings, but in the latter part of the

year the general condition of holdings tended to deteriorate, as natives were compelled in cases to leave their holdings in order to seek employment.

Work was commenced on individual tree selection for particular vegetative and fruiting characteristics on the Government experimental coco-nut plantation at Sapintas. Yield tests are also being carried out on a large coco-nut estate with a view of finding the heavy yielders.

Special attention was given last year to investigation in fungoid diseases and plant pests. The mycologist has proved by inoculation that the in-

roduction of any organism capable of vigorous growth on coco-nut bud tissues will cause symptoms previously considered typical of bud rot (that is, killing and falling over of central leaves) if introduced into the bud direct. Seven different cultures were employed—three bacteria, one a mixture of bacteria and three fungi. Successful inoculations were obtained in each case. The conclusion would appear to be—and this is supported by general experience in the Malay Peninsula—that epidemics of bud rot are unlikely to occur in Malaya unless there is some contributory factor other than fungus or bacterium affecting the rate of spread. Other mycological investigations on coco-nuts included stem bleeding, transverse leaf break and nut drop of coco-nuts.

MISS EDIE HARRAGIN, of Trinidad, who made her debut on the concert platform at the Aeolian Hall last year, will appear there again on March 14th.

*No. 607, January 5 and No. 608, January 19.
 †How sweet the fruit the hard rind yields.
 ‡The Indians twain shall serve one Lord.

TOLL FOR THE**A.S.R.C. Scheme in Jeopardy.**

Mr. H. A. Himely, of Cuba, reported on January 14th that under the name of the Sugar Export Company, the tolling proposition for old crop Cuban sugar was now in effect. The only refiners, however, reported as interested in it were the American Sugar Refining Co. and B. H. Howell, Son & Co. The original proposal for establishing a tolling arrangement for old crop Cuban sugar was rejected by the President early in December. Later in the month, however, a modified scheme was introduced whereby 500,000 tons of old crop Cuban sugar was to be admitted free of duty for refining and subsequent re-export. Mr. Himely now states that "the quantity has been reduced from 500,000 to 250,000 tons, and the question of free entry seems to be in doubt. Mr. Fordney, whose name is now famous on account of his Bill which obliges Cuban sugar to pay increased duties, is said to be authority for the statement that free entry would be unconstitutional, and would meet with energetic opposition from the American Congress, insisting that this tolling proposition should be subject to the usual advance of duties on entering the United States, and the return of the usual drawback on being exported to Europe."

It is understood that of the 250,000 tons of sugar, 100,000 tons have now been disposed of.

A QUESTION OF QUALITY.

The paramount importance of exporters maintaining the quality of their produce to which attention has often been called in these columns is further exemplified by the following letter from a Canadian buyer of fancy molasses received by a firm of shippers in Bridgetown, and published in the *Barbados Agricultural Reporter* of December 24th:—

"In re 'Quality of Molasses,' we have had a great many complaints about the quality of molasses, more than we have received for many years, and we want to impress upon you and the other shippers in Barbados the absolute need to ship molasses that is right in every way. If you do not give this your very careful attention it means the end of the molasses business. It is absolutely vital to your interest to have molasses that is satisfactory, and the molasses that we have been getting from your good selves has certainly not been right as far as quality is concerned. It is very thin, and very dark, and the flavour is not what it should be. These three qualities must be improved very considerably next year, or your island will be the sufferers in the long run. I do not think that we can emphasise this point too often. We have had so many complaints that we are rather tired of the whole situation, and we cannot emphasise too much the importance of shipping molasses that is right in every way."

TRINIDAD'S TRADE.**Annual Report for 1920.**

In his Annual General Report on Trinidad and Tobago for 1920, Mr. H. B. Walcott, Acting Colonial Secretary, states that the opening of the year found the Government in a sound financial position with a surplus amounting to £206,740. The revenue in 1920 was £1,917,743, exceeding the preceding year's figures by £574,859. Customs duties, which contributed £638,098 to the above total, formed the largest item. The Income Tax (which is on incomes in excess of £500) realised £107,951. The total expenditure amounted to £1,652,597, being more by £343,190 than that for 1919. At the end of 1919, the Public Debt amounted to £2,208,593. During 1920, £830 was redeemed, but with the raising of the million pound loan to meet the cost of railways, roads and other public services, the total loan indebtedness was increased to £3,207,763, against which there was an accumulated Sinking Fund of £497,394.

The total import trade amounted to £9,498,166, representing an increase of £3,280,932 on that of 1919. Of the above the entrepot shipments were valued at £1,007,934. The share of the United Kingdom in the import trade, which in 1914 was 34.6 per cent., and had dropped in 1919 to 16.7 per cent., showed an upward tendency, being 26.5 per cent. for the year under review. The total value of exports was £9,416,545, as compared with £7,256,594 in the preceding year. The following table gives the quantity and value of the principal products exported:—

		£
Asphalt (including Manjak)	113,697 tons	265,540
Bitters	65,064 gals.	65,061
Cacao	69,723,623 lbs.	3,536,830
Coconuts	24,135,100 nuts	398,669
Copra	2,134,570 lbs.	42,351
Molasses	557,491 gals.	66,141
Rum	50,105 gals.	14,225
Sugar	47,967 tons	2,656,625
Petroleum. Orude	31,905,833 gals.	429,346
Petrol Spirit	2,420,821 gals.	141,128
Refined Kerosene	1,927,329 gals.	87,269

As regards the direction of trade, the United Kingdom led with 43.9 per cent., the United States being second with 25.5 per cent., whilst Canada only took 2.3 per cent.—a proportion which has doubtless been already increased as a result of the 1920 Trade Agreement.

Dealing with the Colony's agricultural industries, the report states that the stoppage of Indian immigration has helped to concentrate more attention on implemental tillage, and animal-drawn implements were used much more extensively both for preparing the land and cultivating the crop. Mosaic disease of the cane, so well spread in sugar countries, made its appearance but was proclaimed under the Plant Protection Ordinance and action promptly taken to prevent its spread. At the close of the year a special vote was granted to enable the Department of Agriculture to eradicate it as completely as possible during the dry season of 1921. The amount of coconuts and their equivalent in copra exported represented about 8,000,000 nuts on the previous year's shipments. This was partly due to their being more largely used locally in view of the high cost of imported fats. New areas are being put under coconuts, and there is promise of a rapid increase in the output in the course of a few years. Mr. W. Nowell, the Assistant Director of Agriculture, has discovered that the so-called root

disease, which has been a cause of loss in some districts for many years, is due to a nematode worm, and it may now be possible to discover some means of cure or prevention. The rubber exports (29,739 lbs.) showed a decrease of 11,280 lbs. over those of 1919. Most of it is now Hevea (Para) rubber. The leaf disease which has caused such havoc in the mainland, has not done serious damage in Trinidad. Fibre cultivation for the manufacture of pulp for paper is likely to be a prominent feature among the coming agricultural industries of the Colony. The poor crop of limes was due largely to attacks by the wither tip disease. The cultivation is, however, being extended, particularly in Tobago. The latter Island continues to make rapid progress, the value of its agricultural exports to Trinidad in 1920 being £147,572, more than ten times that of 1897. Live stock comes third in value in its list of exports.

The production of oil in 1920 was 72,995,947 gallons as compared with 6,000 gallons in 1912. Practically all the petroleum produced in Trinidad has been obtained from strata of Tertiary age. The specific gravities of the crude oil vary on the different fields from an average of 0.9553 to 0.8015. At the end of 1920 there were twenty-two companies actively engaged in the exploitation of oil in the Colony, holding approximately 200,000 acres under lease and having a share capital of over £10,000,000. Wells drilled number over 520, of which 313 are on Crown Lands. It is computed that the industry provides employment for 5,000 men. The area of Crown Land remaining unsold on December 31st was 596,222 acres, of which 16,946 are in Tobago, but a great deal of the above total is in forest reserve or under licence to oil companies.

The general health conditions of the Colony were exceptionally good. The continuation of the campaign for the eradication of Hookworm, the anti-malaria measures carried out in the rural districts, the successful treatment of yaws by salvarsan, and the good work done by the Tuberculosis Association and the Mothers' and Infants' Clinic all bearing fruit.

EXOTIC COTTON IN NIGERIA.

The purchases of cotton by the British Cotton Growing Association in the Northern Provinces last year amounted to 11,952 bales, as compared with 5,801 bales for 1920, and 7,810 bales for 1919. In the total for 1921, 6,871 bales of the Improved Exotic variety were included. This is regarded as a matter for satisfaction, since Exotic cotton commands a ready sale in England, whereas there is much difficulty in disposing of native cotton.

The development of the production of Exotic cotton is shown by the following table of purchases since 1914 :—

Year	Bales	Year	Bales
1914	11	1918	855
1915	24	1919	2,248
1916	121	1920	3,386
1917	433	1921	6,871

The following were the amounts of British-produced cacao imported into the United States for the eleven months ending November 30th :—

	1919.	1920.	1921.
British West Indies	29,299,081	34,220,138	51,981,629 lbs.
British West Africa	127,700,995	80,063,630	51,360,177 "
From all sources	346,796,778	325,344,642	293,407,879 "

OBITUARY.

DR. JAMES JOHNSTON.

We regret to state that Dr. James Johnston died at Brown's Town, on November 25th, 1921, at the age of 67.

Dr. James Johnston was a man whose personality will be greatly missed. Born in Scotland, he graduated in medicine at the University of Edinburgh and went out to Jamaica forty-seven years ago, when on his way to South America for the benefit of his health. A revolution in that country induced him, however, to remain in Jamaica. Settling at St. Ann's Bay, he represented the parish in the Legislature until the unofficals were placed in a minority during the governorship of Sir Augustus Hemming. At Brown's Town he erected a Tabernacle and became the Founder and Pastor of the Evangelistic Mission in the island, by which his loss will be severely felt. An enthusiastic amateur photographer, the value of his work in this direction was recognised and encouraged by the late Sir Alfred Jones.

MR. JOSEPH CLITHEROE FORD.

The CIRCULAR learns with regret that Mr. Joseph C. Ford has died at his residence, "Boscobel," Constant Spring Road, Jamaica.

Mr. Ford, who had been in failing health for some years, passed away on December 8th last. Born in 1852, he was educated at Douai, in France, and Wolverhampton, where his family were concerned in the hardware business under the name of Ford Brothers. In the early seventies the firm opened a branch in Kingston at the corner of King and Harbour Streets, on the site now occupied by Messrs. David Henderson and Son. Mr. J. C. Ford went out to manage the business, which continued until the great fire of 1882, when it was closed. He subsequently became editor of *The Gleaner*, and, in 1889, secretary of the Jamaica Institute. He was one of the Commissioners, and Special Commissioner for the Bahamas at the Jamaica International Exhibition held during the Governorship of Sir Henry Blake in 1897, and in the same year he was appointed Superintendent of the Government Printing Office, a position which he filled until his retirement in 1919. Gifted with literary ability, he was a contributor to several magazines, and was editor of *The Jamaica Field*. He also edited the *Jamaica Handbook* from 1898 to 1919, latterly in conjunction with his successor at the Institute, Mr. Frank Cundall. Of an artistic temperament, he staged many plays at the Kingston Theatre, including several Gilbert and Sullivan successes. Socially, as an article in the daily which he once edited states, he was genial, affectionate, and attractive. He endeared himself to many admirers, his most distinguished characteristic being his gentleness. An intimate friend writes that he was a very great favourite in Jamaica, "a fellow of infinite jest, of most excellent fancy." He was married to Miss Carman, a Canadian, who survives him.

The subject of the sugar duties in the United Kingdom was dealt with at the new Confectionery Retailers' Conference, held at Durham, at which the action of the Federated Confectioners' Association of the United Kingdom in petitioning the Home Office for a reduction of the Sugar Tax was not supported, as a reduction in the price of boiled sweets would mean a reduction in the gross takings, without additional profits.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The advantage of a sisal hemp industry is being recognised in Jamaica, where there are at present 4,000 acres in cultivation, 3,000 of which are in the May Pen District, where there are also two factories for the production of the fibre. It is proposed, also, to establish factories for the manufacture of rope and twine, with the view of rendering the island independent of outside supplies of these articles.

* * *

The growing of windbreaks has been carried on for many years in Porto Rico in connection with citrus trees, and at present the tendency is to cultivate leguminous plants and trees for the purpose. Among quick-growing kinds, the pigeon pea, *Agati grandiflora* and *Crotalaria juncea* can be used as temporary windbreaks. Bamboo should be avoided for the purpose of permanent windbreaks, but bucare, guava, and guava trees are recommended.

* * *

In 1916-17 an outbreak of pellagra occurred among Armenian refugees in Egypt, and the matter was investigated by Mr. R. G. White, and his report published by the Egyptian Public Health Department. The weight of evidence pointed directly to a faulty diet as being a causal factor in the outbreak, as on correcting the diet the pellagra was eradicated. The consumption of maize meal, Mr. White considers, have been a factor in the causation of the outbreak, but only as far as it may have been responsible for some deficiency in the diet.

* * *

A sclerotinous disease of rice is described in the *Journal of Agricultural Research* (Vol. XXI., No. 9). The appearance of small areas of blighted or dead seedlings is the first noticeable sign of the disease in the field. These areas tend to follow the drill rows. No estimate of damage is known. It is stated that an apparently identical fungus was found growing on soy-bean plants at a neighbouring station farm where the soy-bean was being rotated with rice. If these are identical, there would be considerable danger in growing soy-beans as a rotation crop for rice.

* * *

In the raising of a horse the prime consideration is the amount of food required to grow the colt. This will vary somewhat with the kind and quality of the feed used, and also with the kind of horse dealt with, heavy drafters consuming more food than do horses of a lighter type. According to investigations conducted by Mr. M. W. Harper, of the Agricultural Experiment Station attached to the Cornell University, it requires 4,746 lbs. of grain and 6,804 lbs. of hay to grow a colt up to the spring when he is three years old and of an average weight of 1,270 lbs. This approximately is 2 tons 2 cwt. of grain and 3 tons of hay.

* * *

Nitrate of ammonia is mostly used in the preparation of explosives, and is usually prepared on

a commercial scale by neutralising the ammonia from cyanamide with nitric acid. A later development is to dissolve ammonia in a solution of nitrate of ammonia, further neutralisation being effected by diluted nitric acid, a saving in the cost of manufacture being thus obtained. Experiments carried out in Scotland recently with the use of nitrate of ammonia as a manure show that the results obtained were at least equal to those from nitrate of soda, nitrate of lime, and sulphate of ammonia. Indeed, there was evidence to prove that they were better. The disadvantage in the use of nitrate of ammonia for manurial purposes is its deliquescence. Experiments are, however, being made with its admixture with other substances, whereby it is hoped that the difficulty will be overcome.

* * *

One of the most striking examples of the benefit of rapid and frequent means of transport, says Mr. Rush in Messrs. Elders and Fyffes' *Banana Budget*, is that of the Canary Islands tomato business. Within a space of ten days, and frequently only eight, tomatoes can be picked in the Canaries and put on the breakfast tables at home in a condition equal to local grown fruit. For the most part, tomatoes in the Canaries are grown either by small holders or on what is known as the "halves" system, by which the owner of the land contributes the land and water, and either half or all the guano, whilst the labourer supplies farm manure and does the work of cultivation. The proceeds of the crop are then divided between the owner and the labourer. This system has many advantages, for the work, being light, is usually done by the man's wife and children, the man himself working on bananas and just putting in his Sundays or odd times on his tomato patch.

* * *

The value of tomato-seed cake as a food for live stock has been demonstrated by a series of experiments recently conducted in the protein investigation laboratory of the Bureau of Chemistry, United States Department of Agriculture. It has been previously estimated, says *The Fertiliser and Feeding-Staffs Journal*, by the department that over 2,000 tons of tomato seeds are wasted annually as a by-product in the manufacture of catsup and other products by the tomato pulping plants in the United States. Tomato seeds contain, approximately, 22 per cent. of a valuable oil. The cake which remains after expelling the oil contains 37 per cent. of protein, which chemical and nutritional experiments have shown to be of high food value. Young albino rats were fed on a diet in which tomato-seed cake furnished the only source of protein, the diet having been made adequate in other respects by the addition of other essential dietary factors. On this diet the rats were enabled to grow at the normal rate, showing that the proteins of the tomato seed contain all of the amino acids essential to the growth of animals. It was also found that the cake contains a sufficient amount of water soluble, or anti-beri, vitamin.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 62.)

Prince's Day in Barbados.

In the afternoon the Prince received the local veterans of the British West Indies Regiment, and congratulated them, to their evident delight, upon their prowess in France and Palestine; and then there was a garden party at Pilgrim, at which everybody who was anybody in official, parochial, mercantile and agricultural circles was present. The old house, residence of the Governors of Barbados since the second year of the reign of Queen Anne, when it was built for Sir Bevil Granville (who was very nearly assassinated whilst sitting at one of its windows), could never have looked down on a more animated scene. The ladies were attired in their smartest summer frocks, and as regards the men it was noticeable that the cult of the hideous black top hat was evidently on the wane in Barbados, as elsewhere.

After promenading the shady walks and lawns, which were so greatly improved during the régime of Sir Gilbert Carter, a landscape gardener of no mean ability, the company was drawn up in two lines. Then, so that all might see their Royal visitor, the Prince, now attired in multi, and wearing a large solar topee, walked slowly down to the end of the beautiful garden and back, accompanied by the Governor and Lady O'Brien, busily taking up his position in an enclosure, where the guests, who numbered from two to three hundred, were presented to him. Throughout the afternoon the proceedings were enlivened by the string band and pipers of H.M.S. *Calcutta*, whose anxiously awaited kilts had providentially arrived in the *Renown*. The pipers and their plaintive music naturally aroused much enthusiasm in an island where they are rarely heard. Indeed, they proved almost too much for that worthy son of Scotland, Mr. James J. Law, who was visibly moved by the skirl of his native instruments.

But the *clou* of this wonderful day was the Ball at the Public Buildings. No effort had been spared to make it the success it undoubtedly proved to be. The stately edifice was gaily decorated for the occasion, the trees in the garden separating the two blocks from each other being sprinkled with red, white and blue electric lights which, when viewed from the balcony, presented an enchanting spectacle.

From nine o'clock onwards for nearly two hours an endless string of motor-cars, admirably controlled by the police, deposited an incessant stream of guests at the entrance and passed on into the darkness; and beyond the gates one could see a surging mass of black faces, intent on viewing the Prince and the brilliant assemblage of local celebrities. Many of the good people of Bridgetown can never have gone to bed at all that night. But this was excusable, for Barbados had never before been honoured by a visit from an heir to the throne.

Dancing began late, for the official dinner at Government House took longer than was antici-

pated, and it was not until 10.30 that a burst of cheering heralded the arrival of the Prince. Then dancing began in earnest to the strains of the *Calcutta's* band, which was perched up in a temporary minstrels' gallery, cunningly erected over the door. One-step, waltz and fox-trot succeeded one another with hardly a pause. The Prince danced with characteristic enthusiasm, choosing, among others, as his partners, Lady O'Brien's charming little girls and the daughters of Mr. and Mrs. S. S. Phillips and Mr. and Mrs. E. E. H. Thorne, who were the recipients of many congratulations in consequence. The Barbadians danced with fervour, and the English visitors, of whom quite a few were present, not to be outdone, did likewise. At times it was hardly possible to walk, much less dance, round the ball room; but for those whose dancing days were over, solace was provided in the Clerk of the House of Assembly's office, where one of Greenidge's satellites dispensed an inexhaustible supply of light refreshments. There the topic of conversation was the Prince's tactful and emphatic pronouncement earlier in the evening that the King's subjects, "whether white or otherwise" (that was the version we heard at the time), were "not for sale"—an effective reply to some irresponsible politicians in America, and, to their shame be it said, a few Little Englanders in the Old Country, who had been trying to create an atmosphere in favour of Great Britain handing over her West Indian possessions to the United States in settlement of her war debts.

In due course an excellent supper was served in the Chamber of the Legislative Council. To this the writer was doing ample justice when the clock struck twelve. At that witching hour he was compelled, like Cinderella, reluctantly to withdraw from the gay scene, having been ordered to report himself on board the *Calcutta* at midnight. His ears were still ringing with such haunting melodies as "Bubbles," "Beautiful Ohio," "Tell Me," and "Peggy," as with his gallant Admiral-host he made his way through the crowds (still waiting for a glimpse of their Prince) to the careenage, whence a launch took him over the placid waters of the Bay towards the beckoning lights of the *Calcutta*, which was to be his home for the next fortnight.

Prince's day in Barbados will be spoken of for many years to come. In the West Indies the old-time custom of dating occurrences from some notable event—such as the abolition of slavery, the hurricane, and the fall of May Dust—still prevails, and it is very certain that "the day the Prince came" will be for Barbados one of the milestones on the dusty road of Time. It was certainly one of the greatest days in the history of the Island "since Barbados became a world," as one Badian put it.

For long after March 26th the local Press discussed the Royal visit from every point of view, and the following alphabet, which appeared in the *Barbados Advocate*, struck me as having caught the atmosphere of that historic occasion to a nicety:

A— Was the Arch which was built for the Prince;
 Like a Phoenix it rose, and we've stared at it
 since.

- B**—Were the 'Badians, black, white, and brown,
Who combined for this once, just to honour the
Crown.
- C**—For *Calcutta*, her match can't be found,
As escort she proved that she knew her way
round.
- D**—Were the dances that H.R.H. had
With some of the pretty ones (*were'n't* the rest
mad!).
- E**—Were the Equerries standing in rows,
Greatly admired because of their clothes.
- F**—Were the flags (*some* were flown upside down),
But one cannot have everything, even in Bridge-
town.
- G**—Was our Greenidge*—give nothing without him—
Highly honoured by Princes, he's a great air
about him.
- H**—Was H.E. who gets cheers and applause
For working so well in a right Royal cause.
- I**—For the Invites we all hoped to get;
Some got them, but others are waiting them yet.
- J**—Was for Jealousy, that green-eyed beast,
He got there all right, I saw *him* at the feast.
- K**—Were the Kisses we'd all like to have given
To someone whose name from my lips shan't be
riven.
- L**—Was the Loyalty rampant that day;
It's here all the time, those who know always say.
- M**—Were the M.C.P.s† in their best clothes,
So highly important, as everyone knows.
- N**—Stands for Noble,‡ of course he is that;
But I mean the Captain, and off goes my hat.
- O**—The Obeisance the ladies all made;
Let's hope this will soon from my memory fade.
- P**—For Police—I heard something most strange.
What! No abuse afterwards?—quite a nice
change.
- Q**—For the Question we've heard ever since:
"How many times did you speak to the Prince?"
- R**—Well, I know you will all guess this letter—
Renown! Yes, you're right, and there isn't a
letter.
- S**—Was the shaking of hands which the Prince did;
As I heard a Yank mutter: "He surely is some
kid!"
- T**—For the Telephone rings day and night,
"Does anyone know if the Prince is in sight?"
- U**—For the U.S.A., who got a slap—
"No islands for sale in this part of the map!"
- V**—Were the Volunteers, somehow one missed 'em;
What's happened to Hancock?§ He'd surely
have cussed 'em.
- W**—For Wishes. Long Life and Good Luck
To the Prince, whom the ladies all vote as a
"duck."
- X** For Expenses—the less said the better;
So hang 'em, as stupid things not worth a letter.
- Y & I** will leave these two letters alone;
- Z**—They might spoil my poem and ruin its tone.

Westward Ho! to Panama.

The next stage in my tour—the voyage from Barbados to Panama—was accomplished under the most pleasant auspices. The *Calcutta* was a

"happy ship," and a following wind contributed greatly to our comfort as we raced over the sparkling waves of the Caribbean Sea in the wake of the *Renown*.

My first experience of life in one of His Majesty's ships was gained in the destroyer *Bat* as the guest of Lieutenant, now Vice-Admiral Sir Roger, Keyes, of Zeebrugge fame, during the Naval Manœuvres of many years ago. Then, owing to the exigencies of space, my quarters consisted of a storeroom aft. Now, in the *Calcutta*, the captain's suite was at my disposal, its rightful owner, Captain Percy Noble, sleeping in his sea cabin under the bridge, since we were escorting a Prince of the Blood.

The time passed all too quickly, for there was much to interest one in such new surroundings—the morning and evening quarters when (deck space being limited), at a sharp word of command "Open ranks—march" from the "Soldier," Captain Williams, each of the scuttles of the Admiral's cabin framed the ruddy face of a "Jolly," an occasional gun drill, visits to the engine room (which was generally a prelude to a delightful splash in a huge sail bath, followed by a run round the quarter-deck), and to the bridge with its gyroscopic compasses, range finders and gadgets innumerable, a never-ending source of wonderment—all of which has been described to perfection by "Bartimeus," who was one of my shipmates.

Admiral Everett was also an excellent raconteur, and we had many serious talks on the West Indies and their problems, in which officers on the West Indies Station, who are occasionally summoned by an "S.O.S." to quell some foolish disturbance in the islands, take a far greater interest than is generally supposed.

The Southern Cross was fading away at the approach of dawn on Tuesday, March 30th, when we steamed in under the lee of the long breakwater which protects Limon Bay. There we lay for a time while compliments were paid to the flags of the United States of America and the Republic of Panama—the latter of which National emblems the Chief Yeoman of Signals, like Smee in "Peter Pan," had been diligently cutting out and stitching together with a sewing machine overnight.

We were still in a sea of muddy water. Away to port were the low buildings, wharves and cranes of Colon and its American suburb, Cristobal. These sister towns stand on Manzanillo Island, which those three intrepid pioneers, Aspinwall, Chauncey and Stevens linked with the mainland and the Pacific as far back as 1850, when the Isthmus was the unhealthiest place in the world with its pestilent and reeking swamps and myriads of mosquitoes.

Before us lay Panama, a country steeped in romance and awakening inevitably in the mind tales of fever and of disease, of treasure and of buccaneers and pirates weltering in blood, the terror of the Spaniards who were wont to carry the riches of Peru from Panama on their mules through forest and jungle to the Chagres River, to be shipped thence to Porto Bello and Cartagena, where it awaited the sailing of the Flota to carry it to Spain.

(To be continued.)

* The ubiquitous servant of the Colonial Secretariat, C.S.

† Members of the Colonial Parliament.

‡ Captain Percy Noble, C.V.O., R.

§ Captain D. L. Hancock, Staff Officer.

JAMAICA GOVERNORS.

By FRANK CUNDALL, F.S.A.

IX.—Sir Hender Molesworth.*(Continued from page 59.)*

He told the Assembly a little later :—

"A great deal of time has fled away to no purpose, so I am resolved to consent to no more superfluous adjournment. You have passed a vote for raising the money, but have proposed no effectual way for raising it. You will find no plan so good as to secure our estates by our estates. It will be in the nature of insurance, and I reckon that what is now required of you does not exceed five shillings for every hundred pounds' value of our real estates. So if you intend to raise the money, set about it heartily; if not, tell me, that I may know what to do. I have done my duty, and if you fail to do yours the opposers of it will be answerable for any innocent blood that may be spilt on occasions that might have been prevented. I wash my hands of it."

In August he wrote :—

"The Assembly having made some other proposals to raise the money, wherein they took care to save themselves, I told them plainly that I would agree to no other method but taxation of themselves, and desired them to put it at once to the vote whether they would tax themselves or not. They agreed to do so, but only by the vote of the chairman; but next day, when the adverse party was strengthened by the votes of a member or two who had been sick on the previous day, they did all they could to confound that vote. When therefore it was put to the question, upon what the tax should be laid, the majority were for a tax on land, to be reckoned by the acre, hoping that, the method being so unfair, it would never pass. The difference in the value of land is so great that, while some is worth 20*l.* an acre, other is not worth half-a-crown. I prorogued them to the 16th September, giving time to those who live at the greatest distance to consider their interest, so that the business at the next meeting will be very short. I intend that they shall either raise the money on themselves by some equal tax or leave all else undone, for I do not mean them to proceed either with Negro Bill, which is so necessary for them, or any other business, till that be done. Two public and three private Acts have been passed, which I shall probably send home by next ship."

On dissolving the Assembly in September he said :—

"I had intended to sum up to you your whole proceedings up to this day, but your own minutes are sufficient to show my integrity towards you, and your own unsteady and double dealing. I shall only remind you that you have all of you acknowledged the necessity of raising the money required and voted that necessity unanimously, but have since been so cautious not to affect yourselves therewith that you have omitted nothing, however unreasonable, to ease yourselves therein, and would resolve upon nothing that might burden yourselves. You have been so fickle and inconstant that nothing was to be depended on from you. You have on several occasions voted one thing one day and contradicted it the next, so that your whole proceedings have been nothing but a confused medley of contradictions. Never was the venerable name of Assembly so dishonoured as at this time. All things have been carried not by strength of argument or reason, but by noise and number of voices, led by malice and followed by ignorance. Since, therefore, your whole aim seems to be to take some

little care of yourselves, but none of the poor people by whose labours and hazards you have so long slept in security, or of the generous persons who voluntarily advanced money for your service, I do in the King's name dissolve you, and you are hereby dissolved."

In February, 1687, Molesworth wrote to Blathwayt :—

"On the 28th January, Captain Spragge returned to Port Royal having succeeded in the task that I assigned to him, with Captain Banister and three of his consorts hanging at his yardarm, a spectacle of great satisfaction to all good people and of terror to the favourers of pirates, the manner of his punishment being that which will most discourage others, which was the reason why I empowered Captain Spragge to inflict it. Banister seemed to have no small confidence in his friends. I find from letters that he wrote to some of them that he intended to plead that he had been forced into all that he had done by the French. How far this would have prevailed with a Port Royal jury I know not, but I am glad that the case did not come before one. There are a dozen or so more of this gang under one Kelly, who are gone up the river Nicaragua, and are expected back at the Mosquitos. They will probably be seized by the Indians and sent here in one of our turtling sloops. The Indians owe a great reverence for the King of England, and would not help Captain Spragge until he had shown his orders and given them written directions how they were to act. Captain Spragge brought other prisoners with him, who have not yet been tried. One of Banister's men was shot dead for refusing to surrender, and two boys who were with him, under compulsion it seems, I have pardoned."

In April, 1687, Molesworth wrote home that the Governor of Providence wished to be annexed to the Jamaica Government. He adds :—

"Should Providence be made a new settlement it may become very injurious to us, though less so if under our jurisdiction. I am told that there are about three hundred people dispersed among those islands who could all unite at Providence if the government were there settled."

In the same letter he says :—

"Piracy has never received such checks as I have given it in the last few months, nor have we ever been so free as lately from such vermin."

In September, John Williams (better known as Yankee) and Jacob Everson, two notorious pirates, offered to surrender themselves to the British Crown at Montego Bay, but they would not agree to all the terms, including the breaking up of their ships.

In December, one James Wall came as deputy (to Lord Rochester) as Postmaster of the Island, and at once commenced office by demanding 7*½*d. for every letter brought by the ship in which he arrived!

(To be continued.)

MR. ARTHUR W. FARQUHARSON is expected to visit England shortly to confer with The West India Committee, the Royal Colonial Institute, and the British Empire Producers' Organisation, regarding the position of the Jamaica sugar industry, which is regarded as serious in consequence of recent tariff legislation in the United States. After visiting London, Mr. Farquharson proposes to return by way of Canada, so that he may similarly have the opportunity of interviewing Canadian Ministers on the subject.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbados' New Parliament.

The beginning of the New Year brought very little rain, and some fields have been observed starting to turn yellow. In the red and black soils the 1923 crop has been planted. A satisfactory crop of cotton, which is now being picked, is expected. At a meeting of the Agricultural Society on December 30th, Mr. W. A. Kirton took exception to a statement made by Mr. J. R. Bovell, the Director of Agriculture, to the effect that the cost of production of sugar in Barbados before the war was 2.58 dols. per 100 lbs., or 58 dols. per ton, against 22.35 dols. to 24.24 dols. in Cuba, says the *Agricultural Reporter*. Mr. Bovell having maintained that the figures given by him were correct, after a lively discussion the matter dropped. The following sixteen members of the St. Michael's Vestry have been elected for the current year: Washington Harper, J. S. Maughn, J. Beckles, V. B. C. Hart, O. R. Granum, C. H. Kinch, N. A. Bullen, W. C. Haynes, H. A. Smith, Dr. J. H. Dixon, L. S. Skinner, J. H. Murphy, W. Brandford, W. E. Reece, W. D. Bayley, and C. A. Brathwaite. Mr. V. Hanschell, Consul for Denmark, the Netherlands, Mexico, and Panama, has been elected Dean of the newly-formed Consular body, of which Mr. Watson, the United States Consul, is Honorary Secretary. Voting took place on January 9th for two members to represent St. Michael's Parish in the House of Assembly. Mr. G. Clyde Williams and Mr. Peter Patterson were elected, the unsuccessful candidate being Mr. V. B. C. Hart. Mr. James Sanderson, the sheriff, announced that in view of his coming retirement this would be the last election at which he would preside. On the following day the Legislative Session was opened. In the course of his opening address the Governor deplored the present financial condition of the Colony, due partly to last season's drought. A considerable deficit was anticipated at the close of the financial year, and it was calculated that at the end of March the Government would be indebted to the banks to the tune of £80,000. Of this £58,000 was attributable to sugar having been bought and sold retail to consumers at below market price. A proposition to stabilise the Colony's finances would be put in front of the House, possibly taking the form of a loan. Turning to the Income Tax Act which had been passed, His Excellency said that time had not permitted the passing of a Bill to settle the schedule or ratio of tax to be charged. The establishment of the West Indian Agricultural College, which was now in actual existence as an organisation, though not yet in operation as an educational centre, was a real landmark in West Indian history. Its success, for which all heartily wished, would depend on the support and co-operation of all the West Indian colonies. On this support he felt sure the Governing Body could rely.

The following is the composition of the new House of Assembly:—City of Bridgetown: Messrs. H. B. G. Austin and C. W. Haynes; St. Michael: Messrs. G. C. Williams and Peter Patterson; Christ Church: Hon. Sir Frederick James Clarke, K.C.M.G., and Mr. G. S. Evelyn; St. George: Dr. N. L. Boxill and Mr. S. S. Roblison; St. Philip: Messrs. E. B. Skeete and H. A. Bovell; St. John: Mr. G. D. Pile and Dr. W. Briggs Clarke; St. Thomas: Messrs. C. S. Thorne and C. H. Wright; St. James: Mr. C. B. Austin and

Dr. E. G. Pilgrim; St. Peter: Hon. C. P. Clarke, K.C. (Attorney-General) and Mr. J. D. Chandler; St. Lucy: Mr. H. W. Reece, K.C. (Solicitor-General) and Dr. W. H. B. Massiah; St. Joseph: Messrs. H. G. Yearwood and G. C. Williams; St. Andrew: Messrs. E. I. Baeza and E. L. Skeete.

The Hon. Edward Wood, Major Ormsby Gore, and Mr. R. A. Wiseman arrived at Bridgetown on January 13th in H.M.S. *Valerian*. The *Standard* mentions the following as being present at the Harbour to receive them: His Excellency the Governor, the heads of Government Departments, members of both Houses of the Legislature, members of the Vestry, and a few members of the Judiciary, the Consular body, Sir Francis Watts, K.C.M.G., Canon Dalton, D.D., Professor D'Albuquerque, his Lordship the Bishop, Sir Herbert Greaves, Lieut.-Col. M. D. Harrel, Capt. H. B. Shepherd, W. Bowring, Lieut. Swinley, R.N., the Marquis of Salisbury, Lady Dorothy Wood, and Lady Ormsby Gore. The following day Major Wood met members of the Chamber of Commerce at the Commercial Hall, when he was addressed by Mr. H. B. G. Austin, President of the Chamber, who spoke on the state of the sugar industry and on the need for improved telegraphic and steamship communications, dealing also with the questions of currency and freight rates. The last subject was also referred to by Mr. V. Hanschell. On January 17th Major Wood and his party, accompanied by the Governor and his A.D.C., went on a tour round the island, visiting Turner Hall Wood, the British Union Oil Company's works at Springfield and Bathsbeba, St. John's Church, Codrington College, and Dodds and Summerville Government Industrial School. On January 18th they left for Grenada.

British Guiana and Sir George Foster.

Mr. J. V. Fitzpatrick, writing on January 9th, states that the sugar industry is in a very depressed condition indeed, and it is expected that the announcement will shortly be made public of the liquidation of three of the smaller estates, to be followed possibly by other estates in the near future if early Government assistance is not granted. A deputation laid the case of the Sugar Planters' Association before the Governor, urging *inter alia* the "doubling of the preference" in the United Kingdom for five years. The flying boat "Chagnaramas," piloted by Major Cochran Patrick, met with a severe mishap on December 22nd, below the Kurupukari Falls. The accident was due to the seaplane striking a submerged rock whilst getting up flying speed, after descending to replenish petrol supplies.—Sir George Foster left the Colony on January 10th, after a four-days' visit. He expressed himself as delighted at renewing his impressions of Demerara.—Claims amounting to 61,400 dols. have been filed as the result of the accident on the Demerara Railway on November 20th.—The death is recorded, after a week's illness, of Mrs. Constance Smith, daughter of Mr. T. S. Cornish, consulting engineer to Booker Bros. & Co. The Hon. M. Nascimento has been re-elected Mayor of Georgetown for 1922. Mr. J. B. Cassels, M.B.E., has been elected to membership of the Council of the Georgetown Chamber of Commerce, in place of Mr. A. B. Sherlock, who has resigned. Canon A. M. B. Jemmott has resigned the living of St. Philip's, Georgetown, to take charge of the Parish of St. Paul, Bridgetown, Barbados. Canon Jemmott arrived in the Colony in 1891.—An alligator 6½ feet long, and claimed to be 300 years old, has been captured in the Lamaha Canal. On its captor, "Professor" Pile, giving the

cayman call, the beast swam towards him and was secured.

Dominica seeking Defederation.

Leaving Antigua on January 4th, H.M.S. *Valerian* arrived at Roseau the next day, having sailed via Montserrat. Major Wood was met by His Honour the Administrator, who presented to him the members of the Legislative Council, heads of Departments and others. After Major Wood had inspected a guard of honour formed of members of the Police Force and the Defence Force, Mr. A. Welby Solomon read an address of welcome from the members of the Roseau Town Board. On January 5th the Under-Secretary of State was handed a petition praying the King for an emendation of the Island's Constitution, and for severance from the Leeward Islands Confederacy. It was asked that the Legislative Council should be composed of the officer administering the Government as President, five official members, five nominated unofficial and five elected members, and that there should be a measure of representation on the Executive Council. Major Wood and his party paid a visit to the Imperial Road, and left the Island on the 8th.—The price quoted by Bath Estate for fresh lime juice is 5d. per gallon, and limes at 3s. 4d. per barrel.—The death is announced in the *Dominica Chronicle* of Mr. C. A. Hurton, the Provost Marshal.

Grenada Officials' Salaries.

At a joint meeting of the Agricultural and Commercial Society and of the St. Andrew's Agricultural Association on December 14th, Mr. H. A. Berkeley, O.B.E., presiding, the matters to be put before Mr. Wood on his visit to the island were settled, a committee consisting of Mr. T. A. Marryshow, Mr. H. Yearwood, and Mr. G. A. De Freitas being appointed to put the resolutions into shape. They included such questions as an Imperial loan, increase on the preferential rate on cacao granted by the mother country, reduction of the local export duty on cacao, and improved steamship facilities.—The question of officials' salaries provoked a stormy meeting of the Legislative Council on the discussion of the estimates. Mr. Harford having moved that all salaries should be put back to the basis of 1914, Mr. De Freitas favoured taking off the increases on all salaries of over £300 by stages. Eventually, after a threat of resignation on the part of the unofficial members, the Governor agreed to send a telegram to the Secretary of State worded as follows: "Owing to the present financial position of the Colony retrenchment in expenditure is essential. Unofficial members unanimously urge saving of £1,600, to be effected by 12½ per cent. reduction of additional salaries granted this year to officials over £300. While I am aware that cost of living to officials is still 33 per cent. above pre-war days, and the reduction will be hard on them, at the same time I admit that some reduction is necessary, and suggest 10 per cent. decrease."—Three new solicitors have been admitted to practice in the Colony, Mr. S. J. Bain, Mr. A. O. Payne, and Mr. John B. Renwick. Mr. Payne was chief clerk of the late Hon. W. S. Commissiong. Mr. J. B. Renwick is brother of Mr. C. F. P. Renwick.—The death is recorded in the *West Indian* of Miss W. L. Commissiong, eldest daughter of the late Hon. W. S. Commissiong.

Jamaica's Preferential Tariff.

The total rainfall for last year was 25.9in., the average for 11 years being 33.59in.—The principal

reason for calling together the Legislative Council, which met in special session on December 6th and adjourned *sine die* on the 9th, was to pass a Bill providing for a preference on importations from Canada, as promised under the Canada-West Indies Trade Agreement. The Bill in the form presented, however, met with a great deal of adverse criticism, and was rejected on the second reading, a resolution being carried unanimously to the effect that the withdrawal of the Bill was due to shortcomings in the Bill itself, and the promise was made that a revised Bill giving effect to Canadian Preference would be introduced through the Council at an early date.—A proposal to abolish the Kingston City Council, the St. Andrew Parochial Board, and the Kingston General Commissioners, and establish in their place a Municipal Corporation for Kingston and St. Andrew was also brought forward, and a law to bring this into effect introduced. A scheme, in some form or other, for amalgamating Kingston and a portion, if not all, of the Parish of St. Andrew, is likely to be carried through eventually.—The financial position of the Island is giving a great deal of concern, and the framing of the 1922-23 Budget is likely to be a difficult matter. It is rumoured that, after making preliminary cuts in every possible department, there is likely to be a deficit of £158,000. Official figures are not yet available, but it is evident that, owing principally to the position of the sugar industry, the revenue will be very much smaller than usual.—The death occurred on the 8th of Mr. J. C. Ford, late Superintendent of the Jamaica Government Printing Office.—Mr. James Hutchinson has been lately in charge of the local office of the West India Electric Co., of which he is president, during the absence on leave of Mr. D. N. Barr, the manager.—Lady Cordeaux, wife of the Governor of the Bahamas, has been making a stay in the island.

Mr. Edward Wood in St. Kitts.

Mr. E. J. Shelton, writing on January 6th, states that the Hon. Edward Wood, Under-Secretary of State for the Colonies, arrived in St. Kitts on December 30th on H.M.S. *Valerian* from Jamaica. On the following day at the Administrator's Office deputations were received representing (1) the St. Kitts-Nevis Universal Benevolent Association; (2) the St. Kitts Representative Government Association; (3) inhabitants of Nevis; (4) the Agricultural and Commercial Society, the deputation in this case consisting of the five unofficial members of the Legislative Council. Some disappointment was expressed that these interviews were not thrown open to the general public. The reforms urged by the Agricultural and Commercial Society included the following: Separation of the Presidency of St. Kitts-Nevis from the Leeward Islands Confederation; modification of the use of the casting vote of the President of the Legislative Council, especially in matters affecting expenditure of public money; more local representation by increasing the number of officials and unofficials by two in the Legislative Council; reduction of expenditure by the amalgamation or abolition of public offices when opportunity offers; larger and more permanent preference on colonial sugars should be granted by Great Britain, say on the lines of the Canadian agreement; financial assistance to agriculture by means of the establishment of an agricultural bank. Provided that relief were granted in respect of the first two of these representations, the Society was of opinion that the franchise was not essential for the progress of the colony at the present time. The question of a mail service

was not brought up, on the ground of the expenditure required.—The Canadian Squadron, consisting of H.M.C.S. *Aurora*, *Patriot*, and *Patrician*, paid a further visit to the Presidency from December 30th to January 3rd, and the "At Home" and Dance given by His Honour the Administrator and Mrs. Burdon at Government House in honour of the occasion were much appreciated.—Mrs. J. R. Yearwood, of Belle Vue Estate, died on January 6th, after a long illness. Canadian born, Mrs. Yearwood had made many friends during her life in the island, and was highly esteemed by all.—General satisfaction is expressed at the appointment of Mr. D. H. Semper to the Magistracy of District C.

Mr. Wood in St. Vincent.

Mr. Percy W. Verrall, writing on January 14th, says:—The Parliamentary Under-Secretary of State for the Colonies, accompanied by the Hon. W. Ormsby-Gore and Mr. R. A. Wiseman, arrived in St. Vincent on January 11th, in H.M.S. *Valerian*. His Honour R. Popham Lobb, C.M.G., Administrator, went on board to receive the distinguished visitors, who landed at about 9.30 a.m. Gathered on the jetty were the honourable members of the Executive and Legislative Councils, heads of Departments of the Government service, and although the hour was an early one, a great many of the leading citizens and representatives of the general public, who accorded the visitors a very hearty reception. The jetty and buildings in Kingstown were gaily beflagged, as was also the route to Government House, to which Major Wood drove, after introductions had taken place. The next day (Thursday) Major Wood gave private interviews to the following deputations: the Citizens Committee; Interim Committee of Management of St. Vincent Chamber of Commerce and Agriculture; Committee of Estate Owners; Directors of the St. Vincent Agricultural Credit and Loan Bank. The last mentioned endeavoured to impress on Major Wood the desirability of loans to peasants, and extension of the peasant proprietary system. The Citizens Committee presented Major Wood with an illuminated address in the form of a scroll, which bore at the head the arms of St. Vincent, on the right hand side a view of Fort Duvernette, and on the left the Carnegie Library, whilst along the bottom was neatly executed a portion of the coastline of St. Vincent, showing Fort Charlotte and the harbour entrance, the handiwork of Miss M. Richards, and the souvenir was admired by all. On January 13th fifty gentlemen sat down to a luncheon prepared in honour of the visitors, and the Ven. Archdeacon Caspar Downie proposed the health of Major Wood, Mr. Ormsby-Gore, and Mr. Wiseman in a very interesting manner. Major Wood in reply expressed his satisfaction at being able to make the visit with his colleagues and obtain first-hand information from the West Indies, and stated that such a tour must be productive of good, for they would see and meet men who would express opinions and form deputations, so that when matters pertaining thereto were brought up in the Colonial Office, they (the visitors) would be able to say "we have met and know those men, and what they stand for is good, and you will not go far wrong if you support anything backed by them." He counselled his hearers not to expect Utopia the day after to-morrow as a result of their visit. After the luncheon the visitors went for a drive in the country, where at different points Major Wood had other addresses presented to him, and had to make unexpected replies. Thanks are due to Mr. C. B. F. Richards, chairman of the Citizens Committee, who was tireless in his efforts

to make satisfactory arrangements for the proper reception of the party. After dinner at Government House, the *Valerian* sailed at midnight for Barbados, and the visit of the Under-Secretary of State, which will be long remembered by the loyal inhabitants of this colony, was brought to an end.

Tobago and the New Governor.

Writing on 12th January, Mr. Robert S. Reid states that the Tobago Planters Association have arranged for a deputation to wait on Mr. Wood in Trinidad, as there is little prospect of his coming to Tobago. They will meet the new Governor at the same time, and will do their utmost to arouse his interest in the Island.—The cool sunshine of the dry season is now being experienced, and in some cool inland valleys the thermometer stands not much higher than 60 at night time, and rugs and blankets are in demand.—Work has fairly started for the new year, but one hears of reduced pay and rigid economies in the labour list on account of the low prices for produce. The workers are encouraged to cultivate their provision gardens, which most estates provide, and there need be no actual hardship to the industries, but one would like to see a trade revival and peaceful times the world over.

Trinidad and The Hague Rules.

Mr. Alick G. Hamlyn, writing on 17th January, states that the Attorney-General, accompanied by Mrs. Warner, left for the Continent by the *Stuyvesant* on 3rd January, on six months vacation leave. Sir George Foster, ex-Minister of Trade and Commerce in the Canadian Government, was welcomed by the Trinidad Chamber of Commerce at a special meeting held on the 9th January. Sir George, who has visited the West Indies before, gave an interesting address in which he strongly maintained that existing facts and circumstances gave assurance of a revival of trade generally, and especially of large development of commerce between Canada and the West Indies.—On the 12th January, at an ordinary general meeting, the Chamber of Commerce considered the matter of pilferage of cargo in transit by sea, and approved of The Hague Rules, 1921. The Committee informed the Chamber of the arrangements it was proposed to make for the entertainment of the delegates to the meeting of the Associated Chambers of Commerce to be held here this month.—On 13th January, the Legislative Council repealed the ordinance recently passed establishing a moratorium for mortgages on plantations, and enacted another which is designed to give similar protection to mortgagors without dealing quite so drastically with the rights of mortgagees.—On 14th January, the new Governor, Colonel Sir Samuel Wilson, R.E., K.B.E., C.B., C.M.G., arrived by the Elders & Fyffes steamer *Coronado*, landing at 10 a.m. He was met by leading Government officials and by the Mayor of Port of Spain, who presented an address of welcome. After inspecting the Constabulary Guard of Honour, His Excellency drove to Government House, St. Ann's, where they were received by Guards of Honour composed of Boy Scouts and Girl Guides. Lady Wilson and Miss Wilson were presented with bouquets on behalf of the Consular Body by the Misses Fraser, daughters of the Hon. Alexander Fraser, Deputy-Dean. The new Governor was sworn in at noon at the Red House, and was afterwards presented with addresses from the Unofficial Members of the Legislative Council, the Chamber of Commerce and the East Indian Community.—The weather has been much drier and cooler since the beginning of the year.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes Ltd.

Sailings to Jamaica, from Avonmouth in s.s. *Changinola*, February, 7th:—

Mr. N. A. Bergam	Miss M. E. Hardy	Mr. M. Wolryche
Mr. J. Hilton Crowther	Mr. Neil Kenyon	Whitmore
Mr. C. Dewhurst	Mrs. W. M. Prouse	Mrs. M. Wolryche
Rev. R. N. Dickson	Miss E. Picton	Whitmore
	Turberville, O. R. E.	

Home arrivals from Jamaica in s.s. *Coronado*, Avonmouth, February 6th:—

Mr. & Mrs. A. J. Allen	Mr. & The Hon. Mrs. H. C. M. Daniell	Mr. E. Hancock
Miss M. K. Allen	Mr. T. H. Davies	Miss A. M. Roberts
Admiral Sir Lewis Bayly, K.C.B., K.C.M.G., C.V.O.	Miss D. E. Dymott	Mr. & Mrs. J. R. Thoms
Mrs. C. Coles & son	Miss Z. E. Facey	Miss M. A. Voysey
Mr. V. Craiz		Mr. J. H. Warren
		Miss C. Whitehead

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Specialist*, February 4th:—

Miss E. H. Burt	Mrs. Delany	Miss O. E. Rose
Mr. & Mrs. R. V. Butt	Mr. W. P. Humphrey	Mr. P. S. Staley
Mr. R. A. Davidson	Rev. & Mrs. W. G. Kimber	Mr. R. G. Taylor

Home arrivals from West Indies, in s.s. *Intaba*, London, January 24th:—

Dr. J. Anderson	Miss E. H. Gravely	Mr. Plumer & fam.
Mr. F. Alcock	Mr. H. S. Hurton	Mr. J. A. Robotham
Mr. H. G. L. Bond	Mr. Johnson & son	Mr. S. St. Clair
Mr. A. E. Bratt	Mrs. E. E. Johnson	Springer
Mr. & Mrs. Dakyns	Mr. W. Mackay	Miss M. L. Sparway
Mr. & Mrs. T. Dunlop	Mrs. Macpherson	Mr. R. Strang
Archibald Farquhar	Mr. A. McEwan	Maor & Mrs. Waldegrave & fam.
Mr. A. Gee	Mr. P. G. Noott	Mrs. J. L. E. Wilson
Mr. H. C. Gee	Major W. P. Pigott	

Royal Netherlands West Indian Mail.
Sailings to West Indies, from Dover in s.s. *Stuyvesant*, February 11th:—

Lady Brisco	Miss G. Hixon	Mr. J. A. M. Scobie
Mr. A. Emlin	Mr. Jennings	Mr. W. Sammiquel
Sir H. M. & Lady Pitt-Herbert	Mr. G. L. Matthews	Mr. Verin
Mr. & Mrs. J. Gench	Mr. A. Mustard	Mr. & Mrs. A. K. Wallenberg
Mr. J. A. Goodwin	Miss J. M. Price	Mr. P. Williams
Mr. W. E. Goodwin	Mr. & The Misses (2) Rook	

Home arrivals from West Indies, in s.s. *Van Rensselaer*, Plymouth, January 31st:—

Mr. M. Alessi	Mr. A. Emlin	Mr. H. Silverman
Mr. A. Bizzell	Mr. J. A. Goodwin	Mr. & Mrs. Stanley
Mr. H. C. Chandler	Mrs. S. E. Harding	Mr. D. A. Sutherland
Miss Linda Coren	Miss A. Jeffers	Mr. M. A. Tink
	Mr. James Latcher	

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
Jamaica	Liverpool	Napierian	Feb. 18
Jamaica	Liverpool	Mansanara	20
West Indies	London	Intaba	24
B'dos & T'dad	Liverpool	Asian	25
B'dos, T'dad & D'ara	Dover	Van Rensselaer	25
Jamaica	Bristol	Patuca	27
Jamaica	Bristol	Camito	27

T'dad D'ara & St. Lucia	St. Nazaire	Puerto Rico	Feb. 22
West Indies	New York	Maravat	Mar. 14
B'inas, Jacu & B. H'das	Halifax	Canadian Forester	17
West Indies	Halifax	Chignecto	17
Bahamas	New York	Orizaba	18
Cruise	New York	Megantic	18

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates, have been kindly supplied to The West India Committee by the respective Governments.

	Anti-goa. To Nov. 30	Bar. lades. To Dec. 31	British Guiana To Dec. 22	British Honduras To Dec. 31	Domi. To Nov. 30	Grenada. To Nov. 30	Jamaica. To Dec. 31	Mont. seriat. To Oct. 31	St. Lucia. To Dec. 31	St. Kitts. Nevis. To Dec. 31	St. Vincent. To Sept. 30	Trinidad To Dec. 31
Arrowroot	1,407,936	...
Appalt	12,263
Balete	1,269,150	42,806	2,344	9,949,460	2,816	...	...	...	...	2,647
Bananas
Bananae	12,384	...	...	...	...	...	...	...	...	...
Bitters
Cacao
Cassava
Cassava Starch
Coco-nuts	2,735,179	7,259,908	274,596	9,964,732	23,423,135	125,358	1,384,667	121,890	122,963	75,729,138
Coffee	325,960	...	407	332	7,127,424	...	171,650	...	134,314	...
Copra	87,751	190,137	...	17,762	1,370,252	...	33,479	...	...	...
Cotton, M. Galant	829,720	...	...	...	...	...	...
Cotton, Sea Island	80,780	92,481	...	...	...	711,312	...	302,065	5,599	747,796	430,732	...
Cotton Seed	646,123	12,607	704,480	149,443	...
Diamonds	95,317	...	...	...	...	...	...	...	...	...
Dyewoods
Ginger	2,250	...	...	...	170	...	...	...
Gold	10,114	...	...	...	...	...	...	...	188,858	16,430
Ground Nuts	2,576	9,306	...	...	...	...	...	...	...
Honey	160,750	1,900	...	...	...	...	...	...
Lime Juice (raw)	202,600	9,236	...	...	...	...	...	...
Lime Juice (conctd.)	7,475	...	...	...	...	...	...	...
Oil	999,489	150	...	...	...	...	...	...
Lime (citrate of)	49,161	...	...	...	...	...	...	...	...	...
Logwood	760	...	...	...	...	...	...	...	...
Lyamher	160,522	...	164,901	15,053	...	...	...	...	...	10,803
Mahogany	8,005,444	...	2,049	...	...	...	...	...	...
Macjak	...	109	...	...	...	...	...	...	...	...	...	...
Molasses	107,300	4194,471	204	...	...	199,546	...	...	...	...	...	...
Oranges	7,000	...	...	69,172	286,520	2,998	...	...	...	...	...	...
Essence of Oil
Petrolesin
Pimento
Rice	6,306,327	...	...	...	...	...	...	...	...	...
Rubber	1,680	...	...	...	...	...	...	...	...	...
Siam	1,608	...	...	...	...	...	...	...	...
Shingles	2,081,125	...	...	...	...	...	...	...	...	...
Sugar	1,828,300	...	...	...	...	...	...	...	...	...
Timber	10,415	26,346	101,317	121,689	155,945	1,450	...	...	...	...	...	...

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.
Telegrams—
"Carib. London."



15, SERTING LANE,
LONDON, E.C. 3.
February 14th, 1922.

BANK RATE. Five per cent. as from Nov. 3rd, 1921.

EXCHANGE. Value of the £ Sterling.

	Jan. 31st	Feb. 14th		Jan. 31st	Feb. 14th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	17 6	17 10	In Spain ...	1 2 8	1 2 0
.. France ...	2 0 10	2 0 3	.. Germany ...	42 4 0	43 12 0
.. Belgium ...	2 2 10	2 2 2	.. Austria ...	582 8 0	503 0 0
.. Italy ...	3 14 11	3 12 6	.. Holland ...	19 2	19 3

The intrinsic value of the gold sovereign is £1 2s. 6d.

SUGAR. The New York market has been steady during the fortnight, prices for spot duty-paid Cubans ranging from 3.81c. to 3.70c. On account of its being the anniversary of Lincoln's birthday, the market was closed yesterday, but the latest quotation was 3.70c., equivalent to 2.09c. c.i.f.

The futures market's quotations on the 14th were as follows:—

	Mar.	May.	Jul.
	2-13	2-33	2-41

There has been a slight drop in the home market since the date of the last Summary. West Indian crystallised being quoted yesterday at 3s/- to 41/6; home granulated at 46/6; American granulated at 18/6 c.i.f.; imitation crystals at 40/9; white Natal, 41/- spot; white Mauritius, 43/-.

Cuban 96° March delivery were quoted at 11/9 c.i.f. The terminal market values yesterday were:—

	March.	May.	Aug.
96° ...	13/-	12 7/8	12 9
White ...	18 4 1/2	18 2 1/2	18 3

The Board of Trade Returns for January show a satisfactory statistical position, the consumption for the month having been 129,111 tons, as against 106,789 tons last December and 91,000 tons in January last year. Stocks also are considerably lowered, there being only 110,010 tons on hand on the 31st of January, as against 168,000 tons on the 31st of last December and 378,000 tons on the 31st of January last year. The imports for the month were only 105,074 tons, 39,056 tons of which were "refined," and 75,018 tons "unrefined." The refined imports included 20,063 tons from Europe and 8,297 tons from the United States. Of the unrefined sugar, 11,748 tons came from the British West India Islands and British Guiana, and 10,778 tons from Mauritius. The amount of home-grown sugar that went into consumption from Cantley and Kelham last year was 3,685 tons.

The West Indian sugar statistics in London on February 4th were:—

	1922.	1921.	1920.
Imports ...	185	2,056	5,390 Tons.
Deliveries ...	2,005	4,797	2,979
Stock ...	1,875	6,313	10,547

RUM continues dull and unchanged.

The quantity of rum imported during January was 139,582 proof gallons, as against 582,424 proof gallons in January of last year, the consumption being 166,479 gallons, as against 253,242 gallons. The exports were 16,885 gallons, as against 31,152 gallons in January last year. The stocks on the 31st of January amounted to 11,502,000 gallons, as against 12,035,000 gallons on the 31st of the previous month.

The stocks in London on February 4th were:—

	1922.	1921.	1920.
Jamaica ...	11,101	9,038	6,552 Puns.
Demerara ...	17,954	14,859	13,757
Total of all kinds	38,726	33,324	27,771

CACAO generally is quiet. At auction to-day fine Grenada sold with competition at 53/- to 56/-; 108 bags of Trinidad sold at 61/-; but no Jamaica was disposed of.

During the fortnight a bare business has been done in Jamaica at 48/-.

The total import of cacao for January was 166,751 cwt., of which 11,371 cwt. came from the British West India Islands and 145,453 cwt. from British West Africa. The consumption was 89,390 cwt., as against 91,449 cwt. in January last year. The stocks on hand on the 31st of January were 463,000 cwt., comparing with 690,000 cwt. on the 31st of the preceding month, and 626,000 cwt. on the 31st January last year. The exports were 23,224 cwt., as against 30,916 cwt. in January last year.

The stocks in London on February 4th were:—

	1922.	1921.	1920.
Trinidad ...	2,830	27,593	21,941 Bags.
Grenada ...	6,220	17,771	13,601
Total of all kinds	99,574	196,290	102,420

ARROWROOT. There are only small sales passing at recent rates—3½d. to 6½d., according to quality.

BALATA. West Indian sheet is quiet, with prices unchanged at 3/5½ spot, and 3/3 c.i.f. forward.

BAY OIL is very slow of sale, and valued nominally at 10/- per lb.

COFFEE in sale is fully steady, and the finer qualities are 3/- to 5/- dearer on the fortnight. Good to fine ordinary Jamaica is nominally unchanged at 60/- to 55/-; no Blue Mountain has been offered.

Imports amounted to 195,455 cwt. for the month, of which 410 cwt. came from the British West Indies, as against 36,861 cwt. and 942 cwt. in January last year. The consumption was 26,238 cwt., as against 26,408 cwt. The exports amounted to 36,118 cwt., as against 27,951 cwt. in January, 1921. Stocks on hand on the 31st were 463,000 cwt., as against 626,000 cwt. at the same date last year.

COPRA is firm, with buyers of West Indian firms at 226 c.i.f. Rotterdam or Hamburg.

COTTON generally has been more active. A fair business has been done in West Indian Sea Island at unchanged prices: medium 23d., fine 31d., extra fine 40d.

HONEY. At auction honey was very flat. Only a small quantity of Jamaica sold at 35/- to 40/- for liquid dark to amber, and 60/- to 57/6 for dull pale set.

LIME PRODUCTS. Lime Oil is steady but quiet, with values unchanged at Handpressed 15/-, and Distilled 2/- to 2/3. Lime Juice. There is no improvement yet in Concentrated, but there has been some enquiry for really fine quality Raw—which would be worth 2/6—but supplies are scarce.

LOGWOOD is dull. Shippers are asking for offers at about £10 per ton, but buyers are difficult to find.

ORANGE OIL. The market for Sweet is quiet, with no change in value. Bitter is unchanged.

RUBBER is barely steady and prices have shown a decline on the fortnight. Spot crepe 8½d., spot sheet 9½d.

SPICES. The market for Pimento remains steady at 2½d. per lb. on spot, and 20/- c.i.f. for February-March shipment. Ginger also continues firm, but no spot business is reported.

TRINIDAD OIL. Production for January: Apex (Trinidad) Oilfields, Ltd., 5,500 tons; Trinidad Leaseholds, Ltd., 10,800 tons.

THE CIRCULAR is indebted to Mr. Henry D. Baker, Consul for the United States, and Dean of the Consular Body in Trinidad, for a report of the proceedings on New Year's day, when he and his colleagues were received by the Hon. T. A. V. Best, the Acting Governor of Trinidad and Tobago, at Government House, St. Ann's.

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 8662



15, BRICKING LANE,
LONDON, E.C. 3
March 1st, 1922

PRINCESS MARY'S WEDDING.

THE wedding of PRINCESS MARY took place at Westminster Abbey on Tuesday last, 28th February, when the vast concourse of spectators assembled along the route of the Royal procession testified to the devotion in which the House of Windsor is held. As we pointed out in an earlier issue, The West India Committee had particular reason to be interested in the Royal Marriage, LORD LASCELLES, upon whom the PRINCESS has bestowed her hand, being the son of their President, LORD HAREWOOD. It was appropriate, therefore, that they should have offered to the PRINCESS a wedding gift. This, the many contributors will be glad to learn, was formally presented to HER ROYAL HIGHNESS by LORD HAREWOOD, who was accompanied by the Chairman, MR R. RUTHERFORD, and the Secretary at Buckingham Palace, on Saturday, 25th February. It took the form of a set of dining-room chairs of the reign of William and Mary, which the PRINCESS selected for her Yorkshire home. The contributors will also, we believe, be pleased to know that their gift should have taken so practical a shape. For an account of the wedding ceremonies we must refer our readers to the daily and illustrated Press, and we conclude this article by again wishing PRINCESS MARY and LORD LASCELLES long life and happiness.

SUGAR IN THE UNITED KINGDOM.

THOSE readers who studied the "Produce Markets Summary" in our last issue can hardly fail to have been struck by the low figure of the stocks of sugar in the United Kingdom on January 31st, as shown by the Board of Trade returns. Standing at 110,010 tons, they represented only a little over three weeks' supply at the rate of consumption prevailing during the month, which amounted to 129,111 tons. With every prospect of increased consumption resulting from the present lower range of values, especially of preserves and confectionery—and chocolates are being widely advertised for sale at 1/8 per lb.—a reserve of sugar of 110,000 tons only can only be regarded as dangerously low, and it is surprising that consumers and the sugar-using trades do not yet appear to have appreciated this. The time has passed—one wishes it were possible to add, for ever—when in times of scarcity importers could send "over the way" to Hamburg for as much sugar as they wanted, at short notice. Europe has as yet comparatively little or no sugar to spare, and consequently the English importer, in his hour of need, has to go further afield for his supplies, the delivery of which from the British West Indies, Mauritius, Cuba, Java and America is a matter of weeks rather than of hours, as it used to be when the Continent was a source of supply. The moral of this is that the users and importers of sugar will have to maintain their reserves at a higher level than before the war if they wish to avoid the risk of being "caught napping." The shortage in the United Kingdom was mainly in direct consumption sugar, and it is manifest that little progress is being made in the direction of developing the refining capacity of the United Kingdom to meet the demand, the present output capacity of the British refiners being, judging from the Board of Trade Returns, at the utmost 70,000 tons per month, or but little greater than before the war, which is far below the consumption requirements. The stocks of imported direct consumption sugars which were available on January 31st were only 14,000 tons, as compared with 77,250 tons and 28,450 tons on the corresponding dates in 1920 and 1921 respectively. As the consumption increases, as it probably will continue to do if supplies are available, the consumer will become more and more dependent upon imported direct consumption sugars, and for these he must look mainly to the United States, Java and Mauritius. It is very evident, therefore, that unless the refining capacity of the United Kingdom is largely increased, the sugar situation will be mainly controlled by the United States, which, although nearer than the Eastern countries mentioned, is far off when compared with the Continent.

PRINCESS MARY'S WEDDING.

Lord Harewood, President of The West India Committee, Mr. R. Rutherford, Chairman, and the Secretary, on behalf of the Executive and Members, presented The West India Committee's Wedding Gift to Princess Mary at Buckingham Palace on Saturday, the 25th of February. The gift took the form of a set of antique dining-room chairs of the period of William and Mary, which Her Royal Highness had selected at Mr. Oscar Callow's establishment in Mount Street. Two of the chairs are depicted on this page. Princess Mary, who was accompanied by Lord Lascelles, acknowledged the gift with the words set out on page 89.

In connection with the Royal Wedding, for the account of which our readers must be referred to the daily and weekly Press, it will have been noted with satisfaction by the members of The West India Committee that the King has bestowed upon Lord Harewood, their President, the honour of a Knight Grand Cross of the Royal Victorian Order.

A further list of contributors to the Committee's gift is given below:—

The Bahamas Chamber of Commerce, Messrs. Boddington & Co., Captain W. Bowring, M.B.E., Rev. W. A. Bryan, Mr. S. Cameron, Mr. Evan H. Campbell, Mr. C. Algernon Campbell, Miss Carrington, Mr. A. H. Cipriani, M.B.E., "C.G.," Lt.-Col. H. A. Clifton, Mr. J. Connell, His Excellency Sir H. E. S. Cordeaux, K.C.M.G., C.B., D.S.O., Hon. James Cran, O.B.E., M.D., Mr. Harold de Pass, Mrs. T. P. de Rinzy, Mr. J. K. French, Mr. Edgar Garnett, Mr. A. Bharat Gobin, Mr. Cyril Gurney, Hon. R. Haynes, Owners of Henley Plantation, Barbados, Mr. C. C. Henriques, Messrs. Kleinwort, Sons & Co., Lieut.-Colonel George Lane, Mr. Norman Malcolmson, O.B.E., Mr. J. W. McCarthy, His Honour Mr. Justice W. P. Michelin, Rev. W. Lipscomb Orpwood, Mr. W. R. Shilstone, Mrs. D. A. W. Simpson, Mr. Norman D. Simpson, Mr. Percival Stevens, Mr. W. Duncan Thomson, Mr. R. A. Torrance, Mr. F. H. Watson, Mrs. Wigley, and the Staff of The West India Committee.

WEST INDIA STEAMER ROUTES.

French Line to call at Plymouth.

With the s.s. *Catalina*, which left the Victoria Docks on February 28th, the Royal Mail Steam Packet Company inaugurated a three-weekly service of cargo steamers between London and Bermuda, Nassau (New Providence, Bahamas) and Jamaica. This vessel will be followed by the s.s.'s *Teviot*, *Conway*, and *Tamar*, on March 17th and April 7th and 28th, respectively. This new service should prove a splendid boon to the Bahamas, which have hitherto been practically cut

off from steamer communication with the Mother Country. It is understood, however, that unless special inducements offer, the steamers will return direct from Jamaica, and will not call at Nassau on the homeward voyage.

Simultaneously with this announcement comes the news that the passenger steamers of Compagnie Générale Transatlantique will call at Plymouth to pick up and disembark passengers on their outward and homeward voyages to and from the West Indies, commencing with *La Navarre*, which will leave the Devonshire port on May



A Wedding Gift to Princess Mary.

These two chairs form two of a set presented by THE WEST INDIA COMMITTEE to Princess Mary on the occasion of her marriage to Lord Lascelles, son of their President. The chairs, which are covered with green brocade, are of the period of William and Mary.

1st next. The itinerary outward will be Pointe à Pitre and Basse Terre (Guadeloupe), Fort de France (Martinique), Trinidad, La Guaira, Puerto Colombia, and Cristobal-Colon; and homeward, Puerto Colombia, Puerto Cabella, La Guaira, Carupano, Trinidad, Fort de France, Basse Terre, and Pointe à Pitre. The other steamers on this route will be the *Péron* and *Macoris*.

The fares to Trinidad will be: first-class £51, and second-class £35.

Coincidentally with the above developments, the Royal Dutch West India Mail, whose steamers sail from Dover to Barbados and Trinidad fortnightly, and call on the homeward voyage at Plymouth, have reduced their fares to the following figures:—First-class, £50 15s.; second-class, £35; and third-class, £17 10s.

Subscriptions to The West India Committee became renewable on January 1st last.

INCOME TAX LEGISLATION.

The Inter-departmental Committee on Income Tax in the United Kingdom and Colonies has now held several meetings, under the chairmanship of Sir Gilbert Grindle. The West India Committee's representatives (Mr. Cyril Gurney, Mr. H. J. J. Freeman, F.C.A.; Captain G. Hudson Lyall, M.B.E.; Mr. A. O. Chudleigh, F.C.I.S., F.L.I.A.; and the Secretary) gave evidence before it on January 23rd, and they were followed, on February 6th, by the Association of British Malaya, who endorsed the views of The West India Committee, as expressed in their memorandum, dated December 7th last, as far as they affected Malaya.

By those concerned with United Kingdom Income Tax legislation in its bearing on the similar form of taxation now in force, or contemplated, in the Colonies, the forthcoming Budget is awaited with interest. It is recognised that if assessment on the basis of a single year were substituted for the three years' average system now prevailing in this country, a very definite step would have been taken in the direction of securing uniformity in the Income Tax legislation in the United Kingdom and the Colonies, which it has been The West India Committee's aim to bring about. A pronouncement on this question is consequently hoped for.

What is now greatly to be desired is the preparation of a model Income Tax Bill for consideration in the Colonies. Meanwhile the CIRCULAR learns that in response to an urgent invitation from the Governor of Trinidad, Mr. C. H. Rickman, chairman of the Assessment Committee in Jamaica, is proceeding to Port of Spain, in the *Megantic*, immediately, to advise the Government of Trinidad and Tobago regarding their amending Income Tax Bill. Mr. Rickman was for many years an official at Somerset House, and he is a recognised authority on Income Tax matters. He went out to Jamaica in 1920 to straighten out the income tax question in that colony, and his counsel and advice in Trinidad should be very valuable. The readiness with which the Jamaica Government "lent" him to the neighbouring colony is evidence of the spirit of co-operation which, after many years, is now pervading the British West Indies, and encourages the hope that there soon may be still greater uniformity in all matters concerning them.

AGRICULTURAL EDUCATION.

The Importance of Research.

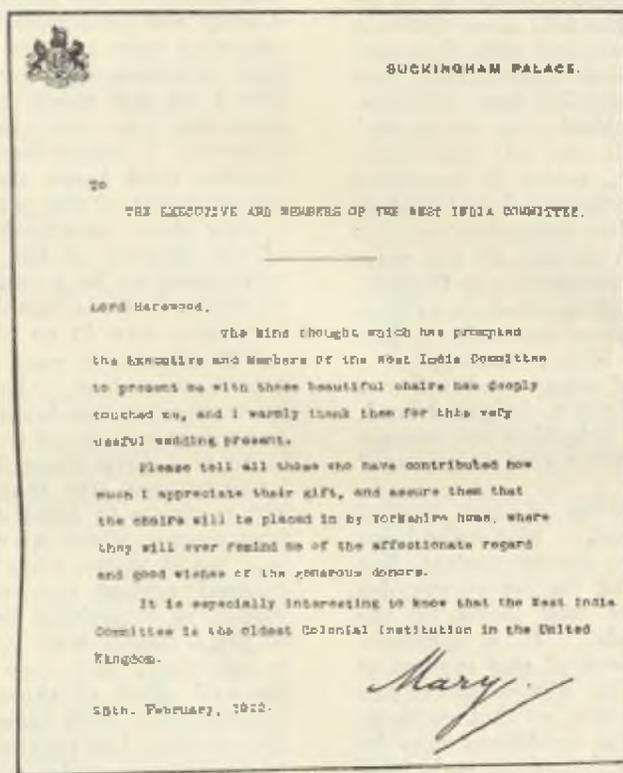
BY M. L. ROKAS.

The following article by Mr. M. L. Rokas, which is taken from the SUGAR NEWS, of the Philippines, is of special interest in view of the recent decision to link the Imperial Department of Agriculture with the West Indies Agricultural College.

When discussing the function of the College of Agriculture of the University of the Philippines, people are inclined to believe that teaching of the

agricultural profession is, or should be, its main object. It is true that the training of young men in the different professions related to agriculture is one of the principal activities of this college, but it is also true that in order to accomplish this object efficiently the college has to be in continuous touch with the different agricultural industries and with the people concerned in them, and help promote the advancement of these industries by research and investigation, in both the theoretical and applied sciences. The College of Agriculture of the University of the Philippines has always considered these two functions as its proper activities. The College has, therefore, tried its best to train young men in sugar technology and in solving some of the pressing problems in connection with the raising of sugar-cane, although through lack of support it has never been in a position to undertake any

thorough and systematic work along this line. The College is at present training some twenty-two students in sugar-cane agronomy and chemistry, and perhaps this is at present the most important work it is doing for the sugar industry. Later on, after our unit mill is erected, the college will be able to offer short courses for the training of personnel in the minor positions, such as laboratory assistants, sugar boilers, and field overseers. It is generally recognised that with more intelligent and experienced minor operatives in the plantation and at the mill, the efficiency of the centrals will be increased a great deal. In past years the most progressive centrals undertook to train their own personnel, only to find that the backward ones robbed them of this trained help, so that they were converted into a sort of training school for



Princess Mary's Acknowledgment.

It will be noted that reference was made to the fact that The West India Committee is the oldest Colonial Institution in the Mother Country.

minor operatives. Such conditions are naturally stumbling stones in the progress of the industry.

As stated in the beginning, since its foundation, the College of Agriculture has realised the necessity of doing investigation work in the field of applied agricultural science. A review of the most important sugar problems being investigated at the college, and some of the results obtained, should be of interest.

The problems involved in the economic production of cane in the field are the most important from the point of view of the island industry, for, while in the efficient running of the mill it is possible for us to draw largely upon the experience of Hawaii and Java, it is hardly possible to do so in the art of growing cane in the field since methods and practices of other countries are well nigh useless here except as guides for experimentation. True it is that the principles in scientific farm management, the so-called modern methods, can be adopted here, but our peculiar climatic and soil conditions, including our human factor, make it necessary to modify a great deal the practices found best in other countries. To cite a few examples:—

1. Irrigation was found to be one of the most potent factors in heavy cane production in Hawaii. Irrigation was practised on certain plantations here following the regular Hawaiian methods. The result was disheartening. Heavy tonnage was obtained, but the amount of sugar produced was in most cases less than that from unirrigated land. In other words, the effect of irrigation was merely to increase the amount of water sent to the mill in the cane.

2. To improve existing varieties of cane, foreign varieties have been introduced. Not only have 95 per cent. of these varieties proven useless, but they have introduced some of the worst enemies of the sugar-cane, which are now menacing the sugar industry of the islands. It is therefore apparent that the improvement of our system of farming should be started by a systematic and thorough study of our conditions, so that methods that are best adapted to these conditions may be devised instead of the introduction of methods from other countries.

The work on sugar at the college has been on the following problems:—

1. Cane "seed" and its treatment.
2. Methods of planting cane.
3. Variety tests and the creation of new varieties by breeding and selection.
4. Effects of fertilisers on sugar-cane.
5. Diseases of sugar-cane.
6. Sugar chemistry and sugar manufacture.

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

IMPERIAL PREFERENCE.

The Coalition Party's Policy.

Mr. Austen Chamberlain, M.P., as leader of the Unionist Party, made an important announcement at the Central Hall, Westminster, on February 21st, as to the policy of the Coalition Party regarding Imperial preference. Coming to the question of Tariff Reform and of Imperial preference, which was the very genesis of the Tariff Reform movement, he said: "I am suspected of much weakening of my faith. I am charged with abandoning old principles, and I admit that I am adopting new policies to suit what I consider a new situation and an altered world. (Cheers.) But I do not think anyone will accuse me of cowardice in the matter of Tariff Reform. (Cheers.) I fought for the whole scheme, root and branch, food taxes and all, until my leader and the majority of the party had abandoned me; and I only then consented to abandon them because of the urgency of the Irish question and my unwillingness to be a cause of disunion in the party of which I was a member. But I say to you, we are living now in an altered world.

"Preference is part of the policy of this Coalition Government. By them it has been placed upon the Statute-book, and it remains part of our policy as long as we act together that wherever there is a duty there shall be a preference. But I say to you also that it would seem to be perfect madness to think that in a world so altered from that in which we were acting before the war, in a world where what you want is not to defend yourself against competition, but to find anyone who is in a position to purchase your goods and to place orders with you, and in a country which is smarting, and very naturally smarting, under the evil effect of those Government controls and interferences with industry which were unavoidable in war, but proved a great source of difficulty to us both in their existence and in the measures necessary to get rid of them since the war concluded—in such a world and in such a country to go out with the old programme of Tariff Reform at this time seems to me perfect madness. (Cheers.)

"Tariffs are not a principle, they are a matter of expediency. Our complaint against the old Manchester school is that they erected an imperfect form of Free Trade into a principle. We invited the country to treat them as a matter of expediency. Before the war I think the country would have been wise to follow our advice. I think it quite possible that the time will come again when the same advice may be wisely offered and wisely accepted by the country. But at this moment, when there is no trade to be got, it is not the time to choose to institute a general tariff which would not be in such circumstances effective for revenue and which is not in such circumstances needed for protection."

SOME NOTES OF INTEREST.

"MONKEY play de fiddle mek haboon dance."

THE 1921-22 sugar crop of Holland is 385,000 tons, as against 316,000 tons in 1920-21, and 238,700 tons in 1919-20.

THE Royal Commission on the Sugar Supply disposed of the last of their stock of American granulated at Liverpool on the 10th ult.

MISS PICTON-TURBERVILL, O.B.E., left England on February 7th for Jamaica, on behalf of the World's Young Women's Christian Association.

THE Government control of sugar in Australia continues. The Controller, Colonel Oldenshaw, is, it is stated, leaving for England to discuss sugar matters with the British Government.

MR. C. E. VEZEY, who in August last left British Guiana, where he was for some years local representative of the Royal Mail Steam Packet Company, is now in the West End office of the company at Cookspur Street.

PROFESSOR W. M. GELDART, C.B.E., M.A., B.C.L., whose death at Kingston, Jamaica, on February 12th, is announced, was Vinerian Professor of English Law at Oxford, succeeding Professor Dicey in this Chair in 1909.

THE Cuban Cane Sugar Corporation have informed their cane growers that the percentage in sugar allowed in payment for the canes has been reduced three-quarters of 1 per cent. The company, however, will make an allowance for cutting and haulage.

CAPTAIN A. R. H. MORRELL, captain of the cable repair steamer *Henry Holmes*, of the West India and Panama Telegraph Company, has been elected as Acting Elder Brother of Trinity House, in the vacancy caused by the retirement of Captain A. S. Thomson, C.B., C.B.E.

A RHODES Scholarship at Oxford has been won by Mr. E. S. Swaby, of Jamaica. Mr. Swaby, who was educated at Munro College, is the youngest son of Rev. C. H. Swaby, Rector of St. Ann's Bay Parish Church. During the war he served as a Second Lieutenant in the Jamaica Contingent.

THE *Australian Sugar Journal* states that the jam factories in Hobart were in full swing at the end of the year, after having been closed down for some months. The re-opening was due to the dry summer experienced last year in England, which occasioned large orders for jam to go to Australia.

It is announced in the *New York World* that Mr. Marcus Garvey, president of the Universal Negroes' Improvement Association, chairman of the Black

Star Line, the Universal Laundry, and other concerns, and self-styled President of the African Republic, has been arrested in New York on a charge of fraud.

IN the year 1777, St. Thomas and St. Croix, now the Virgin Islands of the United States, exported 9,624 tons of sugar, and in 1782 the sugar industry there was able to export 14,617 tons of sugar. The maximum production was, however, reached in 1802, when 18,729 tons were exported. The estimate for the present crop is 5,000 tons.

AS foreshadowed in the CIRCULAR, it has now been definitely decided to hold the British Empire Exhibition at Wembley in 1924, instead of next year. This will give intending exhibitors—and it is hoped that the British West Indies will make a brave show and organise a pavilion of their own—good time in which to make their preparations.

THE *Philippine Sugar News* gives the cost of production of sugar in 1913-14 in the following countries as having been:—

Cuba (per long ton)	\$29.94
Porto Rica (per long ton)	\$64.63
Hawaii (per long ton)	\$68.70
Philippines (per long ton)	\$62.72

A FURTHER conference between representatives of The West India Committee (Mr. R. Rutherford, Mr. G. M. Frame, Mr. N. Malcolmson, and Lieut.-Colonel Ivan Davson) and the Royal Mail (Mr. Mitchell and Mr. Keefe) and Messrs. T. and J. Harrison (Mr. F. A. Baddeley and Mr. J. H. Stark) was held at The West India Committee Rooms on February 24th, to discuss the question of freight rates.

THE revival of cotton-growing in British Guiana, which has frequently been advocated in THE WEST INDIA COMMITTEE CIRCULAR, appears to be progressing in a very encouraging manner. Reports on the quality of the first crop, which has been reaped, are distinctly favourable, and it is stated that the Georgetown Chamber of Commerce have requested the Government to arrange for the installation of a ginnery.

THE hospital ship *Berbice*, originally built by the Royal Mail Steam Packet Company for the West Indian inter-Colonial steamer service, is to be paid off and sold by the Admiralty, which took her over during the war. She is a sister ship of the *Balantia*, which was also on the West India station before the war, and is now cruising between England and the Canary Islands, under the name of *Saint Margaret of Scotland*.

MARCONI'S Wireless Telegraph Company opened their new central telegraph office, Radio House, 2 and 12, Wilson Street, London, E.C., on February 19th. Radio House, Marconi House, Strand, and the office at 1a, Fenchurch Street, will be open from 9 a.m. to 9 p.m. daily, excepting on Sundays

and Bank Holidays, for the transaction of business, but correspondence should be addressed to the Traffic Manager, at Radio House, who is an old friend of the West Indies, Mr. O. Rochs, formerly of the Direct West India Cable Company.

* * *

THE Parliamentary Under-Secretary for the Colonies, Mr. Edward Wood, M.P., Major Ormsby-Gore, M.P., and Mr. R. A. Wiseman reached Plymouth in the Dutch Mail steamer on February 28th on their return from their West Indian tour. On reaching London they were met by Lord Wodehouse on behalf of Mr. Churchill, and by Sir Gilbert Grindle and Mr. A. J. Dawe, representing the Colonial Office.

* * *

Two manuscript volumes dealing with the Barbados census of 1679 have been presented to the Guildhall Library by Mr. E. Williams. They contain lists of the inhabitants, baptisms, and burials from April, 1678 to September 1679, negroes imported, 1679, planters owning 200 or more acres in 1678, departures from the Island, 1679, the military forces, 1679, judges, King's Counsel, and Members of the Assembly.

* * *

IN connection with the agricultural development of Peru in 1921, the *Board of Trade Journal* says that a large order has been placed by a Peruvian estate for German sugar machinery, the price being about a third less than the lowest British quotation. For many years prior to the war practically all the sugar machinery in Peru was of British origin, German machinery only being found at the German Casa Grande Estate, where it was installed in 1915. German light railway material for use on sugar estates is also arriving in quantity, at very attractive prices.

* * *

ARRANGEMENTS have now been made whereby subscriptions to The West India Committee can be paid at any of the branches of The Bank of Nova Scotia in Jamaica, besides those of the other Banks already named. This will no doubt be a convenience to members in Jamaica, who will now have ample opportunity of paying their dues with a minimum of trouble, since The Bank of Nova Scotia has branches at Kingston, Mandeville, Savanna-la-Mar, Black River, Montego Bay, St. Ann's Bay, Port Maria, Port Antonio, Spanish Town, Morant Bay and Linstead.

* * *

CAPTAIN G. HUDSON LYALL, M.B.E., has retired from the firm of Messrs. Samuel Dobree and Sons, West India merchants, as from January 1st, and has resumed his practice as a solicitor, having joined the old-established firm of Messrs. Markby, Stewart and Co., of 7, Devonshire Square, Bishopsgate. In consequence of this change, Captain Lyall has felt it necessary to retire from the Executive of The West India Committee, who have accepted his resignation with regret, his legal knowledge and experience having proved of great assistance to them during the past year.

IN the House of Representatives, in the United States, on February 16th, Representative Ten Eyck, Democrat, proposed a resolution urging the President to take steps to purchase all the territory "east and west of the line comprising the centre of the channel of the St. Lawrence River from its mouth to its source," and to use his best endeavours to have the payments due to the United States by Great Britain set off against the purchase price.

The *Daily Telegraph*, commenting on this, says that Mr. Ten Eyck is regarded as an incorrigible humorist, and for that reason probably his resolution was not printed generally. "President Harding is no more likely to take action as proposed than Mr. Wilson, when his son-in-law (Mr. McAdoo) suggested that Bermuda and certain islands in the West Indies might be bought by the United States."

THE Overseas Club, which did such wonderful work during the war, is now housed in one of London's historic mansions. Negotiations for amalgamation with another Colonial body having been terminated by mutual consent, their Council purchased Vernon House—till recently the residence of the Dowager Lady Hillingdon—for £45,000, and they are now installed in that handsome building. The opening ceremony was performed on 2nd February by the Duke of York, who also unveiled a portrait of Evelyn Wrench, the founder, chairman and soul of the Overseas Club.

MAJOR W. ORMSBY-GORE, M.P., found time during his short visit to Jamaica to write an article describing his impressions, which is published in the *Times* of February 6th, under the caption, "In Banana Land." He found that banana is to Jamaica what coal is to England. With the sugar situation he deals sympathetically. "In 1919 and 1920 there was," he writes, "a world boom in sugar, and Jamaica shared in the abnormal profits of that boom. But, alas for Jamaica, that brief boom has been followed by an abnormal slump, and in spite of the fact that most of the sugar planters put their abnormal profits back into the business in the form of much-needed new machinery, unless they can get within the year a price for Jamaica sugar not too far below the present high cost of production, there is a serious look-out both for them and the thousands they employ. The British and Canadian preferences have done something for them, but the preference seems to become dissipated during transit of the sugar from grower to consumer, being in this respect like some of the Jamaican rivers, which, although rising as mountain torrents, reach the sea only as sluggish rivulets."

BAKED BREADFRUIT.—Remove the heart of the breadfruit, fill it with a rich force meat made with plenty of butter, and bake. **FRIED BREADFRUIT:** Take hot boiled breadfruit, slice it, then dip the slices in a well-seasoned batter, dip in bread crumbs and fry brown in plenty of butter or lard.

CONFECTIONERS AND DUTIES.**Divided Opinions.**

At the recent conference of the British Federation of Wholesale Confectioners, held at Nottingham, for an account of which we are indebted to *The Confectioners' Union*, in the course of a discussion on "A resolution that the federation call the attention of H.M. Government to the serious decrease in the consumption of jam and confectionery consequent upon the high prices thereof, and pointing out that this was largely due to the tax, which was over 150 per cent. on the c.i.f. price of sugar," Mr. Halstead, of Halifax, said: "I have good reason to think, and I have good reason to believe, that there will be no reduction of the sugar tax this year, and there is not the slightest doubt about it that the Government feel that the working man would rather pay his tax through his cup of coffee or through his quarter of sweets than he would in direct taxation, and if the sugar tax is removed it will simply mean that the Chancellor of the Exchequer will have to obtain other means to find this money, and he has to put it on direct taxation. He knows the working class is against it, and I don't think you are going to remove it, or to reduce it for that matter. I don't think you will get any help. I think it is wisest that the tax should remain, and that the man should pay his tax through his cup of coffee or through his quarter of sweets in preference to having to pay direct taxation. I for one am not welcoming any further reduction in the price of sweets until we can get our overhead expenses down. If sweets drop to a much less point, and overhead charges remain as they are to-day, I don't see how we are to carry on, and I am personally against anything which is going to make a further reduction in the cost of sweets until we first get some reduction in our overhead expenses."

Mr. Garton, of Nottingham: "I think the present time is the wrong one to try and reduce this tax. The Chancellor of the Exchequer has got to get his money from somewhere, and he is getting quite enough from me out of Income Tax. Let me have that reduced. If he reduces the Income Tax then I am willing to let the working man have a bit more. He will only pay that way, and not directly, and I agree with our Halifax friends that it is a difficult matter. You have not only the Board of Trade up against you, but the Trade Board Act, and with regard to reducing your overhead charges, which they have not reduced enough. Under the Trade Board Act, a girl of 14 had 14/- per week. She has 12/- to-day, and you cannot get them to work. If you engage lads, you have to sack them every week. We have half-a-dozen fresh hands every week, and they don't work unless you are on the spot. You have to pay these people whether they work or not. I think, as far as this matter is concerned, the less we agitate the Chancellor of the Exchequer the better it will be for us."

The resolution was defeated by a large majority.

"RUM" FROM BEET JUICE.

The *International Sugar Journal* for January contains an abridged translation of an article by Professor Hugo Haupt, which has appeared in the *Chemiker Zeitung*, on the manufacture of rum from beet juice, beet molasses, etc.

In preparing the rum, the fermentation stage consists of two parts, one of which is carried out at the high temperature of the tropics, under the influence of special ferments. Beet molasses is set up separately, and using spent wash after the distillation of fermented wash, a dunder is prepared by the addition of sugar, nitrogenous residues and fruits, the mixture being submitted to a bacterial fermentation at a high temperature. The dunder thus prepared is introduced in a determined proportion into the separately fermented molasses wash before distillation. Distillation is effected by the use of modern stills, the first product being an alcohol particularly rich in ether. The second product, which contains small quantities of ether, is mixed with the first product, the different qualities of commercial "German rum" resulting.

Comparative gustatory tests were made with genuine commercial Jamaica rums taken from bonded warehouses, by diluting with soft water in the cold, and submitting to appreciative tasters. "Groggs" were also prepared with hot water and sugar, and similarly tested. All the persons participating in the experiments considered the "German rum" as fully equal to Jamaica rum of average quality, and superior to the rum now being imported, which is stated to be of inferior quality to the pre-war article. Jamaica rum, however, of first quality was found to possess a finer and more abundant flavour than the "German rum." One of the experts, whose sense of smell appears to have been particularly delicate, is stated to have observed an aroma in the "German rum" different in several respects from that of genuine rum, recalling the production of substances originating from the beet.

The author considers that the new product possesses the right to the name of rum.

This is not the view of the British Government, which, it will be recalled, has accepted the definition of rum submitted by The West India Committee to the Royal Commission on Potable Spirits in 1909, as "a spirit distilled direct from sugar-cane products in sugar-cane growing countries." In this connection it is to be regretted that in the Board of Trade Returns, rum is still coupled with imitation rum, and producers will be glad to learn that The West India Committee is making representations to the Board of Customs on this subject.

Adverting to the paragraph which appeared under this heading in the CIRCULAR of January 5th (page 10), the Postmaster-General has, at the request of The West India Committee, consented to forward mails from the United Kingdom to the Leeward Islands, via New York, for conveyance by the Furness-Bermuda Line whenever there is advantage in doing so.

SUGAR RESEARCH.**An Expert for the West Indies.**

It is satisfactory to learn that, in spite of hard times, the British Empire Sugar Research Association, which was in danger of succumbing to inanition, has been kept alive. Thanks mainly to the good offices of Sir Edward Davson and the British Empire Producers' Organisation, arrangements have been made whereby it will receive the promised pound-for-pound grant from the Department of Scientific and Industrial Research.

This will, it is understood, enable the Association to proceed with its work of research, although on a smaller scale than it was at first hoped. For this purpose Sir Francis Watts, of the Imperial Department of Agriculture, and Professor Baker, of the Imperial College of Science and Technology, have consented to direct the preliminary stages of the work, and a Research Chemist, Mr. R. G. Farnell, A.R.C.S., A.I.C., has been appointed. Mr. Farnell, after spending some months between the Sugar School in Glasgow, the works of the various sugar machinery makers, and a course of colloidal chemistry, under Professor Schreiber, of London University, will proceed to the West Indies, where he will work under the direction of Sir Francis Watts, and will investigate sugar problems in the laboratories of the Agricultural Department, and later at the newly-formed West Indian Agricultural College, as well as on the plantations and factories at first hand.

In this connection it is of interest to note that the Sugar Bureau which is conducted by Mr. Wynne Sayer in India, is to be maintained for a further period of one year or until definite orders are passed regarding the recommendations of the Indian Sugar Committee, whichever is earlier.

The main work of the year 1920-21 consisted in furnishing the Indian Sugar Committee with information, in giving replies to the numerous correspondents who seek the advice of this office on matters connected with the Indian sugar industry, and in developing relations with the Directors of Agriculture and Industries, the management of sugar factories in India, and the Directors of Sugar Experiment Stations throughout the world. The Bureau has also been able to give considerable assistance to prospective purchasers of sugar machinery by placing them in touch with sugar machinery manufacturers and arranging for early delivery of the machinery required. The raising of the import duty on foreign sugar from 10 to 15 per cent. ad valorem, with effect from 1st March, 1921, has had the practical effect of giving protection to the Indian sugar industry, and this has stimulated among capitalists the desire for establishing modern factories in suitable localities, for which there is ample room. The Bureau, in order to assist the sugar trade in India, now publishes every week statistical notes bearing on the production and consumption of this commodity in the principal sugar-producing countries of the world, and the rise and fall in the world's price of sugar.

HOME GROWN BEET.

Presiding at a luncheon of the British Beet Growers' Society, Ltd., at the Hotel Victoria, in London, on February 21st, Lord Denbigh said that he earnestly hoped to see sugar factories dotted over the land, which would be a sort of centre of industrial industry bringing life and activity into what would otherwise be a dull and listless countryside. Years ago the cry was started that the industry was not suitable for our climate, but they had knocked all that nonsense on the head long ago. In 1912 the Cantley factory, and later on the Kelham factory, were built, and the value of the sugar produced last year was, at the former £88,000, and at the latter £40,000. It was no secret that Kelham had made a loss; but there was no reason for discouragement, for he believed if the industry was given a chance it could be made a great success. If they allowed it to be smothered with an Excise duty in its infancy, it would be a great misfortune. He thought the duty should be taken off.

Lord Milner hoped the Government would depart from the attitude they had hitherto adopted towards sugar-growing in this country, and would support it in order that an experiment of the greatest national importance might be thoroughly tried and not abandoned for want of initial success. It was evident, from the experience of foreign countries which had introduced it, that it could not succeed unless in its infancy it was carefully nursed, and for a considerable period afterwards. The old argument about free trade and protection did not apply; the only question was whether, if fairly tried, and tried long enough, the industry might hope to have a prosperous career in this country. It was impossible to say yet that that had been proved, but neither had it been disproved. On the contrary, certain points of great importance had been established which were full of promise for the future. For instance, the doubt, freely expressed, whether sugar beet could be grown in this country had been proved to be unfounded. On the agricultural side, he believed he was justified in saying the thing had been a success. It was on the manufacturing and trading side that there had been failure—and, so far, grave failure—but it was not to be expected that with new machinery and untried men the thing would make the best possible start. He believed that the defects in this respect were perfectly capable of remedy; in fact, they were now being remedied. It was on the trading side that there had been such a disaster, but that was not really surprising, for it occurred in a year when the best business interests suffered great losses. If they were going to appeal for help, they should ask boldly for the remission of the duty altogether for a sufficient time to give the experiment a conclusive trial. (Cheers.)

It will be noted from Sir A. Boscawen's statement in the House of Commons on 22nd February, which is printed on page 100, that the Kelham enterprise is in a desperate plight.

THE AGRICULTURAL COLLEGE.

Captain Arthur Hill made a Governor.

As foreshadowed in the CIRCULAR, Captain Arthur W. Hill, F.R.S., M.A., Sc.D., F.L.S., who yesterday succeeded Lieut.-Colonel Sir David Prain, C.M.G., C.I.E., F.R.S., as Director of the Royal Botanic Gardens, Kew, has been nominated a Governor of the West Indian Agricultural College by the Secretary of State for the Colonies.

It is satisfactory to learn that the College will retain the services of Sir David Prain, who since the incorporation of the College has filled the post of Deputy Chairman, as a Governor.

Captain Hill attended the West Indian Agricultural Conference at Port of Spain in 1912, and subsequently made a tour of the islands. He has also visited British West Africa and other parts of the Empire, and his knowledge and experience of colonial conditions should prove of great value to the Governing Body.

The Governing Body held a further meeting on February 22nd, when the announcement of Captain Hill's nomination was received with much satisfaction, while the Governors expressed their real pleasure at the prospect of their being able to continue to receive the counsel and advice of Sir David Prain. At the same meeting it was reported that the Imperial Government had definitely agreed to contribute £15,000—spread over five years—to the funds of the West Indian Agricultural College on the condition that the work of the Imperial Department of Agriculture, which is to be associated with it, was maintained.

The Executive Committee, under the chairmanship of the Hon. R. Gervase Bushe, C.M.G., have also held several meetings recently, as the result of which it is probable that the work of the College will be begun earlier than was at first thought possible, temporary premises having been acquired at St. Augustine in which a start can be made. This will involve the transfer of the Imperial Department of Agriculture from Barbados to Trinidad at an early date.

THE AUDUBON SUGAR COURSE.

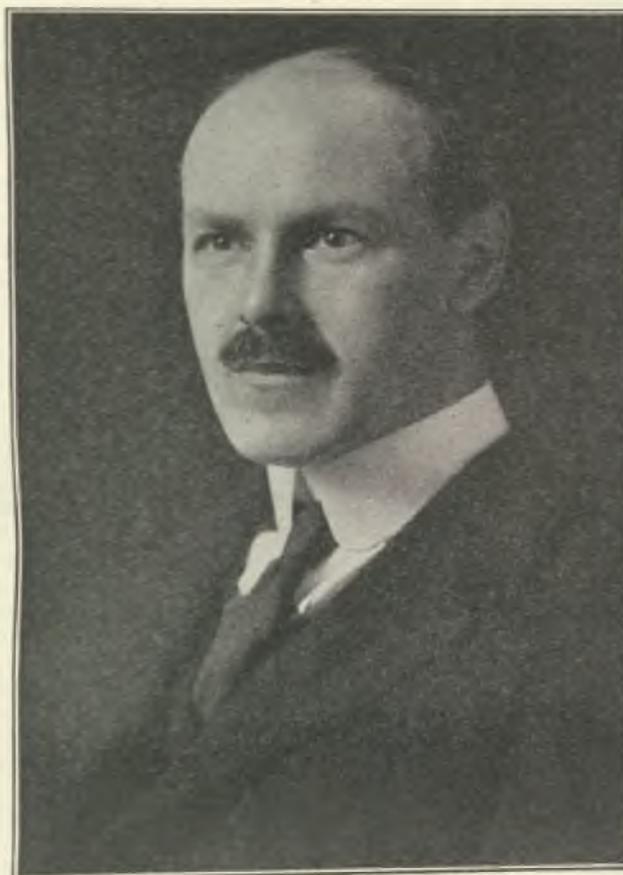
The most complete course in cane sugar technology in the world is that afforded by the well-known Louisiana training institution, the Audubon Sugar School, associated with the Louisiana State University.

The full course occupies five years, the first three of which are devoted to training in the general principles and practice of chemistry and engineering. At the end of this period the student is taught to apply the learning thus acquired to the practical side of cane cultivation and sugar-making,

his attention being first devoted to the latter. There is a complete plant of sugar-making machinery in connection with the school, as well as the necessary chemical and biological laboratories. The plant, which is capable of dealing with one ton of canes per hour, having all the appliances necessary for the manufacture of white sugar, as well as of 98 deg. sugars for refining purposes. The student also obtains practical acquaintance with the planting, growing, and reaping of cane. To this part of the curriculum a year is given, which brings the student to the end of his fourth year.

The fifth year is opened by a short course at the University in connection with points in sugar technology which his experience at Audubon Park has enabled him to grasp, and to the perfecting of his practical laboratory knowledge; and finally, when the Louisiana crop commences, he goes through a sugar factory as an

employee in the various departments. At the end of the crop he returns to the University and takes the degree of B.S., to the acquiring of which his training has so well qualified him.



Captain Arthur W. Hill, F.R.S., Sc.D., F.L.S.
Director of the Royal Botanic Gardens, Kew, who has been appointed a Governor of the West Indian Agricultural College.

Two Governors of the West Indian Agricultural College, Professor J. B. Farner and Mr. G. Moody Stuart, who have been attending the meetings of the Executive Committee of that institution at Port of Spain recently, are due back in London in March, and it is expected that the experience which they have gained will prove of great value.

THE WEST INDIA COMMITTEE.

Eleven New Members Elected.

At a meeting of the Executive on February 16th, the eleven candidates whose names appear below were admitted to membership of The West India Committee:—

Names.	Proposers and Secondors.
Mr. J. H. Allwood (Jamaica).	{ Mr. Alfred H. D'Costa, Mr. E. A. de Pass.
Mr. J. R. McDowell (Montserrat).	{ Mr. O. G. Bladen, Mr. T. H. Kelsick.
Miss Lillian M. Penson, B.A., Ph.D. (London).	{ Mr. R. Rutherford, Mr. H. F. Previté.
Mr. W. F. Gouda (London).	{ Messrs. Lewis & Peat, Mr. E. A. de Pass.
Mr. G. R. Stevens (Jamaica).	{ Mr. R. Rutherford, Mr. E. A. de Pass.
Dr. J. Foreman (St. Kitts).	{ Mr. R. Rutherford, Mr. W. Gillespie.
Mr. R. P. Duggett (British Guiana).	{ Mr. John Macdonald, Mr. L. Lywood.
Mr. R. E. Rhodes (British Guiana).	{ Mr. John Macdonald, Mr. L. Lywood.
Mr. W. Macauley (British Guiana).	{ Dr. W. Hewley Wharton, M.R.C.S., L.R.C.P.
Mrs. Jessie A. Evered (Dominica).	{ Mr. James W. Gemmel, Hon. H. A. Alford Nicholls, C.M.G., M.D.
Mr. E. H. Aleock (Dominica).	{ Mrs. J. F. Johnson, Hon. H. A. Alford Nicholls, C.M.G., M.D.
	{ Mr. H. H. Vivian Whitchurch.

A SENSIBLE RUM CURE.

A correspondent of the *Evening News* pins his faith to rum as the ideal antidote to the prevailing epidemic of influenza. The result of the use of rum in his case was so startlingly successful that he felt it incumbent upon him to give his *modus operandi*. This, in the first place, consisted of laying in an adequate stock of old Jamaica rum at the first whisper of an approach of an epidemic of what in Barbados used to be called the "new sick." Here is his advice as to the use of the rum:—

"On rising each morning I take a small wine-glass of this comforting spirit—neat. Before venturing out I well moisten the inside of each nostril with neat rum, inhaling deeply through the nostrils and emitting through the mouth. I persevere with the nostril treatment during the day when likely to come in contact with 'flu' contagion. Whether rum applied in this manner reduces 'flu' microbes to an inoperative state through delirium tremens, or whether the microbes are rabid prohibitionists, and indignantly decline to operate in an uncongenial rum atmosphere, I do not know. The fact, so far as I am personally concerned, is that the 'flu' gives me a miss in baulk."

The writer adds that the only fly in his ointment is the "excessive price asked for old Jamaica rum."

BRITISH GUIANA'S FINANCES.

Relief Measures for the Sugar Industry

Introducing the Budget for 1922 in the Combined Court, on December 20th, the Hon. Cecil Clementi, Colonial Secretary, said that a deficit of some \$950,700 would have to be faced on the revenue and expenditure allowed for on the then current year. The whole of the Colony's Reserve Fund, as well as the balance of the Surplus and Deficit Account, had been absorbed in the actual loan expenditure, and there still remained a deficit of \$1,245,571 in the loan moneys available for financing loan work actually done; this deficit was met by means of overdrafts on the Crown Agents for the Colonies, on the Colonial Bank, and on the Royal Bank of Canada.

Turning to the 6 per cent. loan now being floated by the Colony, the Colonial Secretary said he hoped it would realise, if not the full five million dollars asked for, then at least set free a sum of \$500,000 for investment, after paying for all the loan works authorised. Investors might well consider the 6 per cent. bonds to be gilt-edged, for if the Executive's borrowing powers were fully utilised, the total appropriation from revenue in respect of loan expenditure would not amount to more than 9.7 per cent. of the actual revenue of last year. The Government proposed to repeal the Invoice Tax, which would relieve imports and exports of a tax of 1½ per cent. ad valorem, and the Profits Tax (Ordinance No. 4 of 1921), and to collect payments already due from sugar estates in respect of the latter by instalments. It was also proposed to suspend the Colonisation Tax, as well as assisting the sugar industry by placing bags, mules, shooks, and staves on the free list of imports. These measures would involve a loss to revenue of, altogether, \$628,543.

To balance this, the Government recommended (1) an increase on the surtax to 10 per cent. on imported goods under the First Schedule of the Customs Duties Ordinance (No. 32 of 1920), and 20 per cent. on those under the Second Schedule. (They stand at present at 5 and 10 per cent., respectively.) (2) An increase of the rum excise duty from \$8 to \$8.60 a gallon; (3) an increase in postal rates; (4) additional telephone charges; (5) higher rates for motor licences; (6) an increase in the duties on tobacco, both British-grown and foreign, it having been found that the revenue suffered owing to imports of this product from Canada, whereas it had not been anticipated that any would be brought to the Colony from British sources. It was believed that the above changes would bring in additional revenue of \$412,661. The deficit still remaining (\$453,000), the Government suggested, should be balanced by the imposition of an income tax. Of the \$500,000 required, only \$125,000 would be paid by the inhabitants of the Colony, the remainder being derived from incomes already taxed in the United Kingdom. The non-resident proprietors would not, however, pay twice over in respect of the same

property, so that the real effect would be that the Imperial authorities would assign to the Colonial Government that proportion of income tax paid to the Imperial Treasury which was in respect of property in the Colony.

Finally, Mr. Clementi urged, for the better stabilisation of the Colony's finances, that the Customs duties should no longer be imposed for a year only, as at present, but should be without limit of time, the necessary alterations being made as required, as in other Colonies.

OBITUARY.

MR. WILLIAM ROBERT SPENCE.

It is with great regret that we have to announce that Mr. William Robert Spence died at "Sunnyside," Silverdale Road, Westcliffe-on-Sea, on January 24th.

Mr. Spence, who has been more or less an invalid for several years, succumbed to an attack of bronchitis and pneumonia at the age of 74. Son of W. A. Spence, a Trinity Pilot, he was first destined for the sea; but British Guiana proved so attractive to him that he took up an appointment as overseer on a sugar estate there and remained in the colony—where he was a general favourite—for thirty-five years, retiring from the post of manager of Schoon-ord estate, on which he spent eighteen years of his life, in 1902. On retirement he came to England and took up residence with his sister, Mrs. Charles Spence, who died eight years ago, and her husband, and he was to the last a loyal member of The West India Committee. Mr. William Spence, whose memory will remain green among Demerarians of the older generation, was one of the most straightforward, kind-hearted, and honourable of men, and it is a sad coincidence that his death should have synchronised with the liquidation of the local company that had acquired the estate which he so ably and for so long managed.

MR. C. G. SEALE.

Another of the young men who came over from Barbados during the war to enlist has just passed away in the person of Mr. C. G. Seale. Joining the Prince of Wales Civil Service Rifles, this gallant young man served in France and was wounded in the wrist. After demobilisation he joined the firm of Leary and Co., but his health gave way and he died at Bournemouth on 20th January.

REFERENCE is made on page 92 of this issue to Major Ormsby-Gore's article in *The Times* on Jamaica. Further articles from his pen, dealing with the Leeward Islands and the Windward Islands, appeared on February 20th and 27th.

A WESTERN KIMBERLEY.

Diamond Boom in British Guiana.

In these days of depression it is comforting to know that there is one industry in our South American colony in a prosperous condition. That is the collection of diamonds, which is progressing by leaps and bounds, the presence of well-known diamond buyers in Georgetown being a stimulant to prospectors, who know that they can speedily market their winnings.

In evidence of this, the CIRCULAR is able to publish a striking illustration of a recent shipment of diamonds from Georgetown, British Guiana. It

depicts part of an actual consignment of these precious stones brought down to Demerara early in January, and purchased by Mr. Thorne, the local representative of Messrs. Lewis & Marks, Ltd. (the firm of that well-known philanthropist, the late Sir Bernard Oppenheimer, a life member of The West India Committee). The bottle, which will be recognised as a ginger-ale bottle, contained 4210.25 em., of a value of about £20,000. The match-box was also full of diamonds, forming part of a shipment of over 8,000 carats, valued at \$150,000, shipped by Mr. Thorne, who in one lot had already sent over 13,402 em., of a value of \$320,000.

It is not surprising to learn that everybody is now talking of diamonds in British Guiana, and that, according to the *Demerara Argosy*, over one thousand persons are now in the Mazaruni searching for the precious stones! Never before in the history of the colony has there been so much activity in the diamond industry, and not even in the gold boom did representatives of so many classes of colonists throw in their lot with the hard bushmen in the attempt to get rich quick. For the

photograph from which the illustration is reproduced the CIRCULAR is indebted to Mr. A. Hirsch, of Messrs. J. K. Gulland, Ltd.



Some Diamonds.

Match-box and bottle are filled with British Guiana diamonds purchased by Mr. Thorne in January last.

SIR JOHN HARRISON, C.M.G.

Sir John Harrison, C.M.G., who came over from British Guiana in the s.s. *Crynsen*, has just successfully undergone an operation in a nursing home at Tunbridge Wells. Sir John Harrison, who has been director of the Department of Science and Agriculture in British Guiana since 1905, is rightly regarded as a very distinguished scientist. His many friends in the West Indies and at home will wish him a rapid convalescence.

SUBSCRIPTIONS to The West India Committee became renewable on January 1st last.

THE WEST INDIAN CLUB.

Sir Gilbert Grindle Entertained.

Mr. R. Rutherford presided, on February 16th, at a dinner given by the West Indian Club in honour of Sir Gilbert Grindle, K.C.M.G., C.B., who was recently knighted.

Proposing Sir Gilbert's health, Mr. Rutherford said that their guest, after a brilliant career at Oxford, which included a "double first," had been appointed to a post in the Local Government Board. Fortunately for the West Indies, this only lasted three years, after which he entered the Colonial Office. Like Sir Charles Lucas and Mr. Arthur Pearson, Sir Gilbert had been head of the West Indian Department at the Colonial Office, and he had also been Private Secretary to that greatest of Imperialists, the late Mr. Joseph Chamberlain. Sir Gilbert's help and enthusiasm had also been of the greatest assistance to the West Indian Club, on the committee of which he had served for many years. Mr. Rutherford professed himself a great believer in the custom of officials of the Colonial Office coming into personal contact with the territories with which they had to deal, and he hoped that Sir Gilbert would himself pay a visit to the West Indies.

Replying to the toast, which was enthusiastically received, Sir Gilbert expressed his pleasure at the congratulations he had received from members of the club. It was all the more pleasant, as the bureaucracy was not popular just now, and few nice things were said about civil servants, especially by the Press. In that club they had the advantage of listening to many distinguished people. There were governors-elect who spoke of all the fine things they were going to do. There were governors on leave who spoke of the fine things they were doing; and there were governors home after their term of office who spoke of all the fine things they would have done had not some stupid and malevolent person prevented them.

Continuing, he said that he was glad he had been sent to the West Indian Department of the Colonial Office. It was said that one distinguished official, when asked by a subordinate how to proceed to meet some situation, always replied, "Take the usual steps." On one occasion, however, he was appealed to for directions in a matter which seemed to present unusual features of novelty, whereupon, after much pondering, he gave out, "Take the usual steps in special cases." In the West Indies there were no special cases. Whatever might befall, be it hurricane, earthquake, or bad harvest, there was a precedent for dealing with it. He feared that at present there was acute depression, but it was no worse than the West Indies had experienced—and weathered—before. Their products, sugar, cacao, oil, etc., were wanted in the markets of the world, and he could only regard the present trouble as a passing cloud. He would advise anyone who professed not to believe in the West Indies to realise the importance of Mr. Edward Wood's pronouncement regarding a ten years' guarantee of the rate of Preference given by the Mother Country.

A HONDURAS SPONGE INDUSTRY.

Mr. L. R. Crawshaw, the West India Sponge Research Officer, has sent a report to the Governor of British Honduras, in which he states that the superior quality of certain of the sponges received from the Colony last year points to the existence of a valuable fishery in British Honduras waters. The development of such a fishery could proceed along any of three distinct lines, namely (1) by opening the waters to sponge fishing generally, and encouragement of spongers, probably in most cases not natives of the Colony, to fish there; (2) by concession of the whole area or of separate areas to individuals desiring to carry out sponge fishing by the ordinary methods, but under supervision and control; (3) by reservation of the whole or part of the important sponge bearing grounds, so far as at present known, for the special purpose of artificial cultivation through the medium of concessions granted to persons approved by the Government of the Colony. Mr. Crawshaw does not recommend either of the first two methods.

Past experience in the Bahamas tends to show at every point, that any fishery of limited extent, if once it becomes the habitual resort of spongers seriously engaged in regular sponge fishing, cannot fail in a short time to suffer from depletion. It is doubtful whether even under a controlling authority, such as a lessee of any given area any exception to this would be likely to occur.

Sponges, as objects of commercial enterprise, cannot in fact be regarded as in the same category as other marine animals, for which the power of direct movement affords various ready means of escape. It is gradually coming to be recognised that in shallow waters like the sponge-fishing grounds of the West Indies, the prevailing methods of sponging are far from satisfactory. The chief difficulties of remedying them concern the interests of fishermen, who by long usage have grown dependent on those methods of fishing for their living, and sudden changes of method are naturally a hardship to them. The Colony of British Honduras appears to be in a specially favourable position in this respect.

Mr. Crawshaw suggests the reservation of a small area as a Government enclosure, a scheme which would soon repay the modest outlay needed. Sponge culture is still in the experimental stage, although its ultimate success is ensured.

The company present at the West Indian Club Dinner to Sir Gilbert Grindle on February 16th included:—

Mr. Algernon Aspinall, C.M.G., Mr. H. A. P. Cotton, Lieut.-Colonel Ivan Davson, G.B.E., Mr. E. A. de Pass, Mr. Harold de Pass, Mr. Alexander Elder, Mr. E. Bourke Ellis, Mr. F. Greenwood, Mr. E. M. Hall, Mr. F. J. Hansen, Mr. A. Hirsch, Mr. W. S. Jenkins, Captain Gilfred Knight, Captain G. Hudson Lyall, M.B.E., Mr. R. H. McCarthy, Dr. G. B. Mason, Mr. A. E. Messer, Captain F. F. C. Messum (Hon. Secretary), Mr. P. M. G. Mitchell, Mr. F. J. Morris, Mr. E. B. Phelps, Mr. H. F. Previté, Mr. A. Scaife, J.P., and Mr. F. H. Watson.

THE WEST INDIAN CHAMBERS.

The Associated West Indian Chambers of Commerce held an intermediate session in Port of Spain, Trinidad, on January 23rd-28th last.

The proceedings were inaugurated by Sir Samuel Wilson, Governor of Trinidad and Tobago, who cordially welcomed the delegates to Trinidad, and referred to the manifest advantages of such conferences. Sir Edward Davson then assumed the chair and delivered an inspiring presidential address, after which the business of the conference was begun.

At the outset, resolutions of regret at the death of Hon. Adam Smith, C.M.G., and Mr. Edgar Tripp were passed unanimously, all members standing. A discussion then took place regarding trade relations with the Mother Country, to which the President, Mr. Albert Cipriani, M.B.E.; Hon. Donald McDonald (Antigua), Mr. Paul Cressall (British Guiana), Mr. Yearwood (St. Kitts), and Mr. G. F. Huggins contributed, and resolutions were passed favouring a trade agreement with the Mother Country, and adding that: "Inasmuch as the present rate of preference granted by Great Britain is 16.2-8 per cent. of the full duties, and as those granted by the West Indian Colonies range from 83½ to 50 per cent., this Association respectfully suggests to the Secretary of State that, in view of a gradual reaction in duty, when the actual amount of preference may diminish to a negligible amount, His Majesty's Government should consider the desirability of guaranteeing the continuance of the preference at the existing amount for the said period."

A resolution was also passed urging the doubling of the existing preference in the Mother Country "for a period of not less than twelve months in order to enable the sugar industry to tide over the present period of adversity and to prevent the unemployment of the people in the sugar growing Colonies, which must arise through the inability to continue the cultivation of estates."

Similarly, the doubling of the Canadian preference in Canada was advocated.

A claim for preference for arrowroot, and an increased preference on cacao in the United Kingdom was submitted by Mr. V. Richards (St. Vincent) and Mr. R. C. Fitt (Grenada), and a resolution was passed expressing the desire that some beneficial measure of relief might be conceded to those industries.

On the subject of steamship communication, the association reaffirmed the desirability of establishing a satisfactory and efficient British passenger service between the United Kingdom and the West Indies, but regrets that the present time is not favourable for the contribution of a substantial subsidy from these Colonies. They also advocated periodical calls by Elders and Pyffes' steamers at Barbados on their way to Jamaica, and suggested the possibility of arrangements being made with the Harrison Line (which, it will be recalled, put their passenger steamers on the West Indian route at the request of The West India Committee) for a

regular monthly sailing to and from Barbados, Trinidad and British Guiana.

A resolution on the cable position supporting the suggestion of The West India Committee, and adopted in principle by the Imperial Cable Conference, and also by the Governments of Canada and the West Indies in the declaration appended to the Trade Agreement of June 18th, 1920, in favour of laying a cable from Bermuda to Barbados, Trinidad, and British Guiana, and linking up the islands by wireless, was adopted.

The intricacies of income tax legislation were next discussed by Mr. R. C. Fitt and Mr. G. F. Huggins, and the desirability of securing uniformity in respect of it—an object within reasonable sight of attainment, it being understood that the Inter-departmental Committee which was set up at the suggestion of The West India Committee is proposing to draft a model income tax Bill for consideration in all the colonies not possessing responsible government.

Sir Edward Davson next gave a résumé of the history of the proposed Central conference, which he said had fallen through owing to a misunderstanding. British Guiana and Barbados had stood out, but the Windward Islands, which were believed to have done the same, had, he was informed when passing through those islands, not done so after all. The scheme had nothing to do with any question of confederation, but was intended to set up a central body with a secretariat (which might be maintained out of the profits of the seigniorage if the West Indies established their own coinage) to discuss matters of common interest in commerce and regarding health, laws, etc., and a resolution inviting the members to keep the matter before their Governments was seconded by Mr. H. B. G. Austin (Barbados), supported by Mr. McDonald (Antigua), Mr. Fitt (Grenada), and other delegates, and carried unanimously.

The Hague Rules were then discussed and approved, and the delegates turned their attention to the question of freight rates, which were condemned by Mr. Richards, Mr. Cipriani, Mr. McDonald, Mr. Austin, and Mr. Cressall, while Mr. Huggins explained the position of the ship-owner, pointing out that the position of the West Indies could not be compared with that of West Africa, which could offer larger and more regular shipments. The resolution was, however, carried unanimously.

A resolution was then passed inviting The West India Committee and the British Empire Producers' Organisation to investigate the complaints of the refiners that they were experiencing delay in obtaining drawbacks of duty, and that the exporting confectioners objected to purchasing preferential sugar, since they only received drawback at the preferential rate, and the conference was brought to a close by the re-election of Sir Edward Davson as President, on the motion of Mr. H. B. G. Austin, and the election of an Executive Committee comprising the Presidents of the Trinidad, Barbados, and British Guiana Chambers, and the Hon. D. McDonald, Hon. D. S. De Freitas and Mr. John Barclay (Windward Islands).

WEST INDIES AT WESTMINSTER.

Laggard St. Lucia.

Mr. Parker, replying to Lieut.-Colonel the Hon. Cuthbert James, on February 28th, said that he regretted that no annual report for St. Lucia had been received since that for 1915-16, but he was taking special steps to secure the publication of an up-to-date report on this Colony.

Revenue from Beet.

Sir Robert Horne (Chancellor of the Exchequer) informed Mr. C. White, on February 16th, that the revenue derived from the Excise Duty on home-grown sugar during the current financial year was approximately £88,000 to January 31st last. The rate at which the duty was levied per ton was five-sixths of £23 6s. 8d. on sugar polarising at over 98 degrees, and proportionate rates on sugar of lower polarisation.

Revenue from Rum.

Mr. Hilton Young (Financial Secretary to the Treasury), replying to Lieut.-Col. James on February 28th, said that the net revenue derived from the Customs duties on rum in the years referred to was as follows:

	Imitation		Total.
	Rum.	Rum.	
	£	£	£
Year ended 31st Mar., 1913	2,381,298	6,823	2,388,121
" " " 1919	2,971,147	3,199	2,974,346
" " " 1920	9,181,584	6,717	9,188,301
" " " 1921	9,961,927	3,116	9,965,043

Retail Prices of Sugar.

Dr. Macnamara (Minister of Labour), in reply to Major Barnes on February 9th, supplied the following table showing the average retail prices of granulated sugar in the United Kingdom since the beginning of the war.

	£.	d.		£.	d.
July, 1914	0	2	Dec., 1919, to March, 1920	0	8
8th August, 1914	0	32	April and May, 1920	0	10
September, 1914	0	34	June, 1920, to Nov., 1920	1	2
October, 1914	0	32	December, 1920	0	10
Nov., 1914, to Sept., 1915	0	34	January, 1921	0	9 1/2
Oct., 1915, to Jan., 1916	0	4	February, 1921	0	9
February, 1916	0	44	March, 1921	0	8 1/2
March, 1916	0	44	April and May, 1921	0	8 1/2
April, 1916	0	44	June, 1921	0	7 1/2
May, 1916, to August, 1916	0	32	July, 1921	0	7 1/2
Sept., 1916, to May, 1917	0	32	August and Sept., 1921	0	7
June, 1917	0	32	October, 1921	0	6 1/2
July, 1917, to April, 1918	0	6	Nov. and Dec., 1921	0	5 1/2
May, 1918, to Nov., 1919	0	7	January, 1922	0	5 1/2

Cost of Living in Jamaica.

Mr. Winston Churchill informed Mr. W. Graham, on February 14th last, that the Governor of Jamaica had appointed a Committee to report on the index figure of the cost of living in the island. He did not know to what extent publicity had been given in Jamaica to the Report in question, but it had been communicated to a local Whitley Committee appointed to advise as to the necessity of regrading public officers' salaries at the present time, and he understood that, on the receipt of the Report of that Committee, which had been published locally, a Commission had been appointed to consider the whole question of the remuneration of Government officers in the colony.

The Preferential Undertaking.

Mr. Churchill, replying to a question by Sir S. Hoare, on February 23rd, said: "The announce-

ment by the Parliamentary Under-Secretary of State for the Colonies (in Trinidad on January 28th), represents in substance the policy which His Majesty's Government propose for the acceptance of Parliament, namely, an undertaking to the West Indian Colonies that the preference on goods at present entitled to preferential rates on importation into the United Kingdom shall be continued for 10 years. The undertaking would be that the Customs Duties on such goods, other than spirits, shall bear to the duties on similar goods imported from foreign countries the proportions prescribed by the Second Schedule of the Finance Act, 1919, and that the Customs Duties on spirits shall be lower, by not less than 2s. 6d. per proof gallon, than the duties on foreign spirits of a like kind.

"His Majesty's Government do not consider that it will be necessary to make any formal agreement with the West Indies. They assume that the West Indian Colonies will continue to accord preference to goods of the Mother Country throughout the period. The proposal for an undertaking to the West Indian Colonies is due to the representations made to His Majesty's Government that the introduction of further capital is necessary to maintain and develop the main industries in the West Indies and that the raising of this capital will be greatly facilitated if the producers can be guaranteed that the preference which they enjoy in the United Kingdom market will be assured to them over a definite term of years.

"I ought to make it clear that there is no intention of giving less favourable treatment to goods imported into the United Kingdom from any other part of the Empire during the 10 years in question."

The Kelham Beet Factory.

Sir A. Boscawen (Minister of Agriculture), replying to Mr. Royds on February 22nd, said that the present financial position of the sugar beet factory at Kelham gave cause for anxiety. Owing to the high cost of erecting the factory the company had exhausted their capital by the end of last year, and the directors had applied to the Government for permission to borrow a further amount up to £200,000 in priority to the second mortgage held by the Government, and for a remission of the Excise Duty on home-manufactured sugar. The application of the company had been referred to a special Committee appointed by the Ministry in conjunction with the Treasury, under the chairmanship of Sir William McIntock. The Committee had recommended that permission should not be given to the company to raise further money to rank before the existing second mortgage, and in regard to the Excise Duty they had pointed out that its remission would amount to a subsidy on beet growing at the rate of £24 an acre. The Government had decided to act on the Report of the Committee and the directors of the company were considering the whole position, but owing to the high costs of production in this country at present they had suspended entering into any contracts with farmers for the growing of beet this season. The Government held £250,000 in shares in the company, which was half the issued capital, and had also advanced a loan of £125,000 to the company on a second mortgage, subject to a prior charge of £40,000 for cash advanced by the company's bankers. The Government also guaranteed a dividend of 5 per cent. per annum on the 250,000 shares subscribed by the public for the 10 years ending March 31st, 1930, but this guarantee ceased if the company went into liquidation or ceased to manufacture sugar.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

Mauritius has made the acquaintance of some sixty varieties of canes, many of which have entirely disappeared, due to the attacks of fungoid and insect pests, and of rats.

* * *

The history of "sugar boiling" in England dates back to 1544, when two refineries were in operation. In 1659 German workmen were engaged for the work, monopolising it until the end of the nineteenth century. The Clyde refining industry started in 1669, and in 1688 there were upwards of 50 refineries at work in the United Kingdom.

* * *

The Naparima district of Trinidad contains deposits of selenite, the crystalline form of gypsum. Occasional pockets of this mineral exist within easy reach of the surface. In view of the important position which gypsum holds in the manurial treatment of clay soils, it would probably be found worth while to mine the Trinidad selenite and prepare it for application to the local soil by calcining.

* * *

The land laws of the Philippines provide that no corporation may own more than 1,000 acres of land. This has developed the Central Factory system in these islands, having led to the formation of the Central Milling Company, which erects the factory and contracts with the planters. The planters receive, as a rule, 50 per cent. of the sugar produced, or the equivalent, in payment for their canes.

* * *

Carbon bisulphide is of great use as an insecticide, and Mr. W. E. Hinds, of the Alabama Experiment Station, has recently classified the conditions of its use. These are (1) species that live underground on the roots of plants, or that nest in the ground; (2) species that attack various stored products, such as grains, peas, etc.; and (3) insects that cannot be attacked satisfactorily by spraying, together with various wood borers, which cannot be reached with solid or liquid poisons, but only with vapours.

* * *

The present population of the world is about 1,700,000,000, of which 550,000,000 are white and 1,150,000,000 coloured. Before the war, the population of Europe was 450,000,000—that is to say, four-fifths of the entire white race was concentrated on less than one-fifth of the white world's territorial area. Of the coloured population, the yellows number over 500,000,000, the browns 450,000,000, and the blacks 150,000,000. The reds, belonging to the Western Hemisphere, only add up to 50,000,000.

* * *

The Louisiana Planter states that in Porto Rico, a field of 14½ acres planted with a new variety of cane, developed in Saint Croix by Dr. Longfield Smith, yielded 903.76 tons of cane, which gave 120.47 tons of 96 deg. sugar, or 8.8 tons to the acre. From another area of 47 acres on the same estate, 6.8 tons of sugar per acre was obtained from twelve-months-old canes. It is not mentioned whether the

tons were short or long, but the return is phenomenal in either case for a West Indian Island.

* * *

In the course of a lecture delivered before the Automobile Club of Queensland, Mr. I. R. Henderson, the Government Analyst, said, with regard to the production of alcohol from sweet potatoes, that by careful cultivation a yield of at least 20 tons of the latter per acre could be secured; that only one sweet potato disease or pest was known, viz., the weevil; and that one ton would yield about 85 gallons of alcohol. The cost of potatoes per gallon of spirit Mr. Henderson put down as being 7d., and of the distilling operations 5d.

* * *

The Australian Sugar Journal, in its November issue, reproduces a photograph of a remarkable Papuan cane, known locally under the name of Paile. A distinguishing feature of it appears to be its great length, associated with an upright habit. The Journal states that the Australian sugar industry has been to much expense in collecting native sugar canes from various parts of Papua, and that, while a large proportion of these have proved valueless, on the whole the enterprise has been highly remunerative.

* * *

During the last two years, experiments have been conducted in Australia with the view of discovering a cheap and satisfactory method of extracting oil from shale, of which there are considerable deposits in that country. The results have been satisfactory, as much as 160 gallons of crude oil being obtained from a ton of shale. The scene of the operations is 90 miles from Sydney, near Mittagong, and the shale field is said to cover an area of 6,000 acres. The quality of the oil is excellent.

* * *

Metals, like human beings, become tired after prolonged monotonous exertion, and require rest. A piece of metal, for instance, which is subject to constant vibration will gradually lose its strength, but will recover it again if allowed to remain quiet. The fatigue testing of metals is, therefore, a matter of great importance. It is, indeed, more important to know at what stage a piece of metal becomes overtired, and in danger of collapse, than to know its hardness or its elasticity. The Australian Sugar Journal states that an ingenious apparatus has been devised by which the results of a "fatigue test" can be obtained in a few minutes.

* * *

Mr. T. W. Crawford has been using fertilisers on the cane-lands of his Queensland estate for a number of years in such a manner that the crops now are as good as they were when the soil was virgin. He states that for plant canes the system he employs is to distribute 5 cwt. of "meatworks" manure per acre in the bottom of the drills when planting is done. Four to six months after planting, a dressing of 1½ cwt. of sulphate of ammonia is applied. Ratoons are given one or two applications of sulphate of ammonia, at the rate of 1½ cwt. per acre, with frequently from 4 cwt. to 5 cwt. of "meatworks."

THE WEST INDIES REVISITED.

By ALGERNON ASPINALL.

(Continued from page 80.)

The Story of Panama.

Vasco Nunez Balboa was the first European to set eyes upon the Pacific. Fearing that his reputation might suffer through evil reports about his conduct being disseminated in Spain by Enciso, his predecessor in command of the colony of Darien, he determined to embark upon some great enterprise in order to win the favour of his sovereign. Consequently, with 100 Spaniards and 1,000 natives, he started forth across the Isthmus to discover the new seas, and the gold of Peru, of the existence of which he had heard from a cacique. After a tramp of many days over mountains and through almost impenetrable forests, his efforts were rewarded. On 29th September, 1513, Balboa—and not Cortez as the poet has it—

“with eagle eyes

... stared at the Pacific—and all his men

Look'd at each other with a wild surmise—

Silent, upon a peak in Darien.”

Descending to the shore, he named the ocean the “Great South Sea,” and took possession of it on behalf of Spain.

The discovery of Peru by Pizarro in 1526 followed, and when the wealth of the new territories on the Pacific began to be developed, the mule track across the Isthmus, known as the Gold Road, became vastly important, much valuable treasure being carried over it to Chagres year in and year out.

The Isthmus of Panama was included in the Viceroyalty of Granada, and shared the vicissitudes of Spain's possessions on the Spanish Main—which, it should be pointed out, is the North shore of South America, and not, as many suppose, the high seas. Liberated from the Spanish yoke by Simon Bolivar, Panama eventually became an integral part of the Republic of Colombia.

The subsequent history of the country is closely wrapped up with that of the Panama Canal. The possibility of piercing the Isthmus was first considered by Spain in the days of her greatness and pride, when she was anxious to find a short trade route to the East Indies. Her Ministers found, however, that the neck of land helped her to protect her possessions in Peru, and consequently they shelved the idea of making a canal.

It was not until the nineteenth century, when the United States began to feel the need for communication between her eastern and western seaboards, that the question of an Isthmian canal was seriously revived. For a while the construction of a canal through Nicaragua was favoured. The Atlantic terminal of this would have been in a country over which Great Britain had long exercised control, and in 1850 the famous Bulwer-Clayton Treaty was signed by Great Britain and the United States, which provided that neither Government should ever obtain nor maintain for itself any exclusive control of any canal connecting the Atlantic and the Pacific, nor erect fortifications protecting it.

A Corpse for every Sleeper.

The rush of gold-seekers to California in 1849 led to the construction of the railway across the Isthmus of Panama, of which mention has already been made. Stevens secured a concession for the line from the Government of New Granada, and work upon it was commenced in 1850. The sickness and mortality among the labourers owing to the ravages of yellow fever and malaria were simply appalling, and it is said that for every sleeper of the railroad, one victim of disease was buried in the cemetery of Monkey Hill—now more happily named Mount Hope. Nevertheless, the railroad was completed, and in 1855 the first train crossed the Isthmus from Aspinwall, as Colon was then called, on Manzanillo island to Panama city.

Various canal schemes were now actively discussed, but it was not until the completion of the Suez Canal in 1869 that they assumed definite shape. Then the French engineer and financier Ferdinand de Lesseps came on the scene. He summoned a Congress in Paris in 1879, and two years later the *Compagnie Universelle du Canal Interocéanique de Panama* was floated. The railway was purchased by that concern for \$25,500,000, and work was begun in 1881 on a sea-level canal. An immense quantity of valuable machinery was sent out, and the French engineers set about their task with the wonderful skill and perseverance to which their successors afterwards bore testimony. Owing, however, to the magnitude of the task and to peculation and fraud, the company was unable to stand the strain, and after spending \$300,000,000 it went into liquidation in 1889. The New Panama Company was formed to take over the assets, including the railway, which they continued to work; they also proceeded with the excavation, to some extent.

The war with Spain in 1898 gave the United States a further object-lesson of the need for a canal, one of her vessels, the *Oregon*, having to make a perilous voyage of 19,000 miles from the Pacific round the Horn to the Atlantic to join the main fleet. So a Commission was appointed to consider what would be the best route for a canal “under the control, management, and ownership of the United States.” It favoured a Nicaraguan Canal, considering that the price asked for its plant and good-will by the New Panama Canal Company, whose works, including the railway, they valued at \$40,000,000, was excessive. Realising how futile it would be to compete with a Government-owned canal, the New Panama Company immediately offered to sell at that price, and the purchase was duly authorised by the “Spooner” Act of 1902. By the Hay-Pauncefote Treaty of 1901, Great Britain had waived the right of joint control, it being agreed that the canal should be “free and open to the vessels of commerce and of war of all nations . . . on terms of entire equality,” and all that remained was for the United States to make a satisfactory arrangement with Colombia.

A treaty was thereupon negotiated whereby the United States agreed to pay \$10,000,000, and an annual rent of \$100,000 after nine years for a strip of land across the Isthmus. Colombia, however,

refused to ratify, and a few days later Panama declared her independence. Hostilities appeared to be imminent; but at this juncture the United States intervened. By a singular coincidence her warships were lying on either side of the Isthmus, and, anticipating the policy of "self determination for small nations" of later years, they assisted the Panamanians very materially by refusing to permit Colombia to land troops. Consequently Panama won the day. Her independence was immediately recognised by the United States, and within a few months a treaty was negotiated with the new-born Republic and ratified, by which the Canal Zone was leased to the United States for \$10,000,000, and an annual payment of \$250,000 after nine years.

As soon as these little political difficulties were out of the way, the United States appointed a Commission to undertake the organisation and management of the enterprise; and in 1908 tenders were invited for the construction of the canal. These, proving, however, unsatisfactory, President Roosevelt decided that the Government should carry out the work, which was accordingly placed under the immediate control of the Corps of Engineers, with Major (afterwards General) G. W. Goethals as the presiding genius.

Thereafter material was rapidly assembled, and a small army of sanitary experts descended on the Isthmus and at once proceeded, with characteristic thoroughness, to clean up that Augean stable.

The undertaking was a vast one. The engineering difficulties that had to be faced were admittedly considerable, but they were not greater than the French engineers could have mastered. What really defeated de Lesseps and his colleagues were the terrible health conditions, which decimated the labour force, and shoddy finance. If these two disadvantages had been eliminated, the French would, no doubt, have completed the Canal just as successfully as the Americans have done. It was not, however, until after the Spanish-American war that practical use was made of the discovery of Manson and Ross that the *anopheles* mosquito was the carrier of malaria, and those of Reed, Carroll, Lazear and Agramonte, who had proved that the *stegomyia* was similarly the communicating agent in the case of yellow fever.

Colonel Gorgas, who, by the enforcement of rigid sanitary measures, and the prosecution of a ceaseless warfare against mosquitos, had completely rid Havana of "Yellow Jack" shortly after the termination of hostilities, was sent to Panama on a similar mission. This he carried out so effectively that in an incredibly short space of time the Canal Zone was transformed from a pestilential and reeking hot-bed of disease to the health resort it now is—incidentally furnishing a striking object-lesson to the neighbouring British Colonies as to what could be done by the adoption of modern sanitation and by screening houses and vats against mosquitos. The question of finance was more easily solved, for it soon became clear that money was of no object to the United States Government, who were determined to see the business through, whatever it might cost them.

British "Silver Employees."

British West Indians, attracted by the handsome wages offered to them, now flocked to Colon, and though they had a reputation for not being particularly fond of work in their own islands, it will redound to their everlasting credit that it was they—to the number of some 40,000 or more—who performed the lion's share of the manual labour involved in making the "Big Ditch." Dubbed "Silver Employees," to distinguish them from the more highly paid white engineers and managers, who were called "Gold Employees," they had never been better looked after in their lives than they were during the construction period, and it must be said for them they responded to this treatment by giving of their best.

For seven long years the great work proceeded, by night as well as day, under the supreme control of that unique organising genius Goethals, and it must have been a proud moment for all concerned when, on October 10th, 1913, the final obstruction in the Canal was blown up by a vast charge of dynamite, ignited by an electric current set in motion by the then President of the United States, Mr. Woodrow Wilson, at Washington, 2,000 miles away.

If you ask them what the direction of the Panama Canal is, nine people out of ten will reply, "East and west." That is entirely wrong, for it actually runs north-west to south-east, and newcomers to Panama City are consequently not a little surprised when they see the sun rising from the Pacific Ocean, instead of from behind the mountains of Panama, as they expect it to do.

The French originally proposed to make a sea level canal, and as the tide of the Pacific has a fourteen feet greater rise and fall than that of the Atlantic, there was a good deal of speculation as to what would happen when the waters of the two oceans were united. The Americans, however, eventually favoured a high level canal, involving the construction of locks to lift vessels over the backbone of the Isthmus. So the Chagres River was dammed at Gatun, forming a lake, to which vessels are raised by a flight of three locks. Thence they pass through an immense cutting—the famous Culebra Cut—on emerging from which they descend to the Pacific by three more locks, one at Pedro Miguel, and two at Miraflores, the total distance traversed being 50½ miles from deep water in the Atlantic to deep water in the Pacific, or 40 miles from coast to coast.

(To be continued.)

The *Journal des Fabricants de Sucre*, in its issue of February 18th, compliments those "savants spécialistes bien connus," Mr. Llewellyn Jones and Mr. F. I. Scard, on their work, "The Manufacture of Cane Sugar," recently published by The West India Committee, to which it adds a word of praise for the appearance of the volume, stating: "L'ouvrage est imprimé avec luxe et fait grand honneur aux éditeurs et au Comité des Indes occidentales britanniques, sous les auspices duquel il a été publié. Nul doute qu'il ne soit fort apprécié dans les cercles sucriers coloniaux."

JAMAICA GOVERNORS.

BY FRANK CUNDALL, F.S.A.

(Continued from page 81 and concluded.)

IX.—Sir Hender Molesworth.

Leslie, in his "New History of Jamaica," says of Molesworth:—

"This Gentleman behaved to the universal Satisfaction of the Island; his Department was courteous, he was easy of Access, given to no Vice or Extravagance, and effectually recommended himself to every one by a sincere upright Conduct: In his Time the Laws were well executed; Trade revived, and the Colony was at Peace, and happy: He was a Man of moderate Principles, nor expressed any manner of Disregard to those who differed from the established Opinions. The Jews began about this time to make a considerable Figure, their Numbers daily increased, and as they understood Trade better than any of the Planters or Merchants could pretend to do, the Governor found it necessary to encourage that People: They were allowed many Privileges, and had a Permission to erect Synagogues, and perform Divine Worship according to their own Forts."

On his arrival, Albemarle tried to make Molesworth give security to the extent of £100,000 in respect of treasure from "the wreck," in spite of which Albemarle forcibly took from the ship on which Molesworth had put them, certain chests of plate and coin for the King's tenths of the wreck. Molesworth was to have sailed for England on the 12th of May, 1688, but the Governor detained him. He protested, and the King gave him leave to return. In October he was home, and on petition was relieved of his bond of £100,000.

On November 30th, 1688, the King wrote to the Deputy Governor, Sir Francis Watson, that, having heard of Albemarle's death, he had ordered Lieutenant-Governor Molesworth to repair to Jamaica and assume the government. Things relating to the Government were to be restored to the state in which they were on the Duke's arrival, and on the 11th of January the Prince of Orange wrote to the President of Jamaica announcing that he had taken on himself the administration of England, and that he appointed Hender Molesworth Lieutenant-Governor, and all officers were to be restored as they were before the arrival of the Duke of Albemarle.

In April, Molesworth wrote to the Earl of Shrewsbury, asking that Beckford should be reinstated at Port Royal:—

"Jamaica is close to Tortudos, Petit Guavos, and the Isle of Ash, where French privateers abound and can reach it in two days. The safety of Port Royal depends much on the vigilance of the officers of the place and the commanders of the forts."

In May, the following reasons for sending Colonel Hender Molesworth Governor to Jamaica were submitted by the Earl of Shrewsbury to the Lords of Trade and Plantations:—

"1. Such is the King's direction of 22 February last. 2. It is desired by all the merchants and planters concerned in Jamaica. 3. He is a man of interest and estate in the Island. 4. He is esteemed by the inhabitants, as is shown by the fact that seventeen men came forward to be his security when that hardship was put on him by the Duke of Albemarle.

5. He proved his fitness in his three years of successful government. 6. His knowledge of the people makes him better qualified than a stranger to select good officers. 7. A popular Governor is wanted after the arbitrary rule of the Duke of Albemarle. 8. The trade with Spain, which was ruined and destroyed in the Duke's time, can only be retrieved by Colonel Molesworth. 9. He knows the interests of the French and Spaniards in the West Indies, which will be of great advantage at the present time."

On the 13th June, Shrewsbury wrote that the King had appointed Molesworth Governor of Jamaica, and the Lords of Trade and Plantations were to prepare his despatches. In the same month he offered various suggestions for the improvement of matters at Jamaica, which were duly considered. On the 8th of July, 1689, an order passed for his commission as Governor to be issued, and on the 19th he was created a baronet by William III., being the first baronet created by that monarch; but he died on the 12th of August. His elder brother John, the second baronet, died in the same year. Hender Molesworth's first wife was Grace, daughter of Captain George Mangye, widow of Thomas Tottle, Receiver-General of Jamaica. She died in August, 1687, and lies buried in the Church of St. Anne's, Soho, where there is a handsome monument to her memory, for the erection of which Molesworth left £40. He married secondly, at St. Martin's-in-the-Fields, on the 12th of February, 1688-9, Mary Temple, widow of his friend, Sir Thomas Lynch. She was then twenty-two years of age. She lost by her marriage her interest in her husband's Jamaica properties, and retained only £200 and his house in "Lester Fields." She died in July, 1721, leaving instructions that she should be buried in St. Ann's, Westminster, "near my late husband."

Molesworth's arms, as given on his first wife's monument in St. Anne's, Soho, were: Gules an inescutcheon vair between eight cross crosslets, or the same as those borne by the Viscounts Molesworth of Swords, County Dublin.

His will is recorded at the Record Office, Spanish Town. It is dated 2nd April, 1689, with a codicil executed the following day. To his wife, who was otherwise provided for, he left his household goods and his jewels, including the ruby ring which he wore in memory of Colonel Colbeck, also the property Cow Park in St. Catherine. To his godson, Fortunatus Dwards, he left his property, Golden Grove, in St. George's. He left £50 to his friend Colonel William Beeston, and £20 yearly for life to Captain George Mangye, the father of his first wife.

The world's production of commercial cotton for 1921-22 is estimated by the United States Department of Agriculture to be 15,593,000 bales of 500 lbs. gross weight. This is the smallest on record for the 21 years that the Department has been publishing records, and the quality is considerably less than that of the 20,773,000 bales of 1920-21. The United States and Egypt will this year only produce 61.4 per cent. of their previous crops.

*See page 15.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Bahamas and the Empire Exhibition.

The Legislature, after sitting for nearly a year, was prorogued on January 16th. The Chamber of Commerce will ask the Government for a grant of £5,000 for the purpose of participation in the British Empire Exhibition, 1924. It was suggested that a Submarine Film Co. be asked to prepare a motion picture showing the marine life of the Colony for this object.

Barbados Sugar Plantation Sales.

Mr. J. H. Wilkinson, writing on February 1st, states that, in spite of the depression, there still seems to be some demand for sugar estates in Barbados. Spencer's Plantation, (526 acres), in the Parish of Christ Church, was sold at the end of January to Mr. J. S. Williams for £11,800, and Rugby Plantation, St. Thomas, has been bought by Mr. T. B. Lashley for £5,050. The reaping season is in full swing. Fortunately, most of the factories are independent of the Government water supply, for the Government have notified factory owners that owing to the diminution of the supply and the increase in demand, they will not be able to let any factories have water this season.—Captain G. B. Evelyn has been appointed to command "B" Company of the Barbados Volunteers in succession to Captain J. B. Howell, who has retired.

The Cayman Islands' Report.

The tardy publication of the Annual General Report of the Cayman Islands for 1918-19, which is just to hand, brings these remote communities once more into the light of day. His Honour H. H. Hutchings, the Commissioner, states that the commercial and social life of the islands appear to have been little disturbed by the world war, but they became in the period under review (October 1st, 1918, to September 30th, 1919), more and more affected by influences from outside. United States gold and notes, which largely constituted the circulating medium, rapidly disappeared, and business arrangements were upset.

There is no immigration, but emigration to the southern ports of the United States, whilst not great, is steady. Labourers from the islands who find employment in Cuba return to their homes about twice a year. The health of the people is stated to be good, but the absence of the anopheles is counterbalanced by the activity of the culex mosquito.

The value of the imports from all countries in the year under review amounted to £44,828, an increase of nearly £7,000 on the figures for the preceding year. If one excepts the building of small vessels, which are occasionally sold abroad, the making of thatch rope from the leaves of a palm indigenous to the Islands is practically the only industry with an export. A total of 1,196,000 fathoms of this rope, valued at £1,836, was shipped during the year, 95 per cent. going to Jamaica.

The financial position of the Dependency is sound, the balance of assets at the close of the year standing at £3,796, and there is no Public Debt.

Georgetown, Grand Cayman, is proud of being a port of registry, and has 52 vessels on its register. No steamships, however, other than war vessels, visit the Dependency, and intercourse with the outside world is maintained by small trading schooners which voyage to Jamaica, Cuba and the Gulf ports. Mails

are irregular, and in 1919 there was a period of forty-three days of isolation. There are only two carriage roads in the Dependency, the usual means of locomotion being by horseback riding along the bridle-paths which connect the various localities.

The Transfer of the Demerara Railway.

Mr. J. V. Fitzpatrick, writing on January 10th, records a decided improvement in the weather. The Government have announced their intention of introducing into the Court of Policy a Bill on the lines of recent legislation in Jamaica to provide for a loan of \$1,000,000 from the Colonial Bank and the Royal Bank of Canada for two years for the purpose of financing the sugar industry. It is proposed that advances should be made through a Board of Control, including, in addition to officials and the Bank managers, Hon. A. P. Sherlock, Hon. R. E. Brassington, and Hon. F. Dias. The proposal has come as a great relief to locally owned estates.—Having taken over the control of the Demerara Railway from January 1st, the Government have decided to reduce the surcharge on the tonnage rates on sugar estates produce and stores from 35 per cent. to 25 per cent.

Asphalt for Jamaica's Capital.

The municipal authorities of Kingston are considering a project to improve the condition of the roads by paving them with Trinidad asphalt.—The death is recorded of Mr. Charles Malabre, J.P., a much respected business man. Mr. Malabre was the local agent of the Leyland, Harrison, and White Star Lines, director of many Companies, and for twenty-five years the Consul for France.—The proposed fusion of the parish of St. Andrew with Kingston, in favour of which a resolution was recently passed in the Legislative Council, has led to indignant protests among St. Andrew taxpayers, and a public meeting at Mavis Bank was marked by heated passages between Sir Alexander Swettenham and Major Dixon, Member for the Parish, who eventually left the meeting.

At a meeting on January 10th of the Rum and Sugar Committee of the Jamaica Imperial Association, Mr. F. L. Clarke and Mr. W. Morrison urged that rum might also form the subject of representations on the part of the delegates proceeding to England from the sugar growing Colonies. Mr. A. W. Farquharson, the Jamaica delegate, replied that as regards rum, the position of Jamaica was a peculiar one, and ought to be dealt with by the Jamaica delegate alone. Mr. P. C. Cork pointed out that rum was treated in the same way in England as whisky, and it would be impossible either to obtain a reduction in the rum duties, leaving those on other spirits untouched, or to persuade the Chancellor of the Exchequer to sacrifice a considerable amount of revenue by reducing the duties on all. Mr. Horace Myers said that, owing to the duties imposed in England, better prices could be obtained for Jamaica cacao from other countries, and the same thing applied to coffee and tobacco.

The Montserrat Cotton Crop.

Mr. K. P. Penchoen wrote on 16th January that all ginning of cotton was expected to be finished that month, but with the exception of a shipment on the part of growers who required advances, the crop is being stored in the Island awaiting the disposal of last year's crop. Planters were then busy destroying old plants.—The Governor paid a short visit to Montserrat in December on his way to Dominica, and it is believed that His Excellency intends to pay a visit of some duration shortly.

Mr. Edward Wood in St. Lucia.

Mr. Wood and his party reached St. Lucia on Sunday, January 8th. The next day he received a number of deputations, starting with one from the Representative Government Association, led by Mr. I. T. Augier McVane. In the afternoon Mr. Wood, Major Ormsby-Gore and Mr. Wiseman went to Columbus Square, where they were presented with addresses by Mr. T. G. Westall, Chairman of the Castries Town Board, Hon. George Williams, President of the Agricultural and Commercial Society, and Mr. George Cooper, representing the Friendly Societies. On the 10th Mr. Wood gave an audience to the Unofficial Members of the Legislature in the Council Chamber, and after a visit to Soufrière, in a motor launch, left the Island on the 11th.

St. Vincent's Pensioners.

At a meeting of the Legislative Council on January 23rd, the unofficial members pressed various measures of retrenchment, and the temporary increase of 25 per cent. for pensioners in the United Kingdom and 10 per cent. for others was accordingly reduced by half. The recent increases in the salaries of public officers were also curtailed. *The Sentry* announces the death of Dr. McDowall, who only recently returned to the Colony from England. The death is also recorded of Mr. Joseph Bonadie, Editor of *The Times* and Secretary of the St. Vincent Agricultural Credit and Loan Bank. The Hon. J. E. Spratt has been elected Chairman of the Kingstown Board.

Tobago Cacao Crop Prospects.

Mr. Robert S. Reid, writing on 24th January, states that the Planters Association of Tobago sent a deputation, comprising Messrs. Orde and Elton Miller, and Captain Short to represent the needs of Tobago to Mr. Wood in Trinidad. Mr. Reid reports unsettled weather with strong winds and occasional showers. The cacao trees have straggling pods of all sizes. Planters are hopeful of a good crop later on. Coconuts did not suffer to the same extent during the storms last autumn.—An early visit from the new Governor is looked forward to.

The Under-Secretary in Trinidad.

Mr. Alick G. Hamlyn wrote on 31st January: "The delegates to the meeting of the Associated West Indian Chambers of Commerce arrived in the Colony by the R.M.S. *Chaleur*, on Saturday, the 21st January. They were welcomed by the Governor at the inaugural meeting, held in the Legislative Council Chamber on Monday, the 23rd January, and the conference promptly got to work on a very full programme. The last business meeting was held on Thursday, and, in the evening, the delegates were entertained at dinner by the Trinidad Chamber of Commerce. On the morning of Friday, the 27th January, the delegates were received by Mr. Wood, the Under Secretary of State for the Colonies, who discussed with them the various questions which had been engaging their attention. The Hon. E. F. L. Wood, M.P., the Under Secretary of State for the Colonies, with Major Ormsby-Gore and Mr. Wiseman of the Colonial Office, arrived here by H.M.S. *Valerian* from Grenada on Monday, the 23rd January, and was welcomed upon landing by the Colonial Secretary and other leading officials, and by the Mayor of Port of Spain and the City Council. An address of welcome was presented to him by a delegation of the Trinidad Working Men's Association. The party, which also included Lady Dorothy Wood, Lady Beatrice Ormsby-Gore, and the Marquis of Salisbury,

drove to Government House, St. Ann's. Next day Mr. Wood was welcomed by the City Council at a special meeting, and received addresses from the Legislative Reform Committee and the Agricultural Society. On Wednesday, the 25th, Mr. Wood and party visited some of the oilfields, were welcomed by the Mayor and Borough Council of San Fernando, and entertained by the Mayor at a garden party. A slight indisposition prevented Mr. Wood fulfilling the engagements made for Thursday, which had to be put off until the following day. A visit to the Pitch Lake had been arranged for Friday, but that had to be postponed indefinitely, and the morning was devoted to meeting the delegates of the Associated Chambers of Commerce and receiving addresses from the East Indian National Association, the East Indian National Congress, the Teachers' Union and the Working Men's Association. In the afternoon Mr. Wood visited the Caroni Reclamation Works with a large party. On Saturday, the 28th January, Mr. Wood received a deputation of the Legislative Reform Committee which presented a memorandum of the arguments in favour of the proposed changes. A deputation of Tobago planters discussed with him questions relating to the welfare of that Island. Mr. Wood also received a deputation of East Indians which presented an address urging that the present form of Government was that best suited to the needs of the Colony. A largely attended garden party at Government House, on Saturday afternoon, brought to an end a very strenuous week's work. Mr. Wood, on Sunday, with some members of his party, motored to Balandra Bay. He and his party have arranged to leave for Demerara by the *Mayaro* on Tuesday, the 31st January.—The announcement, made public on the 24th January, of the appointment of a junior officer of the Nigerian Railway to be General Manager of the Trinidad Government Railway has caused considerable dismay. The Unofficial Members of the Legislative Council have united in a protest against the appointment, and the Governor has consented to forward it to the Secretary of State.—On Saturday, the 28th January, Mr. W. H. Kennedy, a merchant of Port of Spain, was married to Miss Noemi Marie Schult, elder daughter of Dr. Raoul and Mrs. Schult. There was a large and fashionable attendance."

The Consular Body, in accordance with custom, waited on the Acting Governor on New Year's Day. Mr. Henry D. Baker, who succeeded the late Mr. Edgar Tripp as Dean of the Body, in the course of addressing His Excellency, pointed out that if Trinidad had been called upon to provide two Dreadnoughts for Imperial Defence, their cost would be equal to the entire trade of the Colony, both imports and exports, for 1920. They were, however, indirectly contributing to the cost of naval armaments through the lessened ability of overseas markets to purchase the commodities produced there.—Ordinance No. 1 of 1922 (repealing No. 65 of 1921), which received the Governor's assent on January 18th, gives in effect a moratorium to mortgagors as regards the principal sum secured on their estates. The Ordinance expires on 30th June, 1923. Various changes are announced in the Department of Education, Mr. Sydney Smith and Mr. J. E. Clarke having been appointed Assistant Inspectors of Schools, and Mr. J. E. Stoer, Junior Inspector and acting Senior Inspector of Schools.—The Carnival for 1922 has been restricted by proclamation to February 27th and 28th, and the *Cannes-Brides* or *Canboulay* procession prohibited.—The Governor has appointed Mr. G. D. Owen his Private Secretary, Captain Hugh Baker, M.C., his Aide-de-

Camp, and Lieut.-Colonel A. S. Bowen, Honorary Aide-de-Camp.

Mr. Edward Wood in Dominica.

The CIRCULAR is indebted to the Hon. H. A. Alford Nicholls, C.M.G., M.D., for the following account of Mr. Edward Wood's visit to Dominica:—

"At 7 a.m. on Thursday, January 5th, H.M.S. *Valerian* steamed into the port of Roseau, and on board was the Colonial Office Mission of Inquiry into the serious problems that had come to a head in the West Indies since the War. The Chief of the Mission was the Hon. E. F. L. Wood, M.P., the Parliamentary Under-Secretary of State for the Colonies, and with him were the Hon. W. G. A. Ormsby-Gore, M.P., and Mr. R. A. Wiseman, one of the Principals of the Colonial Office. The Administrator, His Honour Robert Walter, C.M.G., went on board the *Valerian* at 9 a.m. and landed with the members of the Mission an hour afterwards at the Bell jetty, which—in anticipation of the visit—had been decorated with flags and palms and flowers by the Roseau Town Board. On leaving the ship the Administrator was given the customary salute of fifteen guns. The visitors were received at the head of the jetty by the members of the Executive and Legislative Councils, heads of departments and a number of the leading residents, who were individually introduced to Mr. Wood and his colleagues by the Administrator.

At the approach to the jetty—where over a thousand enthusiastic people had collected—Mr. Wood was met by the Roseau Town Board, and an address of welcome to him was read by Mr. Welby Solomon, the Chairman. Mr. Wood made a felicitous and sympathetic reply, in the course of which he said that since he began to learn geography in his school days a great longing had come to him to visit Dominica, which was acknowledged to be one of the most beautiful places in the world. Mr. Wood then inspected the guard of honour of the local forces, and afterwards he and Mr. Wiseman drove with the Administrator to Government House, where they stayed during their visit of three days. Mr. Ormsby-Gore went to the Homestead with Mr. Edwyn Henderson, whose guest he became during his stay in Dominica. In the afternoon all the visitors motored with the Colonial Engineer to the Rest House at Highbury, and had an opportunity of enjoying the magnificent mountain scenery and of inspecting the Imperial road, concerning which much has been said and written in recent years. Mr. Wood expressed the opinion that the road was a feat of engineering skill.

"On Wednesday, January 4th, the Canadian Squadron arrived at the island. The ships were the *Aurora*, the *Patrol* and the *Patrickian*. Some of the ladies of Roseau opened a Naval Canteen Club, so that the entertainment of the Colonial Office Mission and the officers and men of the warships gave rise to unwonted excitement in the island. On Thursday, at 9 p.m., there was a dance at Government House. About 120 guests were present, and the band of H.M.S. *Aurora*, by its excellent music, increased the enjoyment of one of the most successful entertainments held in Dominica in recent years. On Friday morning Mr. Wood and his colleagues received a deputation from the Representative Government Association, and the members urged the gradual with-



The Hon. Edward Wood in Dominica.

The photograph from which this illustration is reproduced was specially taken in the grounds of Government House, Roseau, by Mr. Edward Hatchell, M.R.C.S., I.R.C.P., for The West India Committee. The names from left to right are, standing: The Hon. H. A. Alford Nicholls, C.M.G.; Mr. R. A. Wiseman, The Hon. J. Colin Macintyre, M.B.E. Seated: The Hon. W. G. A. Ormsby-Gore, M.P.; Mrs. Walter; His Honour Robert Walter, C.M.G., the Administrator; The Hon. Edward Wood, M.P.

drawal of Dominica from the Leeward Island Federation and the granting of a measure of direct representation by the people in the Legislative Council. Afterwards, a deputation was received from the Dominica Agricultural Society, and the speakers supported the proposals of the Representative Government Association and also discussed the question of the needed development of Dominica. Both deputations received sympathetic replies; but, naturally, no promise was made concerning any decision in regard to the questions raised.

"In the afternoon the visitors were taken a motor drive to Bellevue on the Alford Estate, and afterwards to the Soufrière at Wootton Waven—Major Hughes Chamberlain, the proprietor of the estate, entertaining them to tea.

"On Saturday morning the members of the Mission were photographed in the grounds of Government House with His Honour the Administrator, Mrs. Walter, and their young son Tom, and the Hon. Dr. Nicholls, C.M.G., and the Hon. J. Colin Macin-

tyre, M.B.E.—the senior official and non-official members of the Executive and Legislative Councils. Afterwards a deputation from the Chamber of Commerce was received, and the members, amongst other things, supported the request of the Representative Government Association and the Agricultural Society for defederation and a measure of representation in the Legislature.

"Later on the Administrator, Mr. Wood and his colleagues, with several of the residents, left Roseau on a motor expedition along the leeward coast and up



Mr. Wood lands at Roseau.

the Layou Valley. Colonel Woolmer, D.S.O., M.C., who was on a business visit to the island accompanied the party. Lunch was taken at "Coffee," the residence on the Clark Hall estate. The wide Layou river was crossed by a swing bridge and a long walk up the hill brought the travellers to the house, placed in the midst of beautiful surroundings. On returning to town, a stay was made for tea with Mr. Andrew Green, at Canfield estate, and the expedition was brought to an end by a visit to Kingsland House, where the members of the party were welcomed by Dr. Nicholls and his family.

"A final pleasant dinner party at Government House concluded the functions in which the members of the Mission participated, and they left at 11 p.m. to go on board H.M.S. *Valerian*, which steamed away early the next morning for St. Lucia. In the following extract from *The Dominica Chronicle* the general opinion held by the people of the island regarding the visit and doings of Mr. Wood and his colleagues are very fairly set forth:—

"Our distinguished visitors from the Colonial Office created an excellent impression. Their accessibility, their interest and their sympathy were all that could be desired. Added to which they had a charm of manner that made one feel they were not strangers amongst us from the time they landed. We should be foolish to expect the millennium to arrive as a direct consequence of their visit, but we may be certain that good will come of it. Let us hope that the Colonial Office will again come in person to the Colonies when occasion arises. It is difficult to convey the true atmosphere of a place in mailbags."

SUBSCRIPTIONS to The West India Committee fell due on January 1st.

COST OF LIVING IN JAMAICA.

Mr. A. Innes Pocock, Secretary of The Jamaica Tourist Association, has kindly furnished The West India Committee with the following information regarding the charges made by the hotels in Jamaica and the cost of living in that island generally, which is now published for general information. A detailed schedule of Jamaica hotel charges can be seen at The West India Committee Rooms on application. Prices, he writes, have been very considerably reduced since 1920. Certain country hotels charge from 15s. per day, upwards, and accommodation at 18s. per day is quite easily obtainable in the hotels outside of Kingston. In Kingston the larger hotels charge from 20s. per day upwards, and boarding-house accommodation is to be had at from 3 guineas a week up. "In regard to the cost of living, I regret to say that we are still very much above pre-war. The chief difficulty in this respect being house rent. Houses are almost unobtainable, and an unfurnished bungalow with two or three bedrooms and two reception rooms fetches a rental of from £12 per month upwards, without difficulty, and small furnished houses fetch anything from £18 to £30 per month. Imported food is cheaper than it was, and the price of clothes, etc., has dropped, but locally grown foods are still absurdly high, and, until house rents and local products drop, I am afraid we cannot conscientiously say that living in Jamaica is by any means cheap. Travelling expenses are still as high as ever, unless one owns



Inspecting the Guard of Honour.

one's own conveyance. Petrol, tires and motor-car accessories, as well as the price of cars, have fallen, but car hire has not."

MR. T. WALROND INNES, who first went out to British Guiana in the 'seventies, as Overseer on The Reliance in Essequibo, and was afterwards on Anna Regina with Mr. Russell Gilzean, has just retired from Mauritius, where he was for thirty years associated with the properties of the Anglo-Ceylon Estates Co.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

Mistah Crosby and Brummel.

SIR,—In the "Note of Interest" respecting the "Crosby" doggerel in your last issue, the scene has been misstated. Beckwith's Hotel (afterwards the Caledonian Hotel) was in Georgetown, Demerara and not Barbados. "Mistah Brummel" was the City Magistrate.

I am, etc.,
"MUDHEAD."

Mr. Scott Herriot, writing from Glasgow, also identifies "Brummel" in the doggerel published in last CIRCULAR as the well-known magistrate who was a contemporary of Crosby in British Guiana.

[Mr. James Crosby, barrister-at-law, was Immigration Agent-General from the sixties until his death in 1880, when he was succeeded by J. G. Daly, and Mr. John Brummel was stipendiary magistrate for Demerara, the Sheriff of Georgetown, and a contemporary of Crosby. In his "Twenty-five Years in British Guiana," Mr. Henry Kirke tells a good story of the first "Burra Crosby Sahib," when he was practising at the Bar in St. Vincent. Crosby "had defended a murderer before the Supreme Court, but the man was convicted, as Crosby thought, on insufficient evidence; so he appealed to the Governor, who, however, refused to interfere with the finding of the Court. So when Crosby went to inform the prisoner, he was highly indignant, and told the doomed man, 'Never mind, never mind; let them hang you, and then they shall see what the consequences will be to them'; but the poor man did not see it in the same light!"—Ed.]

Trinidad Mortgage Ordinance.

DEAR SIR,—I have received from Trinidad this mail an extract from a local newspaper showing the terms under which the Government are prepared to make advances to owners of plantations. One of the clauses reads that "these advances will be a first charge on the estate and the produce thereof, and will be subject to interest at a rate not less than that ruling for such advances elsewhere, nor less than a rate which will reimburse the Government for all expenses in connection therewith.

The above—the italics are mine—would appear to make the planters who borrow money from the Government responsible for any expenses which the Government may choose to charge.

So far as I can see from the Ordinance, under Section 11 the Receiver General shall, as and when the Government direct, make up an account . . . and shall charge interest on the amounts advanced at such rate as the Government may direct—which does not seem to me to be quite the same thing as now demanded.

I would also point out the unfortunate position of a mortgagee who has advanced money to an estate. Under the Ordinance, to postpone the payment of the principal sum secured by mortgages and other encumbrances on plantations, he is debarred from taking any action to protect his own interests, but must consent to his mortgagor borrowing money from the Government at an undefined rate of interest to save the estate from going to rack and ruin. Surely the Government should be asked to give some limit to the rate of interest they will charge.

Yours faithfully,
HAROLD J. J. FREEMAN.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes Ltd.

Home arrivals from Jamaica, in R.M.S. Comito, Avonmouth, February 10th:—

Mr. L. Cameron	Mr. W. Lachour	Mr. H. Riley
Mrs. M. Campbell	Mr. M. Malton	Mr. N. A. Sinclair
Mr. N. Cockland	The Misses McIntyre (2)	Mr. & Mrs. W. M. Stevenson
Mr. J. Crichton	Miss H. M. McLeod	Miss R. A. Wright
Mr. J. H. Hoper	Miss R. A. Mitchell	Mr. & Mrs. C. E. White
Commander & Mrs. F. Hare	Mr. & Mrs. T. M. Nesbitt	Mr. C. F. White
Mr. & Mrs. R. Luck	Mr. H. Ricardo	Mr. E. A. White
	Miss E. M. E. Russell	Mr. M. Velasquez

Sailings to Jamaica, from Avonmouth, in s.s. Patuca, February 21st:—

Mr. F. J. Constable	Mrs. J. A. Hartigan	Mrs. H. Mason
La-Col. J. A. Hartigan, C.M.G., D.S.O.	Miss W. R. Hodges	The Misses Mason (2)
	Miss V. M. Jones	Mr. W. Serruys

Sailings to Jamaica, from Avonmouth, in s.s. Comito, February 27th:—

Mr. & Mrs. F. Barkshires	Mrs. & Miss K. Isaacs	Miss C. Peralta
Mr. W. E. H. Dickin	Mr. & Mrs. A. Laurie & son	Sir George Sautmanish
Mr. R. M. Ernest	Mr. L. Mackinnon	Mr. & Mrs. P. Tarbutt
Miss A. Fernandez	Mr. J. May	Miss W. Tarbutt
Mr. G. A. Finch	Miss C. May	Mr. C. Taylor
Major Gibson	Mr. H. B. McGill	Mr. & Mrs. J. E. Ward
Mr. F. Goltsoschen	Miss L. E. McKeehaile	Mr. & Mrs. J. E. Ward
Mr. E. Gomez	Miss M. E. Nixon	Mr. C. H. Wieden
Sir H. M. W. Gray	Sir Michael & Lady Oppenheimer	

Royal Netherlands West Indian Mail.

Home Arrivals from West Indies, in s.s. Orpneson, Plymouth, February 15th:—

Mr. C. D. Blades	Mr. & Mrs. F. Jenkins	Miss M. A. Reed
Mr. & Mrs. W. R. Brown	Mr. A. P. Murray	Mr. W. C. Thorp
Mr. H. H. Goodall	Mr. J. P. Murray	Mr. F. W. Walcott
Sir John & Lady Harrison	Mr. & Mrs. J. M. Peacock	Miss R. Ward
Mr. & Mrs. A. Jeffreys & fam.	Mr. L. Povert	Mr. & Mrs. G. A. Yearwood

Sailings to West Indies, from Dover, in s.s. Van Rensselaer, February 25th:—

Mr. Charleston	Mr. A. Dorken	Mr. A. W. Ibbes
The Rev. and Mrs. A. Gird	Mr. A. Duckham	Mr. H. Legge
Mr. H. Davey	Mr. & Mrs. Edwards	Mr. D. Roberts
	Miss K. L. Edwards	

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. Intaba, February 24th:—

Mrs. Dredie	Mr. M. Hampton	Miss E. C. Pile
Mrs. J. A. Burgess	Mr. J. Henderson	Mrs. Richards & child
Miss Clerk	Mr. M. Herriot	Miss F. M. Ross
Miss P. G. Collins	Miss A. Hicks	Mr. R. W. Ridd
Miss M. Crowley	Mr. H. T. King	Miss Soreau
Mrs. Davis & child	Mr. & Mrs. Mansfield	Mr. S. H. Seymour
Mr. V. D'Oliveira & son	Mr. C. N. Marthey	Mr. R. C. Sharp
Mrs. Gale	Mr. F. Miller	Miss Smith
Mr. M. Glavin	Rev. & Mrs. Mortimer	Mr. J. W. Spiller
Mr. Hugh Godsal	Miss Mundy	Mrs. Spiller
Mr. W. A. E. Gordon	Mr. J. Peral	Mr. Temperton
	Mr. & Mrs. Phipps	Mr. J. C. Ward

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
Jaca & B'mas	... Liverpool	... Alexandrian	... Mar. 4
Jamaica	... Bristol	... Motagna	... " 7
West Indies	... London	... Commodore	... " 11
B'dos & T'dad	... Liverpool	... Nubian	... " 11
B'dos, T'dad & Dara	... Dover	... Crysses	... " 11
Jamaica	... Bristol	... Bayano	... " 13
Jamaica	... Birkenhead	... Miami	... " 14
Jaca & B'mas	... London	... Conway	... " 17

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6842.

Telegrams—
"Carib. London."



15, SEETHING LANE,
LONDON, E.C.3.

February 28th, 1922.

BANK RATE. Reduced to 4½ per cent. as from February 16th, after having remained at 5 per cent. from November 3rd, 1921.

EXCHANGE. Value of the £ Sterling.

	Feb. 14th	Feb. 28th		Feb. 14th	Feb. 28th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
to U.S.A. ...	27 10	18 2	to Spain ...	1 2 0	1 2 0
.. France ...	2 5 3	1 18 4	.. Germany ...	43 12 0	49 2 9
.. Belgium ...	2 2 2	2 0 4	.. Austria ...	203 0 0	205 0 0
.. Italy ...	3 12 6	3 6 7	.. Holland ...	19 3	19 0

The intrinsic value of the gold sovereign is £1 2s. 0d.

SUGAR. Shortly after the date of last Summary, the New York market strengthened, with buyers at 3.86 for duty-paid Cubans. The position, however, was not long maintained, values dropping on the 21st inst. to 3.78c., declining further on the 24th inst. to 3.70c. A firmer condition, however, set in on the following day, and the value of Cubans yesterday was 3.78c., equivalent to 2.12c. c.i.f.

Futures quotations yesterday were for landed in bond 96°:—May, 2.12c.; July, 2.61c.; September, 2.75c.

Demand in the home market has been good during the fortnight, and values are slightly higher. Home granulated was quoted yesterday at 46/9; American granulated, c.i.f. at 18/9; Canadian granulated, spot, 46/-; yellow crystals at 41/-, and white Mauritius, spot, 41/-. Cuban 96° were quoted at 11/10½ c.i.f.

The terminal market for raws has strengthened during the fortnight, values being for 96°, May and August 11/-. Values for white sugar are May 18/8½ and August 18/9½.

The exports of raw sugar from Czecho-Slovakia during last crop year expressed in metric tons were:

Destination.	1920/21.	1919/20.
France ...	95,328	150,102
Hamburg ...	84,188	—
Austria ...	63,273	76,704
Switzerland ...	48,429	352
England ...	31,080	9,211
Germany ...	23,505	39,755
Romania ...	21,207	3,197
Jugo-Slavia ...	17,028	10,080
Italy ...	12,188	11,516
Poland and Danzig ...	11,302	8,008
Other Countries ...	3,279	37,891
Total ...	414,376	340,516

The West Indian sugar statistics in London on February 18th were:—

	1922.	1921.	1920
Imports ...	739	3,449	6,241 Tons.
Deliveries ...	4,241	6,289	4,475 "
Stock ...	1,203	5,564	9,902 "

RUM. The spot market is as lifeless as ever, but some business has been done in Jamaica to arrive at lower rates. Other sorts are neglected.

The stocks in London on February 16th were:—

	1922	1921	1920
Jamaica ...	11,170	8,859	6,933 Puns.
Demerara ...	18,067	15,065	13,290 "
Total of all kinds	38,763	31,037	27,801 "

CACAO. The spot market for the very small quantity of West Indian on offer is firm, but for other sorts is flat. Since last auction, already reported, prices have advanced by several shillings, and some business has been done. Today's value of plantation Trinidad to arrive is 61/- c.f.f. The 1921 exports from Trinidad totalled 75,729,138 lbs., and established a record for the Colony.

The stocks in London on February 18th were:—

	1922.	1921.	1920
Trinidad ...	8,137	24,399	20,481 Bags.
Grenada ...	16,067	18,849	12,418 "
Total of all kinds	109,708	193,907	93,437 "

ARROWROOT. Moderate sales are passing at unchanged prices, which are firm. Last quotation, 3½d. to 6½d.

BALATA. West Indian sheet is slow of sale. Spot is quoted nominally at 3/5 to 3/5½; forward, 3/2 c.i.f.

BAY OIL. There is some enquiry at about 10/- per lb., but stocks are plentiful.

COFFEE. The market generally is steady, with the finer qualities dearer on the fortnight. No Jamaica has been offered since last Summary, and prices are nominally unchanged. Export business remains small, owing to prices being too high.

COPRA is steady with a fair enquiry. West Indian f.m.s. is quoted at £26 c.i.f. Holland-Hamburg, and £25 Nos. c.i.f. London.

GOTTON generally has been more active, and a good business has been done at higher prices. West Indian Sea Island is in limited request at unchanged prices: medium 23d., fine 31d., extra fine 40d.

HONEY. There has been very little demand since the auction reported in last CIRCULAR, and prices are rather easier. Dark liquid to polish is quoted at 30/- to 42/6.

LIME PRODUCTS. Lime Oil. Handpressed is quiet with value unchanged. Distilled is steady at 2/- to 2/3, with some business passing. Lime Juice. Only inferior grades of raw are available, and small supplies of really good quality would find buyers. Concentrated remains neglected.

LOGWOOD is quite neglected. Shippers were recently asking for offers at about £10 per ton, but there are no buyers.

ORANGE OIL. Small sales of Sweet have been made at 9/8 per lb. on the spot, but Bitter is unchanged.

RUBBER is dull. During the past week the price of crepe dropped to 7½d. per lb., the lowest price yet recorded for this quality. Spot sheet and crepe are to-day quoted at 8d.

SPICES. The market for Pimento is very quiet, with only a few transactions on the spot at 2½d. On c.i.f. terms 20/- is asked for March-April shipment, and 20/6 for April-May. Importers' stocks of Ginger are light, and for the present values remain firm. A parcel of fair small common Jamaica sold at 180/-.

WEST INDIAN SECURITIES.

Div.	Description	Latest price.
4 1/2 %	Antigua ...	...
4 1/2 %	Barbados ...	...
4 1/2 %	British Guiana ...	...
4 1/2 %	British Guiana ...	...
4 1/2 %	Grenada ...	...
4 1/2 %	Jamaica ...	...
4 1/2 %	Jamaica ...	...
4 1/2 %	Jamaica ...	...
4 1/2 %	St. Lucia ...	...
4 1/2 %	Trinidad ...	...
4 1/2 %	Trinidad ...	...
10 %	The Colonial Bank ...	8-8½
8 %	Royal Mail Steam Packet Co. Ordinary ...	86-91
6 1/2 %	Angostura Bitters Part. Preference ...	...
7 %	New Trinidad Lake Asphalt Co. 5% Debentures ...	103-108
—	Consolidated Rubber and Balata Estates Pref. ...	1/4
—	St. Madeleine Sugar ...	3/6
—	Apex (Trinidad) Oilfields, Ltd. ...	38/9
10 %	Petroleum Options, Ltd. 10% ...	71
—	Trinidad Central Oilfields ...	72 1/2
—	Trinidad Dominion Oil, Ltd. 10% ...	1 1/2
—	Trinidad Leaseholds, Ltd. (E) ...	28/10
—	United British Oilfields of Trinidad, Ltd. ...	18/6
—	General Petroleum of Trinidad ...	7 1/2
—	Direct West India Cable Co. ...	—
—	W. I. and Panama Tel. Co., Ltd. Ordinary ...	4 1/2
—	W. I. and Panama Tel. Co., Ltd. 6% Cum. Ist. Pref. ...	11-11 1/2
—	W. I. and Panama Tel. Co., Ltd. 2nd ...	11-11 1/2
—	W. I. and Panama Tel. Co., Ltd. 5% Debentures ...	69-74

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 6842.

Telegrams:
CARIB, LONDON.



15, BERTHING LANE,
LONDON, E.C. 3.
March 15th, 1922

THE AGRICULTURAL COLLEGE.

AS we were able to announce in last issue, the Imperial Government has now definitely agreed to contribute the sum of £15,000 towards the funds of the West Indian Agricultural College. This grant is to be spread over five years, and there are certain conditions attaching to it, the most important being that the Governing Body shall maintain the functions of the Imperial Department of Agriculture (which will now be merged in the College organisation), and that the Principal, who will discharge the duties of Commissioner of Agriculture, shall be provided with such assistance as may be necessary for the proper discharge of his duties. Any possible fear that the Geddesian Axe might fall on this £15,000 has, we are glad to learn, now been removed, and the offer of the Treasury has been definitely accepted by the Governing Body on the conditions laid down. This brings the cherished schemes of those who have so stoutly advocated the opening of a tropical Agricultural College in the British West Indies a distinct step nearer accomplishment, and our friends overseas will no doubt appreciate the significance and advantage of having the Mother Country as their partner in their new enterprise, the carrying out of which may properly be regarded as one of

the most important pieces of constructive work before the College buildings are erected on the St. Augustine pasture near St. Joseph, but the delay necessarily involved in the preparation of plans and estimates will not prevent the commencement of work, for, as we are pleased to hear, the College has acquired from the Trinidad Government on very favourable terms St. Augustine House and an old hospital, which is to be repaired and fitted up as temporary premises, with the necessary lecture-rooms and laboratories. This is all to the good, for we believe that when it can be demonstrated that practical work in the direction of agricultural education has been started in earnest, those colonies which have not yet intimated their intention of supporting this pioneer institution will give the matter their favourable consideration. Of hopeful augury in relation to this is the announcement made by the Jamaica Imperial Association in the memorandum which they recently presented to Mr. EDWARD WOOD. In this the confident belief was expressed that the Legislative Council would vote a contribution towards the College, and in this connection they warmly advocated the closer association of Jamaica with the Imperial Department of Agriculture. Now that the Department is to be merged into the West Indian Agricultural College, this closer association would presumably be a corollary to the Colony supporting the College, and there should, we imagine, be no difficulty in arranging for the Principal, in his capacity of Commissioner of Agriculture, to pay periodical visits to Jamaica, where his advice used to be so greatly appreciated. As already stated, the West Indian Agricultural College has been incorporated as a company, with the privilege of omitting the word "Limited" from its title; but this is, we hope, only a preliminary measure, and we look forward to the day when the College will be incorporated by Royal Charter. Meanwhile, it should be made clear that, though the College has been incorporated in the United Kingdom, it is the intention of the Governing Body to confer on the Executive Committee, which will sit in the West Indies, the fullest possible powers compatible with their maintaining the ultimate financial control, and consequently the College will, to all intents and purposes, be managed in the British West Indies—which is as it should be. The advantage, however, of having associated with it such distinguished scientists as SIR ARTHUR SHIPLEY, SIR DAVID PRIN, PROFESSOR J. B. FARMER, and PROFESSOR BOWER, besides business men willing to devote time to its affairs, will not be lost upon agriculturists in the British West Indies, who will also benefit substantially from the Imperial Government's grant of £15,000, which is now, as we have seen, assured.

THE AMERICAN SUGAR COMBINE.

UNDER an Act of Congress known as the Webb Act a company has been formed in New York called the Sugar Export Corporation to promote an export trade in refined sugar. According to a statement made by its Chairman, Mr. EARL D. BABST, the Export Company starts with a contract with leading Cuban producers on the same terms as those which were recently offered to all Cuban producers through the Sugar Finance Commission, the operations of which, it will be remembered, were brought to a close in December last. In a manifesto published in the American Sugar Bulletin of January 7th, Mr. BABST points out that the transaction is purely commercial, and is free from any artificial control. The United States and Cuba, he says, possess the finest sugar industry in the world. With the support of Washington, by giving permission, as proposed, to refine in bond, the industry, through the Export Corporation, will be in a position to compete successfully in the markets of the world. The United States and Cuban fields are, he says, sufficient to meet for some years all the needs of the United States and Europe, and he believes that if the industry of the United States and Cuba has the continued support of their respective Governments, there are many reasons to expect that it will be able to hold a large part of the business which came so unexpectedly to them during the war. He adds that the initiative of producers and refiners and the investment of hundreds of millions of American capital have made possible in Cuba and the United States a vast increase in the production of a food staple of pre-eminent world importance. "The world needs this sugar. The United States has the excess capacity to refine a million tons for export. Not another brick need be laid. There is bound to be a race for foreign markets. Will the ultimate prize go to Cuba and the United States, or will it go elsewhere?" MR. BABST concludes by stating that the industry had the pioneer courage to invest hundreds of millions in production, "without doubt it will have the courage and the vision to find and to hold foreign markets rather than cut production unnecessarily and so lead to a period of high prices." The extent to which MR. BABST's proposals are appealing to financiers and producers in the United States and Cuba is not yet very clear. American interests controlled 53.5 per cent. of the Cuban sugar in the 1920-21 campaign, but so large a percentage does not as yet, at any rate, come under the umbrella of the new combine. According to MR. HIMBLEY, the only refiners interested are the American Sugar Refining Company, of which MR. BABST is President, and MESSRS. B. H. HOWELL, SON & CO., while the total amount of sugar to be handled at present is given as 250,000 tons; but though the beginnings may be small, it is well that British sugar producers and refiners should be alive to the great stimulus which the successful operations of a combine on the scale envisaged by MR. BABST might have. There can be no doubt whatever that MR. BABST and his friends are looking to the English market as a suitable field for exploitation. Before the war, owing to the limited capacity of the

British refineries, nearly a million tons of refined sugar had to be imported every year from the Continent, and until the capacity of the British refineries can be increased, we must for a while look to America to make good our shortage of direct consumption sugar; but our friends across the Herring Pond must not look upon England as a permanent market for their surplus sugar, for we are glad to learn that, though the output of British refineries has never yet exceeded 885,000 tons, active measures are being taken to increase it very materially, and with the present margin between the cost of raw and refined sugar now over £10 per ton, there would certainly appear to be every inducement to British refiners to extend their operations.

MR. EDWARD WOOD'S MISSION.**An Official Report to be published.**

Mr. Edward Wood, M.P., Parliamentary Under-Secretary of State for the Colonies; Major W. G. A. Ormesby-Gore, M.P., and Mr. R. A. Wiseman, Principal of the Colonial Office, reached Plymouth in the s.s. *Oranje Nassau*, on their return from their West Indian tour, on February 28th. Looking bronzed and healthy, Mr. Wood and his colleagues are enthusiastic over their tour. Leaving Bristol on November 29th, they visited in succession Jamaica, St. Kitts, Antigua, Dominica, St. Lucia, St. Vincent, Barbados, Grenada, Trinidad, and British Guiana. On March 8th Mr. Wood had the honour of being received by the King at Buckingham Palace, a circumstance indicative of His Majesty's continued interest in the British West Indian Colonies.

In interviews with representatives of the Press immediately after his arrival, Mr. Wood stated that he had been in the West Indies at a time of great economic depression, but he was satisfied that the continuance of the existing preference for ten years would do a great deal to assist confidence, and with a general turn of trade the West Indies would win through. Regarding British Guiana, Mr. Wood was especially emphatic, saying that in that Colony there were great possibilities of development. British Guiana, indeed, was crying out for British capital. All through the West Indies he had found a growing political consciousness, and in many of the Colonies there was a desire for the introduction of the elective element into the legislatures. Everywhere there was the most striking spirit of personal loyalty to the King. The people had a great trust in the Secretary of State, but a great affection for the person of the King. Whatever we could do, by wireless, cables, and steamship, in the way of drawing the West Indies and the Motherland closer together would be of immense value to the Empire.

It is understood that a report of the Mission will be presented to Parliament, and it is expected that Mr. Wood will make an interesting speech about his tour when he dines with the West Indian Club, as he has promised to do, towards the end of the month.

NOTES OF INTEREST.

"When yaller snake dead, you can measure him."

BETWEEN fifty and sixty varieties of sugar-cane are now being cultivated in the Philippines.

MR. ALICK HAMLIN was, on February 16th, appointed an honorary correspondent of The West India Committee in Trinidad, in succession to the late Mr. Edgar Tripp, who held that position for over twenty years.

THE Philippine planters say that the maintenance of the present protection given them in the United States Customs tariff against Cuban sugar at at least its present figure is essential for the survival of the sugar industry there.

THE number of bunches of bananas imported into the United Kingdom in 1921 was 9,501,565, of the value of £6,713,016; and in 1920, 8,057,625, of the value of £6,468,719. This compares with 7,539,984 bunches in 1919, of the value of £2,172,688.

It seems a far cry from psychology to chocolate, but the two are united in Messrs. Rowntree's factory at York, where a Psychological Committee exists which has instituted a works' psychologist to study the character and tendency of the employees.

THE amount of duty paid on the following important articles consumed in the United Kingdom in 1921 was:—

Tobacco	£62,475,050	Rum	£7,510,567
Sugar	£33,068,759	Brandy	£3,333,882
Tea	£17,437,308	Cacao	£2,062,712

It is reported that the Russian Soviet Government is about to take in hand the organisation of the Russian sugar industry. The scheme provides for the formation of a trust, which will be operated by the Government through the Supreme Economic Council.

THE cacao exports of the British West Indies last year amounted to 95,808,189 lbs. During the year there were imported from the British West Indies into the United Kingdom 17,293,808 lbs.; into the United States 32,384,639 lbs., and into Canada 17,293,808 lbs.

THE working of the 60 ships composing the Canadian Government Merchant Marine in 1921 showed a loss of \$1,700,000, which is explained by the lack of cargoes and general trade depression. The total loss for the year, including fixed charges for depreciation, amounted to \$9,000,000.

THE consumption of saccharin in the United Kingdom in 1918 was 1,079,824 ozs. In 1920 it was 2,297,282 ozs., and in 1921, 1,255,073 ozs. There was no saccharin produced in the United Kingdom in 1918, 2,671,883 ozs. in 1920, and

1,338,670 ozs. in 1921. With cheaper sugar it is evident that the use of saccharin is diminishing.

H.M. Sloop *Wistaria* is making a five months' cruise in the Caribbean. Leaving St. Kitts on March 21st, her projected itinerary is: Montserrat, March 21-24; St. Lucia, March 25-April 5; Carriacou, April 5-8; Tobago, April 8-12; Trinidad, April 12-22; Paramaribo, April 24-28; Georgetown, Demerara, April 29-May 11; Barbados, May 14-28; Dominica, May 24-30; and Antigua, May 30-June 6.

Facts about Sugar states that, taking all visible factors in the situation into account, it appears certain that the world will have use during 1922 for all the sugar it is likely to produce and for the surplus sugar carried over from 1921 as well. Indeed, were prices to continue at their present low level, our contemporary considers that in all probability the supply would not be equal to the demand.

WE have received from the Fulton Ironworks a copy of their Bulletin No. 100, in Portuguese vernacular, describing their pre-crushers, double crushers, multiple crushers, and cane-milling accessories. We are not Portuguese scholars, but the illustrations, which are beautifully rendered, speak for themselves. Not only are they works of art, but show in a striking manner the development of modern mill work.

PALM oil has been used in a 10 (effective) horsepower internal combustion engine, constructed to work with gasoline. Water injection into the combustion chamber was provided for, and it was found that the motor worked as well on the palm oil as it did on the gasoline, but that the water injection did not decrease misfiring. The mechanical efficiency obtained with the palm oil was 80 per cent., and the thermal efficiency 20 per cent.

THE rapid development of Agricultural credit societies in Trinidad and Tobago is shown by an encouraging account of these useful institutions given by Mr. W. G. Freeman, as Registrar of Friendly Societies in that Colony. Beginning with only one in 1916, their number had risen two years later to six, of which five were in Tobago. Last year there were no fewer than 31, with a membership of 1,930, and a loan account of \$185,147. Of the 21 credit societies in the larger island, 20 are under the auspices of the Ste. Madeleine Sugar Company.

THE decline in the consumption of drinks in the United Kingdom is not confined to alcoholic beverages. The consumption of sweetened temperance drinks was only 44,293,019 gallons in 1921, as against 47,166,334 gallons in 1920, and 57,072,990 gallons in 1919. The *Mineral Water Trade Journal* attributes this to retail profiteering. "Unsweetened" mineral waters showed an increase of 1,050,000 gallons over the 1920, and of 2,050,000 gallons over that of 1919. The scarcity of ginger

is also troubling the trade, and our contemporary sees "No ray of hope in the ginger position."

* * *

By Proclamation, dated February 10th, the importation into Germany is permitted of "Sugar for colouring purposes free from dextrine for colouring rum." This, the result of the recent development in Germany of the manufacture of "rum" from beet molasses, an account of which was given in last issue of the CIRCULAR, is a striking proof of the justification of the definition of rum as being spirit prepared from sugar-cane products in the countries where the sugar-cane grows, and also of the superiority of cane-sugar over beet-sugar, colour prepared from the latter evidently not giving the flavour to the spirit that colour prepared from cane-sugar does.

* * *

The following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C.

"The Manufacture of Cane Sugar," by Jones and Scard; 26/-.

"The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/-.

"Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.

"The Cane Sugar Factory," by F. I. Scard; 3/-.

"The Pocket Guide to the West Indies"; 7/6.

"West Indian Tales of Old"; 8/-.

"The British West Indies"; 9/6.

"Historic Jamaica," by Frank C. Cundall; 8/-.

"A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6.

These prices include postage.

* * *

THE question arose recently as to whether, in the event of the wife of a resident in the West Indies coming over to England for a period exceeding six months, it would render the whole of her husband's income liable to United Kingdom Income Tax. It can be authoritatively stated that the reply to this question is in the negative. The wife of a resident in Jamaica, living in the United Kingdom, would be liable to Income Tax only on the amount of her own income, together with the amount of any sums received by her from her husband out of investments, or property out of the United Kingdom. There would be no additional liability to United Kingdom Income Tax in respect of the husband's foreign and Colonial income provided that he did not visit this country for a longer period than six months in the year.

* * *

A SECOND correspondent in Canada, writing on February 4th, takes exception to the suggestion made by his namesake in a letter published in the CIRCULAR on January 19th last, that one of the Canadian refineries should be closed. He writes:

"I think it well to let you know that the refiners resent such an article being published in the CIRCULAR, and it was one of them who first called my attention to it. Conditions in the sugar business in Canada, as you are well aware, have been extremely critical, and there can be no comparison between the cost of refining in Canada and the United States in the existing state of affairs. The suggestion that one of the re-

fineries should be closed is a very absurd statement to make or put into print, particularly for circulation in the West Indies."

* * *

It is unnecessary to say that the CIRCULAR had no intention of giving offence to the Canadian refiners, and it is obvious that the closing of one of the refineries would not be welcomed in the West Indies; but it is always interesting to have diverse views on these questions.

* * *

THE cultivation of sugar cane in Paraguay received some impetus during the recent high price period owing to the obvious advantage of supplying the country with home-made sugar, states H.M. Consul at Asuncion in his Report on the Economic and Financial Conditions in Paraguay. The area at present under cane is estimated at 11,000 acres, and the production of sugar in 1920 is given as 3,800 tons, as compared with 2,505 tons in 1919, and 362 tons in 1918. The average consumption of sugar is stated to be about 3,000 tons a year. In 1920 Paraguay appeared for the first time as an exporter of this product, with a shipment of 1,411 tons. Seven factories are at present in operation, the largest of which, with a production of 2,000 tons in 1920, has eight or ten miles of metre-gauge railway running through its estates. Only the ordinary unrefined sugar is produced by these factories, and there appears to be room for enterprise in the establishment of a refinery. The production in 1920 of industrial and rectified spirit from sugar cane was 419,000 litres and of cana (rum) 641,600 litres.

* * *

In a lecture given at the Royal Society of Arts on December 14th last, by Sir Walter Beaupré Townley, K.C.M.G., late Minister to the Netherlands, the lecturer said that the cultivation of the sugar cane in Java has greatly developed during the last twenty-five years; and it is claimed that it is now, thanks to untiring systematic scientific research and instruction, the most up-to-date in the world. The area under cultivation has increased 117 per cent. in the last 25 years, and the total production of sugar has increased 235 per cent. since 1894. It is interesting to note the different directions Java sugar has taken during the last years. In 1874 about 37 per cent. went to Holland, the inferior qualities going to England and Asia. From 1895 to 1902 the greater part of the production went to the United States, and from the latter date up to 1914 to East Asia and Australia. During the war years, 1915 up to and including 1917, Europe (chiefly England) and British India bought the biggest part of the first runnings, but in 1918 China and Japan again became the chief buyers.

ESSENCE OF GINGER.—Pound $\frac{1}{4}$ lb. of best ginger and put it into a wide-mouthed bottle, adding a pint of spirits of wine, 3 teaspoonfuls of white sugar, and 3 tablespoonfuls of brandy or rum. Cork it tightly and let it remain for 2 weeks, shaking the bottle every day. Then strain and use.

COST OF SUGAR PRODUCTION.

Figures Rarely Comparable.

One of the most difficult tasks of the cane sugar statistician is the procuring for the purpose of reliable comparison the working costs of production in various countries. The difficulty arises from the different methods employed in their calculation, arising in many instances from the various circumstances in which production is carried on, but also from the different views held on the subject by the proprietors.

Strictly speaking, the cost of production of the sugar should be the sum resulting from the division of the total expenditure, after deducting revenue derived from every item of production other than sugar, no matter of what nature, by the tonnage of sugar made. This practice is by no means universally followed, and the stated cost of production may include that for rum, cattle food, yams, potatoes, plantains, coconuts, or other agricultural products, without any credit being given for revenue derived from them. This omission may make a big difference in the cost of production figure. The revenue from rum, for instance, or from a marketable crop arising from rotation, may be considerable. The cost of producing these by-products cannot be accurately differentiated in the accounts, and is consequently charged to the sugar, and unless the sugar account is credited with the proceeds of their sale, a misleading expression is arrived at as to the cost of its production.

A problem in connection with the subject which affords real difficulties in solution is that of "improvements." A factory, for instance, may put down a new milling plant. What position should the expenditure for this occupy in the factory accounts? The writer's view of the matter is that if there is in the new installation an increase of power as regards either the quantity of cane ground, or in the extraction of the sugar, or both, the proportion of the cost equivalent to the increase should be charged to capital account, and the balance to current account. Thus, if the old plant dealt with 100 tons of canes in a given time, yielding 75 tons of normal juice, and the new plant dealt with 120 tons in the same time, giving 96 tons of juice (80 per cent.), 21-96ths of the cost of installation should be regarded as capital expenditure, and 75-96ths as ordinary expenditure. Strictly speaking, also, some adjustment should be made for saving in horse-power, if any, but for practical purposes the above method is sufficient. In the case of a single mill unit being added to an existing mill plant, the whole cost should be charged to capital.

At present there are several ways of dealing with the subject. The cost of a new machinery installation may be charged entirely to capital account; or it may be spread over a number of years in connection with the ordinary expenditure, or it may be charged at once to the latter.

In connection with improvements, there are also several points on the agricultural side of production which are variously dealt with. One of these is the taking in and planting of new land. It is a common practice to charge the cost of this either to capital or to spread it over a term of years. If it is for the purpose of increasing the acreage of the estate, the former action is manifestly the correct one; but if it is merely as compensation for acreage to be, or being, thrown out of cultivation, the charge should certainly be to the existing crop. In the case of the substitution of mechanical for hand tillage, the same holds good.

Railway extension is also dealt with in different ways, but the same principle as applied to the above improvements holds good in this respect. If the expenditure is merely for the sake of cheapening or facilitating the taking of the crop, it should be charged to the crop, and if made with the view of increasing the crop, to capital account.

There is, however, no uniformity of practice in dealing with improvements in relation to costs of production, and this in itself tends to discount further the value of comparative figures in this connection.

A condition which is unavoidable, but which also renders cost of production comparisons misleading, is where the factory is supplied wholly or in part with farmers' canes. The factory account is charged with the cost of these, which represents not only the cost of growing the canes, but also the farmer's profit thereon. It is manifest that the cost of production in this case cannot be accurately compared with that of a factory growing its own canes. As in Cuba the bulk of the canes is grown by "colonos," the cost of Cuban production, as given by the f.o.b. cost, is really higher than the true cost of production in Cuba by the extent of the farmer's profits on the canes yielding the ton of sugar.

The several tons used as the unit of weight also are calculated to lead to misapprehension. There are three of these in existence—the metric ton of 2,205 lbs., the British, or long, ton of 2,240 lbs., and the American, or short, ton of 2,000. The first two approximate so closely as to render error from comparison negligible. The use of the third, however, which pertains practically entirely to United States practice, is irritating, and likely to lead to error. In the case of sugar literature emanating from the United States, in some instances the long ton is used, in others the short ton. The result is that where the nature of the ton is not specified, the reader is in a state of perplexity as to which the statements are recorded in.

It would be Utopian to expect to obtain a uniform practice throughout cane sugar producing countries as to methods adopted in arriving at the cost of production of the sugar. But it would be extremely useful if some statistical centre were in existence which would compile an account of the various methods, with the view of supplying the necessary information to enquirers, so that a proper comparison might be made between the various costs of production, and a considerable amount of misapprehension avoided.

THE GOOD OLD SUGAR CANE.

Mr. Deerr's Historical Conspectus.

One of the most interesting features of the second edition of Deerr's uniquely excellent work on Cane Sugar is the historical "conspectus" appended to it.

As mention of the sugar cane occurs in Hindu mythology, Vishna Mitra being credited with its creation, the history of sugar and of the sugar cane goes back in the East to time immemorial.

In the Atharva Veda, one of the Sacred Books of India, is a prayer of a Hindu lover to his beloved one: "I have surrounded thee with the clinging sugar cane to remove aversion." This was written three thousand years ago.

The first contact, however, of Europeans with it was in 327 B.C., when soldiers of Alexander the Great saw the sugar cane in cultivation there. About 600 A.D. it is recorded that the Chinese Emperor, Tsai Hing, sent agents to Behar, in India, to study the art of sugar-making. Only what is now called *gur* was up to that time made, but a little later it is recorded that Nestorian monks, at the Guishapur, at the mouth of the Euphrates, produced a white sugar, and Deerr thinks that probably the invention of the sugar-loaf may be attributed to them. At any rate, sugar was evidently a prominent commercial proposition in those days, as it is mentioned as being among the spoils captured at the taking of Dastagerd, in Persia, by the Byzantines in 627 A.D.

In 641 A.D. Egypt was conquered by the Saracens, who introduced the sugar cane cultivation into that country. This led to the establishment of a sugar industry on the coast and in the islands of the Mediterranean, and about 735 A.D. Abdurrahman I. introduced the cane into Spain. Deerr states that so much progress was made in Egypt with the industry in the following years that a large crystal sugar made there was marketed as far east as India, that type of sugar being still known there as Egyptian.

In 1150 A.D. no less than 75,000 acres were in cane cultivation in Spain, but the industry languished after the taking over of that country from the Moslems by the Christians, who evidently did not appreciate the virtues of sugar.

Sugar, probably of Egyptian origin, was used in the English King's household in 1264, and in 1319 a cargo of sugar was sent to England to be exchanged for wool. The prominence of the cane sugar industry in the 14th and 15th centuries in the Mediterranean may be judged by the fact that in 1419 A.D. the University of Palermo, which apparently included an agricultural college, gave instruction in the cultivation and irrigation of the cane. In the following year the King of Portugal sent the sugar cane to Madeira, whence it reached the Azores, the Canaries, the Cape de Verde Islands, and West Africa. The decline of the Mediterranean industry then commenced.

An individual to whom the whole cane sugar producing world should erect a monument was Pietro Speciale, who constructed the first three-roller mill, with rollers either vertical or horizontal, in 1449. In 1463 the Turks conquered Con-

stantinople, subsequently extending their Empire to Egypt, Rhodes and Cyprus. The result was the extinction of the sugar industry in the Levant; but the same epoch saw the introduction of the sugar into the western world, Columbus in his second voyage taking it to Hispaniola, together with experts from the Canary Islands. Deerr quaintly remarks: "They died, but the cane flourished." These experts went with the view of establishing a sugar industry on the central factory system. The 16th century marked the extension of the sugar industry in the New World under Spanish and Portuguese influence, Hispaniola and Brazil being the chief centres, the Western European refining trade starting at the same time, notably at Lisbon and Antwerp. The first horse-driven mill was established in Hispaniola in 1515. The sugar cane reached Mexico in 1520, Brazil in 1592, Peru in 1585, Cuba in 1547, and Porto Rico in 1548, but its introduction into the Lesser Antilles was made much later. In 1624 the Dutch had taken possession of Brazil. They were driven out by the Portuguese in 1654, but in the meantime they were instrumental in establishing the sugar industry in St. Kitts, Barbados, Guadeloupe, and Martinique about 1640. The founder of the Jamaica sugar industry was Sir Thomas Modyford, who planted the first sugar cane there in 1660. The British Guiana industry commenced a few years later, a Dutchman, Jan Doensen, erecting a horse-driven mill in Essequibo in 1664. The Jesuits carried the sugar cane to the Argentine in 1670.

Deerr mentions the Otaheite and Java canes as being brought by the French to the West Indies in 1789, but as he looks upon the former of these as being identical with the Bourbon, it is probably this cane to which he refers, as Bligh brought the Otaheite cane to Jamaica in 1793. The Java cane referred to was no doubt the White Transparent.

The first vacuum pan used in connection with the raw cane sugar industry was erected at Pln. Vreed-en-Hoop, in Demerara, in 1837. It may be remarked that this proved a failure, owing to the difficulty of curing the sugar, the centrifugal not being invented until 1837 by Penzoldt, very probably as the result of the introduction of the vacuum pans into Java in 1836.

It may be added that Vreed-en-Hoop, which belonged to the late W. E. Gladstone, who received £87,000 as compensation for the slaves on it at the time of the abolition of slavery, resumed the muscovado manufacture and continued it until it ceased to grind its own canes about 1884.

The above are a few of the extremely interesting items of sugar history which Deerr gives in his excellent work.

THE Hon. Treasurers of The West India Committee have to acknowledge with thanks contributions to the Wedding Gift to Princess Mary from the under-mentioned members:—Mr. E. Radcliffe Clarke, Mr. Paul Dumoret, Mr. F. J. Larrout, Mr. E. A. Lister, Mr. H. W. Lofty, Mr. F. Carter Rey, and Mr. Thomas Wildman. Lists of subscribers to the Wedding Gift were published in the issues of the CIRCULAR of February 16th and March 2nd, 1922.

THE GOLDEN BEAN IN BRAZIL.

The following report on cacao in Brazil has been supplied to the American Chamber of Commerce for Brazil by Dr. Hannibal Porto, vice-president of the National Society of Agriculture and deputy to the Junta Commercial of Rio de Janeiro, and is reproduced from the *Tea and Coffee Trade Journal* of February, 1922.

Brazil occupies third place in the world production of cacao. It occupies one of the first places in the matter of price quotations on this product in consuming markets, and could easily occupy first place as producer if in the valley of the Amazon the work of restoring the old cacao plantations was carried forward and new plantations were started.

In the last few years the exportation of Brazilian cacao has been as follows:—

Tons		Tons	
1913	29,750	1917	55,622
1914	40,769	1918	41,865
1915	44,980	1919	62,584
1916	43,720	1920	54,419

As the world consumption is 300,000 tons, Brazil's quota is about one-sixth. The consumption is constantly increasing.

The state of Bahia alone contributed the following toward the total Brazil production:—

Tons		Tons	
1913	25,140	1916	42,940
1914	40,525	1917	52,230
1915	32,095	1918	33,000

In the last two years, although statistics are incomplete, the exportation went above these last figures without counting part of the exports made directly from Ilheos to domestic markets.

The cacao of Bahia was transplanted from Para, where, in the beginning, it was harvested in the jungle from wild plants with the name of *cacau bravo*. The culture of cacao, undertaken on order of the Federal Government, began in 1678. There were in Para, according to the historian Manoel Barata, 1,500,000 stands of cacao in 1780. The exportation in 1750 was 64,427 arrobas (1 arroba equals 25.4 lbs.). In 1850 this exportation exceeded 200,000 arrobas. It remained at approximately this same level in 1916, which is explained by the fact that the cultivation of cacao was overshadowed by the rubber extraction industry.

There exist even to-day in Para great cacao plantations more than a century old, remains of Brazil's colonial days, planted by the ancient religious missions. A few years ago, in the vicinity of Obidos, in the lower Amazon region, the Federal Government sold at auction an immense cacao plantation, more than 100 years old, the property of the nation, which had been completely abandoned. The new proprietors restored it entirely, and its production to-day is larger and better than any other in that zone.

This fact demonstrates the extraordinary vitality of the cacao tree in Amazonia, where, according to the renowned specialist, the engineer Paul Le Coite, all the lands generally are admirably adapted to its cultivation.

The Amazon cacao is one of the varieties most appreciated, as much for its aroma as for its rich-

ness as alealoide (theobromina), and in oily material (cocoa butter), also because of the small quantity of loss (hulls and chaff) which results from roasting, says the French economist Paul Le Coite, who resided for several years in Northern Brazil.

Para cacao is always quoted higher than that of Bahia, which owes its important position in the world's markets not to its quality nor to the manner in which it is prepared (which leaves much to desire), but solely to the quantity produced, already great and increasing steadily.

"It is certain," says Henri Jumelle, "that the state of Bahia is very near to the extreme vegetation limit of the cacao tree, and it is much less favourable to its cultivation than the State of Para, where not only the theobroma cacao, but many other species of theobroma are indigenous."

Exports of cacao from Para and Amazonas have been as follows during recent years:—

Tons		Tons	
1914	3,373	1917	4,592
1915	4,225	1918	2,479
1916	3,341	1919	6,479

Bahia is the greatest producer of cacao in Brazil. The south of this State, like all of the Amazon Valley, possesses lands admirably adapted to its culture. The now important port of Ilheos, through which the entire production of the State passes on its way to the capital and domestic markets, is entirely the result of the prosperity that came from the traffic in Bahia cacao.

The Federal Government is installing in this city a modern experimental station and refining works for the cultivation and preparation of the product by modern methods.

AN ANALYSIS OF CACAO.

According to the analyses of Tulpen and Fleisch, says the *Tea and Coffee Trade Journal*, the elements to be found in the leading varieties of cacao (seeds fermented, dried, and roasted) are as follows:—

Variety	Hulls	Cocoa Butter	Albami-woods	Theo-bromina	Chaff, Gums, Cellulose	Ash	Nitro-gen
Caracas	13.8	48.4	11.14	0.55	32.19	3.95	1.78
Trinidad	15.5	49.4	1.11	0.48	32.82	2.80	1.76
Su inau	15.5	64.4	11.14	0.56	38.35	2.35	1.76
Guayaquil	11.5	49.8	17.03	0.63	30.47	2.50	2.08
Grenada	14.8	45.6	12.40	...	35.70	3.40	1.86
Bahia	9.6	50.3	7.40	...	35.20	2.60	1.17
Cuba	12	45.3	8.67	...	39.11	2.90	1.37
Pará	8.5	54	12.65	0.67	26.33	3.05	2.06

TRINIDAD CACAO PRICES.

The Cacao Planters' Association at Trinidad gives the following as the prices that have been received by cacao growers during recent years:—

Per 110 Lbs.		Per 110 Lbs.	
1910-11	11.47	1918-17	13.40
1911-12	12.65	1917-18	13.20
1912-13	14.45	1918-19	20.30
1913-14	12.76	1919-20	23.90
1914-15	15.06	1920-21	10.00
1915-16	16.20		

MR. ARTHUR W. FARQUHARSON.

Mr. Arthur W. Farquharson, Chairman of the Jamaica Imperial Association, reached England in the *s.s. Bayano* on March 6th to discuss with The West India Committee, the British Empire Producers' Organisation, and the Trade and Industry Committee of the Royal Colonial Institute matters affecting the industries of Jamaica, and to make representations on the subject to the Government. Mr. Farquharson, who was Crown Solicitor of Jamaica from 1894 to 1911, resigned in the latter year in order to take up a business appointment, and in 1917 he founded the association which has done, and is doing, so much for Jamaica. In 1907, after the Jamaica earthquake, he came over to England with the late Archbishop of the West Indies, Dr. Nuttall, to discuss relief measures, with very satisfactory results, and he now hopes that his present mission will be equally successful.

In an interview with a representative of THE WEST INDIA COMMITTEE CIRCULAR shortly after his arrival, he made it very evident that all is not well just now with Jamaica, for though the banana industry is at present flourishing, thanks to the competition of the several companies which are now purchasing fruit for export, sugar is passing through a serious crisis. But even the banana industry is menaced by the Panama disease, which, unfortunately, has found its way into the island, and appears at present to be incurable. This led Mr. Farquharson to reiterate the hope already expressed in the memorandum which he submitted recently on behalf of his association to Mr. Edward Wood, that arrangements might be made for the periodical visits of the Imperial Commissioner of Agriculture to Jamaica to be resumed. He expressed pleasure at learning that the Imperial Department of Agriculture was to be merged into the West Indian Agricultural College, and believed that it would be in the interests of Jamaica to support the College financially.

With regard to sugar, Mr. Farquharson is greatly concerned by the attitude of the American financiers and refiners, who, he believes, are out to crush the British industry, just as Germany endeavoured to do before the abolition of bounties in 1902. "Already," said Mr. Farquharson, "a combine has been set up in New York, and under an Act of Congress, known as the Webb Act, aims at refining surplus Cuban sugar in bond for the purpose of export to European markets."

Mr. Farquharson said that he had heard with satisfaction Mr. Edward Wood's announcement that the British Government would undertake to maintain the preference on sugar for ten years, but this by itself would be insufficient to meet the present situation. He was, therefore, strongly of the opinion that the rate of preference should be increased, with provision that the substantive value of the preference should be maintained at a reasonable figure. To legislation in Jamaica, which penalises the holding of property beyond the value of £15,000 by any one company or individual, Mr. Farquharson referred as handicapping bulk production, by which alone efficiency and economy can be

secured, and he asked what possible inducement there would be for capitalists to embark on enterprise in Jamaica under such conditions.

Mr. Farquharson, who, it is satisfactory to be able to state, has lost none of his vigour and enthusiasm through his illness last year, will remain in England for the next few weeks.

ARTIFICIAL FARMYARD MANURE.

As a result of investigations carried out at the Rothamsted Experiment Station, it has been found that straw can be converted into an excellent imitation of farmyard manure with the help of nothing more elaborate than water and some soluble nitrogen compound, of which sulphate of ammonia is at present most easily obtainable. Repeated experiments have shown that the most rapid breakdown of straw occurs when some source of nitrogen is supplied, and then only in those cases where the reaction of the solution is neutral or slightly alkaline. As sulphate of ammonia tends to be acid, finely-ground chalk or limestone must be used with it to neutralise the solution. For general purposes three-quarters of a hundredweight of sulphate of ammonia and one hundredweight of finely-ground chalk per ton of straw are sufficient to induce fermentation.

The process of making the manure is quite simple. The only trouble arises from the tardiness with which the straw takes up the moisture necessary for fermentation. It is suggested that the most effective method is to water the straw lightly at first, and leave it for a couple of days. During this time a slight fermentation with increase in temperature sets in, rendering the straw more capable of absorbing a second slight application of water. When examination shows that the interior of the heap has become uniformly moist, the sulphate of ammonia and chalk can be broadcasted over the surface and watered in. After this fermentation soon becomes more rapid, and may be assisted by turning the heap to admit air, just as is done with ordinary farmyard manure when the desire is to make it heat and rot down quickly. Nitrolim may be used in place of sulphate of ammonia, in which case no ground chalk is required. Manure made as described must be inferior to real farmyard manure in that it is not a complete fertiliser. It must be considered as supplying only nitrogen and humus. But it is an easy matter to provide the necessary phosphates and potash in the form of mineral fertilisers.

No class of soil cultivators, says the *Gardeners' Chronicle* (Vol. lxx., No. 1820), will be more interested than fruit-growers in the Rothamsted discovery of the simple method of converting straw into manure without the help of livestock. Fruit-growers, as a rule, do not keep much stock, if any, and they are finding it increasingly difficult to obtain sufficient supplies of town stable manure. Yet they cannot grow their crops for long without some form of organic nitrogenous manure, of which farmyard or stable manure is the best.

RUM BONDING CHARGES.

Port Authority Promises Relief.

The following correspondence has passed between The West India Committee and the Port of London Authority on the subject of the charges for warehousing rum at the London Docks:—

17th February, 1922.

Sir,—We wrote to the Port of London Authority under date 7th February,* urging that a further reduction of at least 50 per cent. might be made in its rates on West Indian produce in view of the fact that the market values of the principal West Indian staples had fallen to unremunerative figures. In that letter we instanced the case of sugar and cocoa to show that the reduction in Port Rates had not fallen commensurately with the decline in market values.

We have since received a letter from The Jamaica Imperial Association in which they lay stress on the heavy warehouse charges to which rum is now subject. As you are no doubt aware, Jamaica rum is at present almost unsaleable and proprietors have, consequently, sustained very heavy losses which are aggravated by the heavy bonding charges now prevailing. They inform us that they believe that these charges are based upon the capital cost of constructing new Bonding Warehouses at a high cost during the war, and if this is the case, and if it should prove that the cost of erection of these warehouses is being borne by the produce stored in them, we venture to suggest that it would be more equitable if the cost were to be spread over the goods and produce handled at the docks as a whole, instead of charged against one commodity, but we shall be glad to know whether the assumption of The Jamaica Imperial Association is correct.

In any case, we would strongly urge that the question of Dock Charges may be reconsidered and that reductions may be made at an early date with a view not only to affording relief to the much harassed staple industries of the West Indies, but also in developing the trade of the Port of London.

I am, Yours obediently,
(Signed) ALGERNON ASPINALL,
Secretary.

Leadenhall Street,
24th February, 1922.

DEAR SIR,—Referring to your letter of the 17th instant, 7.431, I am desired to inform you that the Authority are now engaged upon a thorough investigation of dock and warehouse charges generally and also are negotiating with labour for decreased payment.

It is the Authority's anxious desire to afford some relief and it is hoped that this will be done in the near future.

The Jamaica Imperial Association are not right in their belief that the present charges on rum are based on the capital cost of constructing new bonded warehouses at high cost during the war. In fact no alteration has been made in the basic rates on rum since pre-war, except to absorb the strike increase of 1912. They have of course in common with other rates had the war increase added.

Yours faithfully,
(Signed) J. H. ESTILL,
Commercial Manager.

* Not reprinted here.

THE WORLD'S SUGAR CROPS.

At the request of a correspondent the following totals of the world's cane and beet sugar crops for the twenty-one years 1900-01 to 1920-21, with Messrs. Willett & Gray's estimates for 1921-22, are published below.

YEAR.	CANE.	BEET.	TOTAL.
1900-01 ...	5,157,416	6,123,377	11,780,793
1901-02 ...	6,070,282	6,983,859	13,054,141
1902-03 ...	6,118,059	5,761,809	11,879,868
1903-04 ...	6,296,429	6,060,178	12,356,607
1904-05 ...	6,597,690	4,916,622	11,514,312
1905-06 ...	6,733,626	7,217,366	13,950,992
1906-07 ...	7,369,341	7,150,010	14,519,351
1907-08 ...	6,894,481	6,972,200	13,866,681
1908-09 ...	7,645,746	6,901,010	14,546,756
1909-10 ...	8,291,587	6,588,595	14,880,182
1910-11 ...	8,412,908	8,550,220	16,963,128
1911-12 ...	9,175,130	6,889,261	16,064,391
1912-13 ...	9,289,583	8,918,638	18,208,221
1913-14 ...	9,801,536	8,634,942	18,436,478
1914-15 ...	10,176,649	8,306,577	18,483,226
1915-16 ...	10,627,248	6,254,698	16,881,946
1916-17 ...	11,331,871	5,773,218	17,105,089
1917-18 ...	12,408,166	5,006,685	17,414,851
1918-19 ...	11,959,349	3,881,331	15,840,680
1919-20 ...	11,917,111	3,263,623	15,180,734
1920-21 ...	11,843,868	4,723,344	16,567,212
1921-22 ...	11,513,060	4,975,500	16,488,560

UNITED STATES SUGAR EXPORTS.

The following table gives the amount of the exports of refined sugar from the United States in the years 1919, 1920, 1921 to the various countries:

Destination	1921.	1920.	1919.
	Tons.	Tons.	Tons.
United Kingdom ...	162,524	117,978	189,808
France ...	53,891	155,230	280,213
Italy ...	22,501	867	26,309
Gibraltar ...	6,661	4,668	34,032
Belgium ...	493	4,758	7,327
Denmark ...	2,400	2	4,503
Finland ...	1,203	101	5,203
Germany ...	2,232	955	328
Greece ...	43,685	8,985	22,321
Netherlands ...	9,574	5,257	733
Norway ...	11,035	30,951	6,133
Russia ...	415	705	1,503
Servia and Roumania ...	958	1,578	654
Spain ...	15,452	21,303	25,031
Switzerland ...	—	32,459	1,000
Turkey ...	11,102	7,523	14,343
Iceland ...	732	—	1,213
Mexico ...	12,014	5,327	11,518
Panama ...	976	273	980
Argentina ...	14,868	4	244
West Indies... ..	7,648	2,231	1,168
Uruguay ...	11,943	181	14,140
Canada and Newfoundland	6,103	2,827	1,343
Philippine Islands ...	1,246	1,508	1,636
Asia ...	846	231	607
Africa ...	7,982	4,647	3,100
Other Countries ...	9,987	1,894	2,894
Total ...	416,881	412,494	*658,575

* Includes toll shipments to Royal Commission on the Sugar Supply.

JOTTINGS FROM MY NOTEBOOK.

BY "AGRONOMIST."

Bonazzi has recently been studying the question of whether *Azotobacter chroococcum* is a soil fixer of atmospheric nitrogen or not. He has come to the conclusion that this organism, instead of being an active gatherer of free nitrogen, may act by immobilising the nitrogen in the form of nitrate, taking the upper hand over the denitrifying bacteria, and, to a considerable extent, stopping leaching.

* * *

Recent researches show that sulphur has a distinct action on cultivated soil, shown by an increase in crops varying according to the amount of organic matter existing in the soil, the extent of the surface, and the length of the time of contact. The increases are proportionate to the quantity of sulphur used, and the best economic results are obtained by the application of between 850 and 550 lbs. per acre.

* * *

The experts of the Dairy Division of the United States Department of Agriculture have isolated a new propionic bacterium from American-made Swiss cheese, which they have called *Bacterium acidii propionici* (d), to distinguish it from the already known *Bacterium propionici* (a). This organism has been found to produce the characteristic holes and sweetish taste of cheese of the Emmental type.

* * *

The Iowa Station *Bulletin* (197, 1921) contains a report of an investigation conducted during 1917 in connection with the milk production of 58 farms. The average production per cow for the year was 4,565 lbs. Leaving out management charges, but including depreciation, interest and taxes on cows, and crediting the account with the value of calves and manure, the average net cost of producing 100 lbs. of milk was \$8.15.

* * *

The total amount of actual potash imported or produced in the United States in 1920 was 240,000 short tons, as against 287,487 tons in 1913. In 1920 there were imported 1,480,508 short tons of nitrate of soda, as compared with 659,600 short tons imported in 1913. There were 490,000 tons of ammonium sulphate produced in the United States in 1920, 70,000 tons of fish scrap, 2,288,000 tons of cottonseed meal, and 4,500,000 tons of acid phosphate.

* * *

Mr. R. Snell states in the *Queensland Agricultural Journal* (No. 16 of 1921) that the occurrence of odours in milk resembling those of ripe fruit is due in great part to contamination with *Bacillus coli communis*, and suggests cleaning the udder and rejecting the fore milk as preventive measures. In cheese-making, Mr. Snell says, the flavour can be counteracted by the use of a high acid lactic starter or by other methods whereby a relatively high acidity is developed before the whey is drawn.

The results of preliminary work on the properties of the anti-scorbutic vitamine are published in the *Journal of Biological Chemistry*, No. 46 of 1921. It was found that the desiccation of cabbage in an atmosphere of carbonic acid for 35 hours at 150° F. causes destruction, and that the same result occurred from the fermentative process taking place in the manufacture of sauerkraut from cabbage and silage from corn. The vitamine in orange juice is not destroyed by ether or by aeration, but is by oxidising agents, such as hydrogen peroxide and potassium permanganate.

* * *

The New South Wales Department of Agriculture's *Farmers' Bulletin* (186, 1921) contains the results of experiments in manufacturing cheese from neutralised sour milk. By neutralising highly acid milk with caustic soda, using lime water in the whey, it was found possible to produce a good marketable cheese in the winter-time, but in the summer-time neutralisation with soda, followed by pasteurisation and treatment with calcium chloride to restore the coagulatory properties lost by heating, did not in general produce a satisfactory cheese. When, however, the evening milk was thus treated and mixed with the raw morning milk, better results were secured.

* * *

A recent number of the *Journal of the Society of Chemical Industry* contains the results of the analysis of sixteen samples of Nauru and Ocean Island phosphate. Only traces of iron or alumina were present, but there were in several instances varying amounts of fluorides. The original source of the phosphoric acid was evidently accumulations of guano, and most of the phosphates gave evidence of having undergone considerable metamorphosis, and of having been deposited either from solution or as sediment. Only part of the phosphoric acid was present as tricalcium phosphate, the composition showing the presence of varying proportions of tetra-calcium phosphate.

* * *

The loss of flavour in citrus fruit juices resulting from over or uneven heating may be avoided by the use of a continuous pasteuriser. In the case of grapefruit the juice is first extracted by means of a fruit press from the fruit cut in halves or quarters, but not peeled or seeded. If much essential oil from the peel accompanies the juice, it should be removed by passing the juice through a centrifugal cream separator. The juice is then passed through the pasteuriser, which may be heated as high as 185° F. without harm if the time of heating is kept between five and ten seconds. From the steriliser the juice passes into sterilised five or ten-gallon bottles, which are corked and kept in cold storage until all the sediment has deposited in the bottom of the bottle. The clear juice is then decanted, mixed in the cold with about 2 lbs. of kieselguhr per 100 gallons, and filtered through an ordinary rack and plate press. The filtrates from the press can be re-sterilised directly or can first be mixed with the other fruit juices to improve the flavour. After the second sterilisation the juice is run into sterile bottles, capped, and stored.

SUGAR AND CACAO DUTIES.

The second annual meeting of the Manufacturing Confectioners' Alliance, for an account of which we are indebted to *The Confectionery Journal*, was held on February 15th, and in the course of the discussion on the annual report, the subject of the duties on sugar and cacao was dealt with.

In this connection Mr. Morrell said he saw no prospects of any reduction in the coming Budget. If the duty were reduced it would mean a reduction in the price, a reduction in the price would mean a larger demand, and a larger demand would mean more work.

Mr. Norton pointed out that the present high duties on cocoa and sugar affected our export trade on account of home consumption values. You all know, he said, the difficulties in regard to most of our Colonies. They charge their *ad valorem* duties on our home consumption values, which are automatically increased by our Customs Import Duties of 4¼d. per lb. on raw cocoa beans and 2¼d. per lb. on the sugar used in those articles. It has also to be remembered that in converting the raw cocoa beans to the manufactured article there is a loss in shell, evaporation, etc., which brings up the cost of duty on the manufactured article to 6d. per lb. when exported.

Our chief competitors—the United States of America and Holland—admit cocoa beans into their countries free of duty, and Switzerland has a very nominal import duty of ¼d. per lb. or 4s. 8d. per cwt. These three countries can buy their cocoa beans just as well as we can, and it is reasonable to suppose that their cost of manufacturing cocoa powder and chocolates is no greater than ours, consequently their home consumption values will be approximately less than ours by the amount of the above duties.

Take the case of Canada as an example; we get a preference of 12½ per cent. on our goods entering that Dominion, but owing to the home consumption prices of the manufacturers of the three countries above mentioned being less than ours, their goods on entering Canada will pay the *ad valorem* duty on a much lower value, which brings about the anomaly in many cases of the 12½ per cent. Preference Duty being not only completely wiped out, but our manufactures, such as cocoa powder, having to bear the additional handicap of ¼d. per lb. when compared with the prices of our three principal competitors.

Mr. Vernon Smith (associate member) referred to a meeting that was held at Liverpool in connection with the Liverpool Retailers Association, when a proposal was brought forward protesting against the heavy duty on sugar. It was, however, defeated on these grounds: That the retailers were out to maintain the high price now prevailing in the trade, because they worked on a percentage basis, and they argued that if the prices were reduced, they would not receive so much profit by way of percentage. Pointing out the danger of giving the public the idea that the trade was anxious to maintain high prices, he suggested that the Alliance should seek to counteract any impression there is in the minds of the retailers that the high price was going to be good for them or the trade in general.

A good example of what *Punch* calls "commercial candour" occurs in the following advertisement appearing in a West Indian newspaper:—"Value tells, and Value sells; and it's our wish to sell you."

CERTIFICATES FOR RUM.

Australia's Requirements.

The attention of Rum producers in the British West Indies is called to the fact that in addition to the distillation certificate required by His Majesty's Customs in the United Kingdom to establish the age of rum, they should provide a certificate in the form demanded by the Australian Commonwealth Customs to prove the origin of the rum and to prove also that it has been distilled "wholly from sugar, sugar syrup, molasses, or the refuse of sugarcane by a pot-still or similar process at a strength not exceeding 45 per cent. over proof."

The Commonwealth authorities have now approved the following certificate from British Guiana which can be used *mutatis mutandis* for rum shipped from Jamaica or any other British West Indian Colony:—

BRITISH GUIANA.

County of

AFFIDAVIT.

I, _____ of No. _____ being

duly sworn make oath and say as follows:—

1. That I am District Commissary of Taxation in charge of the Sugar Plantation _____ situate in the county of _____ and in the colony of British Guiana herein referred to on the attached Warehouse Certificates.

2. That the rum in puncheons marked _____ and numbered as follows:—
was manufactured on Plantation _____ aforesaid, and that the same is pure, distilled wholly from Molasses which is the refuse of sugar made from Sugar Cane, and is distilled by a Pot Still at a strength not exceeding 45 per cent. over proof.

And further I say not.

Sworn to at _____ British Guiana,
before me this _____ day

of February, 1921.

(Sgd.)

COMMISSIONER OF AFFIDAVITS.

British Guiana
stamp 24 cents.

(Sgd.)

Chief Commissary.

Impressed stamp of British
Guiana Government.

MINERAL WATER AS MEDICINE.

The Parliamentary Committee of the National Union of Mineral Water Manufacturers put the following questions in writing to candidates at Parliamentary bye-elections, with a request for a specific reply.

- 1.—Would you be prepared to vote for the abolition of the table water duties?
- 2.—Would you vote for a rebate of the sugar tax upon all sugars used for manufacturing purposes?
- 3.—Would you support a demand for a rebate of the spirit duty on spirit used for manufacturing purposes, thus in this respect bringing our beverages into line with medicines?

INSECTICIDES AND FUNGICIDES.

On account of the opposition of manufacturers, the Ministry of Agriculture and Fisheries has decided, says *The Fertiliser and Feeding-Staffs Journal*, to postpone the introduction into Parliament of the proposed Bill to regulate the trade in chemicals as insecticides and fungicides. Believing, however, that many manufacturers will be prepared to meet the terms of the Bill without previous legislation, certain of the more important provisions have been published (Leaflet No. 863). These conditions and the articles to which they apply are as follows :—

LEAD ARSENATE PASTE.

(a) The total amount of arsenic in lead arsenate paste as sold for agricultural and horticultural purposes shall not be less than 14 per cent. of the paste in the condition in which it is sold, nor less than 28 per cent. of the paste when dried at 100 deg. C., the arsenic being expressed in terms of arsenic oxide (As_2O_3).

(b) The amount of water-soluble arsenic in the paste as sold shall not exceed 0.5 per cent., expressed as arsenic oxide (As_2O_3).

(c) The actual percentage of arsenic in terms of arsenic oxide (As_2O_3) in the paste as sold shall be stated on the label, together with the dilution required to produce a standard spraying mixture containing 0.1 per cent. of arsenic oxide (As_2O_3).

(d) The amount of substance other than arsenate of lead and water in the paste as sold shall not exceed 8 per cent.

LIME-SULPHUR SOLUTIONS.

(a) Lime-sulphur solution, as sold for agricultural and horticultural purposes, shall be made from lime, sulphur, and water only.

(b) The specific gravity of the solution as sold shall not be less than 1.3 at 15 deg. C.

(c) The solution shall be free from suspended matter, and shall remain clear at all dilutions.

NICOTINE.

It is proposed to deal under the Bill with nicotine when sold as such, but the exact requirements are still under discussion. Purchasers of nicotine should, however, note that while the term "nicotine" is properly applied to the chemical in its free or uncombined state, it is sometimes used by sellers for combinations of nicotine with an acid—e.g., nicotine sulphate. Nicotine sulphate is an excellent insecticide, but it depends for its action on the nicotine it yields, and this nicotine must be released by mixing it with an alkali or spraying soap (which is sufficiently alkaline). Further, a nicotine-sulphate spraying solution can only be valued by the percentage of free nicotine it yields, and not by the percentage of nicotine sulphate.

COPPER SULPHATE.

Copper sulphate sold for use in a spraying mixture shall contain not less than 98 per cent. of crystallised sulphate of copper ($CuSO_4 \cdot 5H_2O$).

SOFT SOAPS.

(a) Not less than 95 per cent. of the total alkali present in soft—that is, potash—soap sold for spraying purposes shall consist of potash.

(b) Soft, or potash, soap sold for spraying purposes shall bear a label giving separate percentages of (1) the fatty acids, and (2) the resin acids, which the soap contains.

LIVER OF SULPHUR.

(a) An article sold as "liver of sulphur" shall consist of a mixture of salts of potassium, chiefly sulphides.

(b) It shall conform to the characters and tests given in the British Pharmacopœia, 1914, for sulphurated potash, and shall contain not less than 42 per cent. nor more than 45 per cent. of sulphur, as determined by the process prescribed in the British Pharmacopœia for the estimation of sulphur in sulphurated potash.

SODIUM AND POTASSIUM CYANIDES.

(a) An article sold as sodium cyanide for agricultural and horticultural purposes shall be capable of evolving (when treated with an acid) not less than 56 per cent. of its weight as hydrocyanic acid.

(b) An article sold as potassium cyanide for agricultural and horticultural purposes shall be capable of evolving (when treated with an acid) not less than 43.7 per cent. of its weight as hydrocyanic acid.

EXCESS PROFITS DUTY.

Double Payment Now Obviated.

An Order in Council, for issuance of which The West India Committee has been pressing for some time, was made on March 3rd, providing for the relief of those subject to payment of Excess Profits Duty in the United Kingdom and British Guiana from double payment of such tax. The preamble summarises the various enactments on the subject, and the Order in Council reads as follows :—

"Now, therefore, His Majesty, by virtue and in exercise of the powers in this behalf by the Finance Act, 1917, or otherwise in His Majesty vested, is pleased, by and with the advice of His Privy Council, to order, and it is hereby ordered and declared, that under the law in force in the Colony of British Guiana excess profits duty was chargeable for any accounting period which ended within the years 1917, 1918, 1919 and 1920, or which ended on the 31st day of December, 1917, 1918, 1919 and 1920, in respect of profits in respect of which excess profits duty was also payable in the United Kingdom, and that arrangements have been made with the Government of British Guiana whereby in respect of any such profits only the duty which is higher in amount is to be payable, and that the amount of such duty is to be apportioned between the respective Exchequers in proportion to the amount of duty which would otherwise have been payable in the United Kingdom and in the Colony of British Guiana respectively. And the Right Honourable Winston Spencer Churchill, His Majesty's Principal Secretary of State for the Colonies, is to give the necessary directions herein accordingly."

LIMESTONE IN AGRICULTURE.

In an article on "Pulverised Limestone for Agricultural Use," in *The Fertiliser and Feeding-Staffs Journal* of January 4th, Mr. A. Lancaster Smith, writing as to the British Isles, says that one of the most successful agriculturists has stated: "If £1,000,000 were spent on lime for treating the thousands of acres that are utterly deficient in lime, the whole nature of the heavy land soil would be changed." The farmer referred to has known what it is to take derelict land in Essex at a time of agricultural depression, and make the proposition

pay, and his dictum is certainly worth consideration. The farmer and manure trader are faced with some peculiarly difficult problems. The falling prices of agricultural produce mean that costs of production have to be lowered, or else the farmer must go out of business. The trader's and the agriculturist's prosperity are interdependent. If agriculture is prosperous, the trader is prosperous, and vice-versa. The question arises as to whether a comprehensive system of liming British soils will help in lowering the costs of production, and the answer is in the affirmative. Lime is an essential plant food, and without it soils cannot produce maximum crops. Very large areas of the land of these islands suffer from a deficiency of lime. A cursory glance at the map showing the geological formation of the country will show to the observer that these islands are richly endowed with a large variety of soils, varying in nature from the blown sand of some of the coastal districts to the heavy clays of Essex and Sussex, and in fertility from the fens of Lincolnshire to the thin soils of the Wiltshire Downs. In some districts there would be an obvious lack of lime, and in others the need would not be so apparent, but it must not be taken as a safe guide that the geological formation of the land is an absolutely infallible indication as to whether lime is or is not required.

What Mr. Smith says about the British Isles applies equally to tropical countries.

SUBSCRIPTIONS to The West India Committee became renewable on January 1st last.

A CUP FOR H.M.S. "CALCUTTA."

Indian City's Gift to its Name-Ship.

Tobagonians will learn with regret that their island's name-ship, H.M.S. *Tobago*, which was mined in the Black Sea some little time ago, is not to be replaced. The handsome rose-bowl which they presented to her, having been vested in the Admiralty on trust, will now presumably find its way to Chatham or some other naval base.

In this connection it is of interest to learn that the City of Calcutta has now followed the generous example of Trinidad and Tobago, and has presented a handsome piece of plate to H.M.S. *Calcutta*, a very popular ship in West Indian waters. This gift takes the form of a handsome silver-gilt loving cup with chased vine-leaf ornamentation, and a cover similarly decorated. It is 16½ inches in height, and is inscribed as follows:—"Presented to H.M.S. *Calcutta* by the Citizens of Calcutta, 1921." The cup, which is a copy of a George I. pattern, was made by Garrard & Co., Ltd., of Albemarle Street.

No doubt many readers of the CIRCULAR will have the opportunity of seeing it when the *Calcutta* returns from her cruise in the Pacific.



Calcutta's Gift to her Name-ship.

This handsome silver-gilt cup is 16½ inches high.

Some of his Parliamentary colleagues entertained Mr. Wood at an informal dinner of welcome at the House of Commons on March 8th. Major Ormsby-Gore was also a guest. Mr. Percy Hurd presided, and the company included Mr. Gideon Murray, Mr. Bigland, Lieutenant-Colonel Amery, Colonel Gibbs, Sir John Baird, Sir John Gilmour, Sir Owen Philipps, Sir Joseph Hood, Sir Newton Moore, Sir A. Shirley Benn, Sir Ion Hamilton Benn, Captain E. A. Fitzroy, Colonel G. Dalrymple-White, Colonel John Gretton, General Cockerill, Sir William Cowan, Admiral Sir R. Hall, Mr. Gershon Stewart, Colonel Burn, Colonel Wheeler, Sir Robert Newman, Sir A. W. Smithers, Commander Carlyon Bellairs, Mr. H. B. Betterton, Colonel E. Roys, Major R. Glyn, Colonel H. Spender Clay, Sir Frederick Young, Mr. Samuel Samuel, Captain W. E. Elliot, and Viscount Curzon.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 107.)

Capricious Cucaracha.

The Canal authorities had intended to pass the *Renown* and her escort through the Canal in record time, but their plans were frustrated by a fresh movement of the capricious Cucaracha slide, which still periodically closed the channel for traffic by precipitating into it masses of rock and débris from the scarred sides of Gold Hill. As we lay



H.M.S. "Renown" passing the Cucaracha Slide.

sweltering in Limon Bay, rumours already began to reach us that something was amiss, and we soon learnt that an immense boulder weighing over fifty tons had chosen this occasion to come hurtling down and obstruct the Culebra Cut. Nevertheless, soon after 9 a.m., still following closely on the heels of the *Renown*, we moved slowly off and entered the Canal.

For the first six or seven miles the banks on either side are uninteresting. The channel crosses diagonally the old French canal, now rapidly silting up, and in the bush and scrub one can still see the remains of some of the old machinery of de Lesseps's day.

At Gatun there was no waiting. The locks are all duplicated, one set being used for south- and

the other for north-bound traffic; but for this one day all the shipping in the Canal gave way to the *Renown* and *Calcutta*, which therefore were able to enter parallel locks.

On either side of us on the lock walls were two electric "mules"—locomotives with windowed "cabs" fore and after, and a turret amidships—from which steel cables were paid out and made fast to our bows and stern. The pilot on our upper bridge waved his arms, the cables were hauled taut to keep us in mid-stream, bells clanged, and off went the "mules," grunting and scrunching along and towing us into the lock with remarkable precision and a complete absence of fuss. Behind each locomotive two or three negroes ambled along hold-

ing a spare line, but no lock-keepers and no assistants were in evidence, the locks being operated by a hidden hand in a conning tower like a signal-box. No sooner were we inside than the gates closed behind us, handrails automatically rising into position on them in a mysterious manner as they did so, and from the depths of the lock a great fender chain rose to hold us back in case of emergency, and prevent our bumping into the lock gates.

At Gatun the Prince and his Staff landed, and were taken in a special train to inspect the Gatun Dam, accompanied by the President of the Panama Republic and other

local big-wigs, who had been invited to spend the day in the *Renown*—and it proved a longer day than they expected. This great barrier, fully a mile and a half in length, closes in the lower end of the Chagres Valley, forming thereby the Gatun Lake. The Prince was shown, too, the Spillway, a concrete-lined channel nearly 1,200 feet long and 285 feet wide, through which the surplus waters of the lake flow, and also the electric generating station that provides light and power for the entire Canal Zone.

Meanwhile, when the water in our locks had risen, the great gates before us opened, the pilot again waved his hand, the bells clanged, and the electric mules once more grunted forward, towing us into the next lock, and thence, in due course, into the

third of the flight, where the Prince and his party rejoined the *Renown*. The last gates then swinging open, we entered the Gatun Lake, whose surface is eighty-five feet above Limon Bay. This immense artificial sheet of water, now covering villages, forests, and part of the old railway track, over which one had walked ten years ago, is, approximately, the size of Geneva; but the only resemblance it bears to that exquisite Swiss lake is in its size. That is certainly impressive, but otherwise there is little to be said in favour of Gatun. From its shallow waters the barren stumps of silk-cotton and other forest trees still project, and will continue to project until they rot away in course of time, for no one will trouble to move them. A few hill-tops also rise above the surface of the lake, forming small islets, whose fauna, cut off entirely from the outside world, must present an interesting study to naturalists.

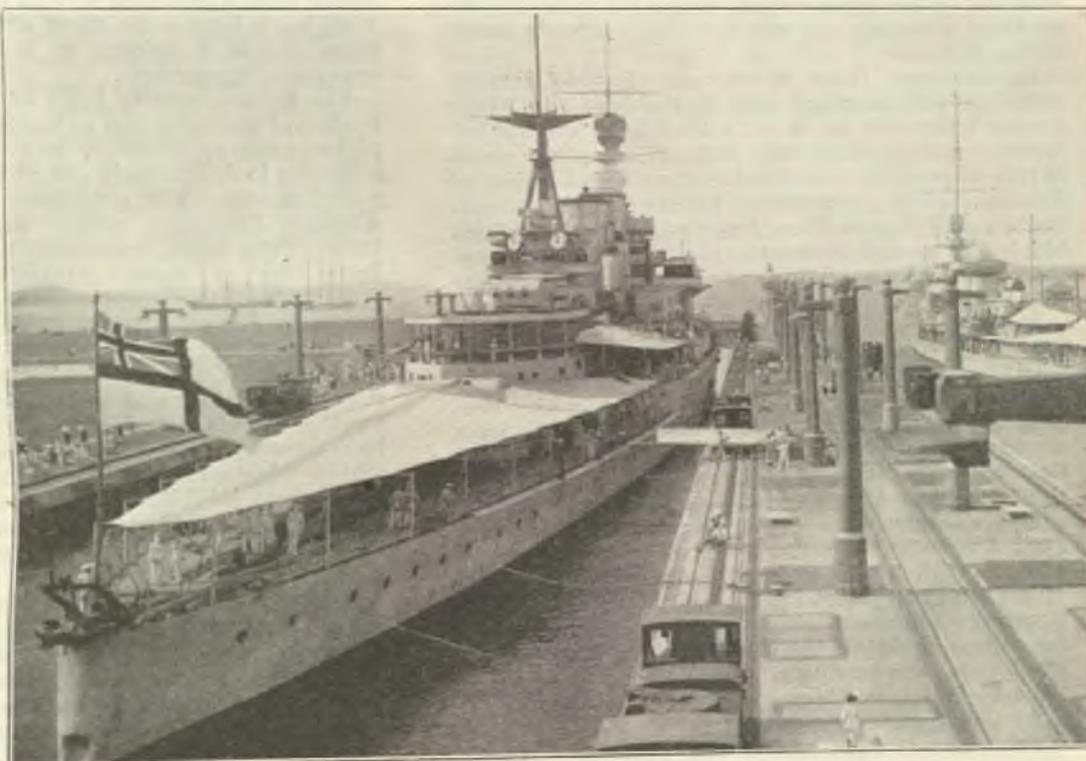
We steamed through the lake at a good speed, along the channel clearly defined by concrete lighthouses and other symbols, until we entered the mighty Culbra Cut. This vast cutting, now renamed the Gaillard Cut after the engineer who superintended the greater part of its construction, is by far the most striking feature of the Canal. It is no fewer than nine miles long, and its excavation involved the removal of over 230,000,000 cubic yards of "dirt," of which

the French were responsible for 20,419,720. All the same the cutting now looks small to what it did before the water was let into it. So immense is it that, looking down from above when it was being excavated, one had to gaze at it for quite a long time before recognising that some thousands of workers were busily employed in it. So far off were they that they looked like ants, while the "dirt trains" and gigantic steam shovels—which would lift several tons of rock with one scoop—resembled mere toys.

We now had ample time to inspect the Cut at our leisure, for though engineers had been feverishly attacking the latest obstruction with dynamite and dredgers, the fairway was not yet sufficiently clear to permit of the safe passage through it of

so large a ship as the *Renown*. Consequently, there was nothing to be done but to make fast alongside one of the tying-up stations, and to hope for the best while amusing ourselves by studying life—which included some fine specimens of alligator and iguanas—on the lower slopes of the precipitous cliffs that overhung us. Occasionally tugs towing barges full of rock dredged from the obstruction would pass us, and it must have been nearly five o'clock before we were under weigh again.

Cautiously we then picked our way along the narrow channel, turning one corner just as the *Renown* disappeared round the next, until we passed the beetling cliffs of Gold Hill, which looked



The "*Renown*" and "*Calcutta*" in the Gatun Locks.

as though they had been riven by an earthquake. At this point there was little room to spare, as one could see from the flags which marked out the fairway; but the *Renown* got safely past the obstruction, with no more damage than a chip out of her starboard propeller, and we followed. Thereafter all was plain sailing. The locks of Pedro Miguel, irreverently known to habitués of the Canal as "Peter McGill," were open ready to receive us, and we went through them in fine style. Here the Prince and his Staff went ashore and took to motor-cars, since they had an important engagement to keep at the Tivoli Hotel at Ancon, the American suburb of Panama, and it was now getting late. At Pedro Miguel we were beyond the reach of many spectators, and it was this, perhaps, that served to

bring into prominence an elated American whom the long arm of prohibition had evidently failed to touch. It was most entertaining to listen to the cross-talk between him and the sailors, and he elicited a roar of laughter when, pointing to our range dial, he called the attention of our Officer of the Watch to the fact that his "clock was wrong, anyway."

It was dark by the time we reached the Miraflores Lake and the three locks between us and the Pacific, brilliantly illuminated by electric lights on tall concrete columns, and a great arrow studded with incandescent lamps indicating which chamber we were to enter, were reminiscent of the White City or Coney Island on a beautiful summer's night. Thence we proceeded to Balboa, the commercial terminal of the great Canal, where we were accommodated alongside the wharf within a stone's throw of the *Renown*.

It was now Holy Week, and Latin-American cities are naturally not seen to the best advantage during Lent; but when we sailed forth on the following morning there was little to complain about in this respect, the sun-flooded streets and Plazas of Panama being gay with the bunting of all nations. Balboa and Ancon, the American suburbs, which bid fair to exceed in size the old Spanish City, were more conservative, flying only the Stars and Stripes in accordance with their patriotic custom.

Balboa, known in earlier days as La Boca, the Pacific mouth of the Canal, is a busy American port with docks, coaling stations (equipped with conveyors and transporters of the most ingenious description) and immense tanks of oil, which were already replenishing the bunkers of the *Renown* and *Calcutta* as we stepped ashore. Behind the docks rise the hills of Ancon and the minor elevations presumably thrown up in the distant past by that now extinct volcano. Round about it is the residential quarter, with many practical, but not pretty, square villas, reminding one of great meat-safes, each being rigorously screened with mosquito gauze, behind which one could see the shadowy forms of the gold employees' women-folk and children, who no longer have to fear insect-borne disease.

At Colon you enter a world of reinforced concrete which extends right across the Isthmus. Locks, bridges, culverts, lighthouses, lamp standards, telegraph posts, buildings—all are made of concrete, a noble example of what the architect can do with that material being afforded by the Canal Administration building. A long, white structure, three storeys high, the two lower recessed, the upper supported on tall columns and protected from the burning rays of the sun by a red tiled roof with overhanging eaves, it is admirably proportioned. Standing on a grassy hill, it is approached by three broad flights of steps, which add still further to its dignified and imposing appearance.

The Italians and French are reported to be the finest road-makers in the world; but they must surely be excelled by the Americans in the Canal Zone, who have provided Balboa, Ancon, and Panama with driveways as near perfection as can be. Paved with asphalt and oil, these arteries are as smooth as a billiard table, and, by constant care and sweeping, as glossy as black marble. A brief

experience of these wonderful roads made one positively blush to think of the shortcomings of most of the British West Indian islands in this respect, and, for example, of the dreadful dust in Barbados, which must be responsible for much sickness.

Close alongside Ancon—so close that it is only from the architecture and the habits of the people that you can tell where one place ends and the other begins—lies Panama, which was built in 1671 after the destruction of the older city of the same name eight or nine miles to windward by the pirate Morgan. The Americans made it part of their bargain with the newly-born Republic of Panama that they should enjoy the complete control of sanitation in its capital, for they realised the dangers they would have incurred through having on their flanks such a festering sore as the place would otherwise have been. So they drained and paved the city, and now enforce in it the most rigid anti-mosquito regulations.

The houses, mostly built of stone, with red tiled roofs and wrought iron balconies, have a squalid but picturesque appearance, and with many ancient churches look strangely out of keeping with the well-paved roads. The principal thoroughfare is the Avenida Centrale, which winds like a serpent through the town, traversing on its way to the harbour two of those attractive Plazas in which Spaniards all the world over rejoice, beautifully laid out with gigantic Royal palms, kiosks and seats. In this street are stores devoted to the sale of Panama hats, souvenirs, and Japanese and Chinese silks and curios, and in the principal Plaza is the weather-worn cathedral, with a florid facade and twin towers, the domes of which, encased with mother-of-pearl from the neighbouring Pearl Islands, glisten and scintillate in the sun. According to a tradition, this cathedral was erected at the expense of a negro, the son of a poor charcoal burner, who rose to be Bishop of Panama.

Lower down the Avenida is another venerable church dedicated to Santo Domingo—now, alas, in ruins, but still celebrated for its famous "flat arch." The church, of which only the walls and this arch now remain, was built by the Dominican monks, who experienced much difficulty in finding a suitable support for the organ loft. Arch after arch was built, only to collapse. Then one night a pious monk had a dream, in which a perfect arch was revealed to him. Next morning he at once made a plan of this arch, which was in due course constructed by his sceptical Brothers. When it was completed and the scaffolding was being removed, the inventive monk, to show his confidence in his arch, stood below it with folded arms, and from that day to this the arch, though only constructed of thin bricks without any key-stone, has remained in position, braving earthquakes, fires, and the scepticism of architects. This recalls the courage of Christopher Wren, who, yielding to the importunities of the Town Councillors of Windsor, reluctantly consented to add extra columns to their Town Hall, which he had designed, since they declared that otherwise their Council Chamber would collapse. He eventually erected the columns, but purposely made them too short, and to this day the floor stands as he made it, with a space between it and the columns.

(To be continued.)

THE NAME "GUIANA."

BY REV. JAMES WILLIAMS.

The Rev. James Williams went out to St. Patrick's, Barbice, in 1806, and after a year at St. Swithin's, on the West Bank, he went to Bartica as a missionary, remaining there until 1808, when he was transferred to the Rupununi, where he continued his work until he left the Colony in 1818. Mr. Williams made a close study of the language and dialects of the Indians of the interior, and has written a valuable work on the subject, which he hopes some day to publish.

This spelling, "Guiana," familiar to Englishmen as being the name of British Guiana, the only British Colony on the South American continent, first appeared in print in 1596, when there was published in London Sir Walter Raleigh's book, "The Discoverie of the Large, Rich, and Bewtiful Empire of Guiana . . ." The name has been variously pronounced and spelt. Probably the form "Guayana" best represents what we may suppose the original name to have been. The name has not always represented the same tract of country; it has denoted sometimes a geographical area, sometimes a political division. A modern writer tells us that the name of a country called "Guayana" is often met with in documents and maps from the 15th century, when the country was first discovered, down to the present day.

What authority exists for this statement of Father Strickland does not appear. It is, however, well-known that there was in use another name, "Caribana," for approximately the same country, both before and after the name "Guayana" came into general use. Thus we read in the first English translation of Peter Martyr: "They saye that the vnyuersal lande of the East region of the goulfe from the corner thereof reachynge into the sea, and from the extreme or vtter moste mouthes of the same receavyng the waters of the sea which faule into it, euen vnto 'Os Draconis' and 'Paria,' is by one generall name cauled 'Caribana,' of the 'Caribes' or Canibales whiche are founde in euery region in this tracte." The same name is mentioned by Oviedo in 1526, and J. C. da Silva states that after the Caribs had crossed over the Orinoco and invaded the country it became known as the country of the Caribs, or "Caribana," and was known by that name only to Gérard Mercator in 1569; to Ortelius in 1570-74, '79, '81, '84, '87, '92; to De Bry in 1592 and 1594; to Plancius in 1594; Michael Mercator in 1595; and to Van Langren in 1596, and that even after this date the name "Caribana" was still often used, sometimes for the whole of Guayana, sometimes for its northern, sometimes for its southern part, and sometimes for its coasts alone.

Sir Robert H. Schomburgk, mindful, doubtless, of De Laet's words, says: "The earliest Dutch settlers called it 'Guiana,' or the Wild Coast. It is said to have received its name from a small river, a tributary of the Orinoco." This careful language implies that the suggestion did not altogether satisfy Schomburgk, while at the same time he had no alternative one to offer. The tributary to which he refers is evidently that called the "Waini," or "Guainia," on the very excellent map of British Guiana compiled from Schomburgk's maps on a

scale of seven miles to an inch, and engraved in 1875. A larger river of the same name which flows into the Amazon is spelt and accentuated "Guainia" by the Venezuelan geographer Codazzi.

Mr. J. Rodway, discussing the name in a paper published in 1904, had before him the statement of an Arawak Indian, who said the name came from a tribe called "Akayuanas," who in a remote past dwelt between the Orinoco and the Amazon. Mr. Rodway identifies this name with the "Akaiwanna" Falls, on the Essequibo River, and thinks it is probably compounded of the Arawak words, "akuya," a fish, and "wina," water, but does not consider it as the source of the name "Guiana." There are, it is true, Arawak names on the Essequibo, as, for instance, "Cumuti," beyond the Akaiwanna Falls; at the same time we may remember that in the Macusi language, a Carib dialect, "kaiwanna" signifies "planet." Mr. Rodway, identifying the "uni" of river names like "Mazaruni" and "Cuyuni" with the Arawak word for water, "uniabo," readily adopts the suggestion mentioned by Schomburgk, and says: "In its simplest form, 'uni' is found in the River 'Wini,' or 'Wina,' spelt on Spanish charts Guayni, or Guiania. It is hardly necessary to go beyond this for the identification of the name Guiana, but it may be stated that a softening of the 'G' will assist; no doubt the original word was pronounced 'wiana.'" The spelling here, "Guiania," must be a misprint for "Guainia." In a discussion on the aboriginal words meaning "water," the Venezuelan scholar, Aristides Rojas, says:—"Unu, une, uma, ueni, ini, uni, weni, oni, wini, wane, ina," the forms used by various tribes, have all one origin. He instances the names of 86 rivers in the neighbourhood of the Orinoco having this termination, including three tributaries of the Guainia, but he does not include the last named river in his list. Rojas continues:—"As we have already said, the Quechuas have as a radical of water the word 'unu,' and the Aymaras, a nation of the Peruvian Andes, say 'uma,' while the Sarabecos, Poiconecas, and Moxos say 'une' or 'uni.'" This proves to us that the tribes who left the eastern slopes of the Peruvian Andes in their journey towards the north, and in their wanderings over the savannahs of the Amazon and Orinoco, imposed a terminology which, notwithstanding it has suffered some variations, has maintained itself in spite of the destructive action of the centuries."

Mr. Rodway, in the same paper, says of the River Essequibo that:—"In its upper reaches it is called 'Sipu,' which means rock or stone." The reference here is to the Arawak word "siba," a rock or stone. This word is found in print as long ago as 1511, when Peter Martyr refers to its use in the island of Hayti:—"ab eaqz marmoreos calculos & quos cibas vocant & tabellas quasda flauas ex aurichalco (quas guaninos appellat) habuisse dicit." It would not appear that the inhabitants of the banks of the Upper Essequibo were Arawaks. A MS. of 1624 says of the Essequibo:—"It is inhabited by Caribs and Aruakas. The Caribs inhabit the upper part of the river and the others the lower part."

(To be continued.)

THE COMMITTEE'S CALENDAR.

"Breadfruit" Bligh's Second Voyage.

Judging by the many favourable comments received, The West India Committee Calendar for 1922 has been much appreciated. In the description of it in the CIRCULAR of January 5th, a proof-reader made the Mutiny of the *Bounty* a "meeting," which was unfortunate, since it was really, as shown, a "parting." From the Natural History Museum a request for a copy of the Calendar was received, so that it might be included in a collection of botanical plates, the Bread Fruit Trees depicted being regarded as of botanical interest.

Another correspondent asked if the vessel shown was really the *Bounty*, or just a ship of the period. In the "King's Ships" (H. S. Lecky) the *Bounty* is included in the list of ancient war vessels, and it would appear that she was "hired and armed" for the purpose for which she was commissioned.

Mr. W. G. Ferrin, O.B.E., the Admiralty Librarian, and an authority on Naval records, who was consulted on this point, writes as follows:—"There seems no reason to doubt that the artist properly represented the *Bounty* in his picture. Whether he ever saw her, or what plans or information he had to work on I cannot say. But the picture seems to correspond with plans of the vessel and of the launch in which the party was set adrift, which are to be found in Lieut. Bligh's 'A Voyage to the South Sea, undertaken by command of His Majesty, for the purpose of conveying the breadfruit trees to the West Indies, in H.M.S. "Bounty" (London, 1792).'"

As a further result of the publication of the Calendar, THE WEST INDIA COMMITTEE CIRCULAR has received from the publishers a copy of "Captain Bligh's Second Voyage to the South Sea," by Ida Leigh (London: Longmans, Green and Co., 1920), which relates how, in 1792 and 1798, Bligh successfully carried out his mission of transporting the breadfruit plants to St. Vincent and Jamaica, in which he had been frustrated on the first occasion by the mutiny, and thus won the reward of one hundred pounds offered by The West India Committee. The *Providence* and the *Assistant*, after a stormy passage from St. Helena, anchored safely in Kingstown Bay, St. Vincent, on January 28rd, 1798. The arrival of the ships in the West Indies is thus described by the author, whose account is based on Bligh's log-books:—

"As twenty years have elapsed," writes Captain Bligh, "since I was at this island, and as I was not certain of knowing Kingstown Bay in the night, I was induced to bring to near a French sloop for a pilot. I got a negro who was perfectly acquainted with the harbour, and I anchored at half past ten, without accident: the winds were light, but fortunately the merchant ships knew who we were and sent assistance to tow us in.

"I sent Lieutenant Guthrie to inform the Governor of my arrival, and to request that everything should be forwarded to receive the plants I had been ordered

to leave on the island. In the morning Dr. Anderson, the superintendent, came on board and with him I waited on General Seton, and it was agreed to have the plants brought up to the Garden by negroes.

"On the morning of the 24th we began to land the plants. A number of negroes carried the pots on their heads to the Botanic Garden which is about 2 miles distant from the beach; and on returning they brought back in the same manner the plants that Dr. Anderson had got ready for His Majesty's Garden at Kew.

"A deputation from the Hon. Council and Assembly waited on me the day after my arrival, and presented me with a resolution and request to accept a piece of plate valued at 100 guineas as a mark of their approbation and esteem. They likewise did me the honour to give a public dinner to all my officers, and during our stay were unremitting in their kindness and attention. Two bullocks were given us on behalf of the ships' companies so that everyone benefited by their hospitality. I left in all 544 plants at this place, and I received, for His Majesty's Garden at Kew, 465 pots and 2 tubs containing botanic plants."

While the ships were in port at St. Vincent, Captain Bligh lost two men, Jno. Thompson (one of the *Maitiá's* men), who deserted, and Henry Smith who fell overboard and was drowned.

On January 30th the ships once again put to sea, and proceeded towards Jamaica. Three days later their courses were altered to make Altavella and Beata, islands off the southern shore of San Domingo, which were visible at noon. The *Providence* sighted Cape Tiburon, the most westerly point of Haiti, on February 4th, and at the same time Jamaica was visible but indistinctly. Next day both ships were brought to their moorings in Port Royal harbour, where Bligh's long voyage was safely accomplished, and at last the breadfruit tree was brought to Jamaica.

On the 6th Captain Bligh went on shore to call on Commodore Ford and to place himself under his command, while Lieutenant Guthrie waited on Governor-General Adam Williamson to whom a letter had been dispatched asking that the plants might be taken out of the ship as soon as possible. The commodore and many gentlemen from the shore came on the following day to see the breadfruit trees which we are told were then "in the highest perfection."

Captain Bligh also informs us that he attended a meeting of the Committee on the 9th to discuss the destination of the breadfruit. It was then determined to divide the plants among the different counties but to reserve two general houses or nurseries for them, one of which was to be at East Garden and the other at Bath. Mr. Wiles, one of the botanists, was engaged in the capacity of gardener to remain at Bath, and Bobbo or Pappo, the Otaheitan, was selected to remain with him.

"I was solicited to take the plants allotted to Bath round in the ship to Port Morant when I had delivered those intended for this place, and requested to order the *Assistant* to carry the Cornwall plants round to Savannah la Mar."

A pilot arrived on the 13th to take the *Providence* to Port Morant, where the remainder of the plants on board that ship, 268 in number, were landed; and on February 14th the *Assistant* sailed with her cargo of plants for Savannah. Those delivered to Jamaica were thus distributed: The county of Middlesex received 110; Greenwich (for the County of Surrey), 136; Port Morant (for the County of Surrey), 268; Savannah (for the county of Cornwall), 109.

In gratitude for his valuable services the Committee

ordered a letter to be sent to Captain Bligh, of which the following is an extract:—

KINGSTON,

March 20th, 1793.

"Sir,—I am authorised in the name of the Committee appointed to act in the reception of the Bread Fruit and other valuable plants lately received, to assure you in their name of the high sense they entertain of your exertions and great merit in bringing to so happy a conclusion the beneficent object of our most gracious Sovereign in this most arduous task committed to your charge.

"I am, etc., HENRY SHIRLEY."

The young trees were delivered at Port Morant in the usual way, being lauded from the ship and carried to their destination on the heads of the negroes. When they had all been put on shore, Bligh weighed anchor and made sail again for Port Royal, where he found the *Assistant* lying already. Important news was received shortly afterwards from Europe on the arrival of the *Duke of Cumberland* packet at Jamaica. She reported that the National Convention of France had declared war on England. This naturally caused great excitement, and it also delayed the departure of the *Providence* and *Assistant* as Commodore Ford detained them "until more force had arrived at Port Royal."

AGRICULTURE IN TRINIDAD.

The Department of Agriculture of Trinidad and Tobago has now issued its administrative report for the two years 1919-1920. During the latter year important changes were made in the functions of the department. From September 1st, 1920, it became a purely advisory body, the Government assuming all responsibility for providing in the Department officers to replace the mycologist, entomologist and agricultural advisers previously maintained by the Board from funds derived from a special tax, which has been now abolished, on agricultural produce. Another important change has been in connection with the St. Augustine and River Estates, which had been worked by the Department as independent concerns on their own basis, outside of the Colonial expenditure. The River Estate has become an integral part of the Department, while a part of the St. Augustine Estate has been reserved for an experimental station, the balance being transferred to the Crown Lands Department for pasture and other purposes.

The report gives an interesting account of the progress in agriculture of Tobago, as indicated by the value of the exports. In 1917 the value of the exports was £64,571, and the values have increased until in 1920 the exports were worth £146,565, the principal items in which progress has been made being cacao, coconuts, and limes.

DEATH.

The charge for the announcement of Births, Marriages and Deaths is 3/8 for three lines and 1/- for each additional line. Cheques, postal orders, etc., should be made payable to THE WEST INDIA COMMITTEE CIRCULAR, and crossed "Colonial Bank."

Convas.—On March 4th, 1922, at 53, Stradella Road, Herne Hill, London, S.E., Eva May, the beloved wife of Commander W. H. Coombs, R.N.

OUR WEST INDIAN LIBRARY.

The Editor will be glad to receive gifts of books, copies of publications relating to the Colonies, photographs of West Indian scenery, or local events of topical interest, and donations towards the Library Fund which will be duly acknowledged under this heading.

"THE CLIPPER SHIP 'SHEILA.'" By CAPT. W. H. ANGEL. London: Heath Cranton.

The question of labour in the British West Indian colonies has, ever since the abolition of slavery, been more or less acute. In 1841 the introduction of East Indians to British Guiana and Trinidad under indenture was begun and continued for many years. The main features of the system were that East Indians were recruited by Emigration Agents in India. The immigrants were under agreement to serve their employers for five years at a wage of 1s. 1½d. a day for able-bodied adults, and 8d. a day for those who did not come under that category. All of those who arrived in the colony before August, 1898, were entitled to a return passage to India or payment of one-fourth of the passage money in the case of men, and one-sixth in the case of women; and after ten years' residence men who wished to return paid only one-half the passage money and women one-third, the balance being paid by the employer. As a matter of fact, the East Indians were so happy and contented in the West Indies that only a small proportion availed themselves of the reduced fares. Emigration from India under indenture has been stopped by the Indian Government, and efforts are now being made to secure free immigrants from India. We have lately received a book, "The Clipper Ship 'Sheila,'" written by the master of that vessel, Capt. W. H. Angel. The ship belonged to the firm of Sandbach, Tinne and Co., and was launched in 1877, having been built especially for the trade of carrying indentured Indian emigrants to the West Indies. The book, after telling all about the dimensions of the ship and her equipment, etc., describes her first voyage from Calcutta with coolies on board. On August 30, 1877, 421 men, 120 women, and 85 children were taken on board at Calcutta, together with two native doctors. Captain Angel relates how, after being a month at sea, the Indians from being a poor, emaciated-looking lot of creatures on embarkation, under the influence of care and the best of food, were already putting on flesh. The Indians had their own cooks in strict accordance with their caste or faith. They were not only well fed on the voyage but were even supplied with clothing. Discipline and cleanliness were strictly enforced. Capt. Angel goes on to tell how well looked after the immigrants were when at work in their new homes. It was a penal offence for anyone to ill-use them. A stipendiary magistrate visited all the estates periodically and saw to it that the coolies were justly treated. Capt. Angel's account of the East Indians in British Guiana and Trinidad bears out the general view taken by those who know how they fared that, in spite of the outcry against indentured labour, the Indians who went to the West Indies under indenture were not only well treated, but when their time was up stayed in their country of adoption and prospered. While, perhaps, to the ordinary reader the descriptions of the voyage and the many trivial incidents that occurred on it, the songs that the crew used to sing, and so forth, may sometimes be rather too prolix, the author is interesting when he lands his Indians and describes what he saw of Trinidad and British Guiana.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Antigua's Export Duties.

Ordinance No. 1 of 1922 imposes a revised list of export duties on sugar, molasses and cotton. In the case of crystallised sugar, the duties range from three shillings per ton when the price is under £10 to 24s. 6d. per ton when it is between £29 and £30. Muscovado selling at under £14 is taxed at the rate of one shilling per ton. The duty on molasses from crystals is one shilling per 100 gallons, and from muscovado, two shillings. On cotton the duty is one

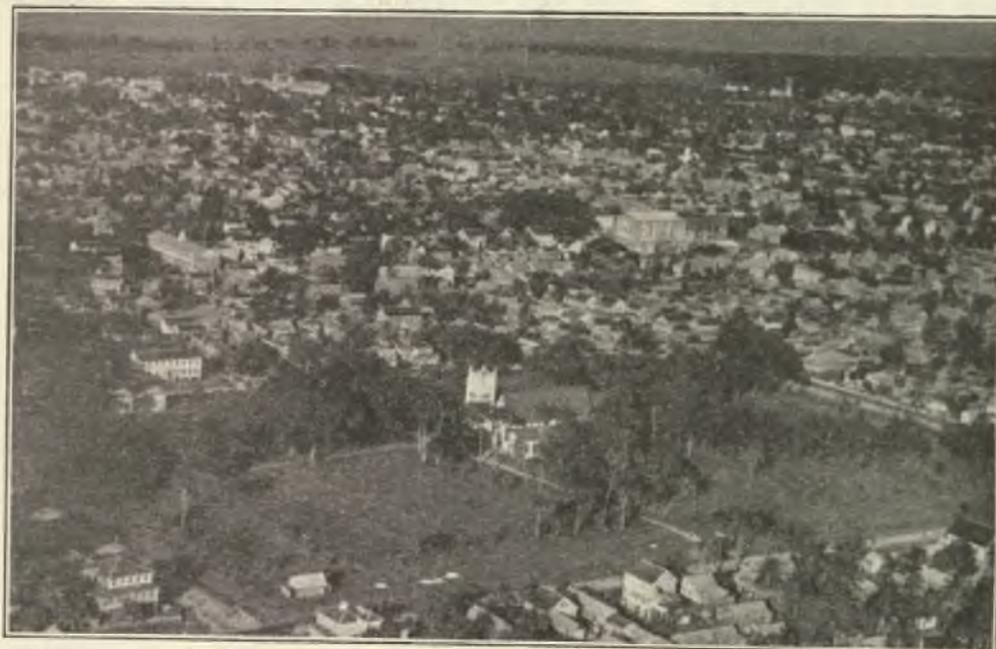
Holder's, Frenche's, Fairfield and Trent's plantations.—The death is announced of Mr. E. B. Clarett, the Government auctioneer.

Mr. Wood's Visit to British Guiana.

Mr. H. V. Fitzpatrick, writing on 3rd February, states that the Government has decided to defer until the end of the year the collection of Sea Defence taxes for 1922 on all sugar estates that are working. Assessments will be made as usual.—Major Wood and his party arrived on the morning of 2nd February, and spent the day in receiving addresses from the various associations and public bodies. These included the Mayor (Hon. M. Nascimento) and Council of Georgetown, and the Elected Members of the Combined Court, on whose behalf the senior Financial Represent-

tative, Mr. A. R. F. Webber, read an address, pointing out the grave position of the Colony's sugar industry, which was now facing a loss of from £7 nos. to £3 per ton, and that in consequence a complete cessation of work had taken place on six estates and the abandonment of several others was foreshadowed. Mr. Webber argued that the only immediately practical succour that was likely to save the industry was a doubling of the home preference until the crisis were past, the substantive preference now obtaining being further guaranteed for ten years. He went on to protest against the introduction of legislation restricting the use of foreign capital in the Colony, to plead for help in the opening up of the hinterland, and to urge constitutional changes whereby the Governor might not

have to preside over meetings of the Combined Court, that gaps in the ranks of the electives by absence or illness might be immediately filled, and a measure of colonial representation might be introduced into the Executive Council. After replying, Mr. Wood met representatives of the Royal Agricultural and Commercial Society, the Georgetown Chamber of Commerce and the British Guiana Sugar Planters' Association, the Hon. R. E. Brassington presiding. For the Chamber, Mr. Farrar dealt with the state of industry, the need of colonisation, the lack of adequate steamship and cable communications and the question of harbour improvements. Mr. Brassington voiced the needs of the sugar industry, stating that it was proposed to ask the local Government for a loan repayable over ten years, of £2 per ton of the output. In the course of his reply, Mr. Wood stated that if any plans could be devised for overcoming the difficulty that the deficiency caused by an increased preference would have to be made up by increased taxation in the United Kingdom, such plans should have the very earnest consideration of the Chancellor of the Ex-



An Aerial View of Georgetown.

This view of part of the Capital of British Guiana was taken from the direction of the Charlestown Ward by Major Cochran-Patrick, of the Bermuda and West Atlantic Aviation Company, who has recently been making Aeroplane flights in this Colony.

halfpenny when the price per pound of clean lint is under 2s. 6d. per lb., and one penny when it is 2s. 6d. and over.

Barbados and the Income Tax.

In a message to the House of Assembly on January 24th, the Governor announced that the services of Mr. C. H. Rickman, Chairman of the Jamaica Assessment Committee, would prove very valuable in connection with the administration of the recently enacted Income Tax, although Mr. Rickman would probably not be able to visit the Island until the autumn.—The following Commissioners, says the *Standard*, have been appointed under the Mosaic Disease Act:—Sir F. J. Clarke, Messrs. G. S. Evelyn, G. D. L. Pile, H. A. Bovell, and J. H. Wilkinson.—At a meeting of civil servants on January 31st, it was decided to petition the Government for the retention of the 25 per cent. additional salaries and war bonus.—The majority of the Bridgetown lightermen went on strike recently as a protest against wage reductions.—There has been a series of cane fires, affecting among other estates,

chequer, before whom he (Mr. Wood) promised to lay the sugar case as strongly as he could. On the following day, Mr. H. A. Britton led a deputation from the Farmers' Conference, when Rev. E. R. O. Robertson asked for an Imperial loan for schemes of irrigation and drainage, Mr. Ormsby-Gore, replying. In the afternoon representatives of the Labour Union were given an audience, led by Mr. A. V. Crane. Mr. J. A. Luckhoo, President of the Indian National Congress, then introduced a deputation representing that body, and Mr. Veerasawmy read an address asking on behalf of the East Indians that there be an irrigation and drainage scheme for rice growing and that Indian history be taught in the schools. The same afternoon a deputation from the older East Indian body, the East Indian Association, interviewed the Under Secretary, introduced by Dr. W. Hewley Wharton. On February 4th, Mr. Wood and his party, accompanied by a number of representative men, left by ship for Bartica. On arrival at Vreed-en-Hoop, the party were joined by Mr. J. J. da Silva, Member for West Demerara. The party then motored to Parika, visiting the sea defences on the way. At Bartica an address was read by Hon. F. Dias. Afterwards the Penal Settlement was visited, Mr. Wood being welcomed by Mr. R. C. Pook, the superintendent. Returning to Georgetown the following day, the party motored on the 8th to Berbice, where they were the guests of Sir Edward Davson. On the way halts were made at the villages of Buxton and Victoria, at each of which an address was presented. On arrival in New Amsterdam, the Under-Secretary was welcomed by the Mayor, Mr. J. O. Dow, who read an address. Mr. Abbensetts afterwards presented Mr. Wood with a locally-made casket constructed of lignum-vitæ and gold from the Colony. Mr. Wood referred to his reply as possibly the last he would be called on to make during his tour.

Mr. Arthur H. Hill has been appointed to act as Senior Immigration Agent during the time Hon. R. P. Stewart acts as Immigration Agent-General. Mr. W. Francis, F.I.C., has been appointed to act as Director of Science and Agriculture and Chairman of the Board of Agriculture.—The Government are inviting applications for \$3,838,150 six per cent. debentures at par, redeemable 1933-1975, and representing the unraised balance at December 31st of the five million dollar loan offered last July.

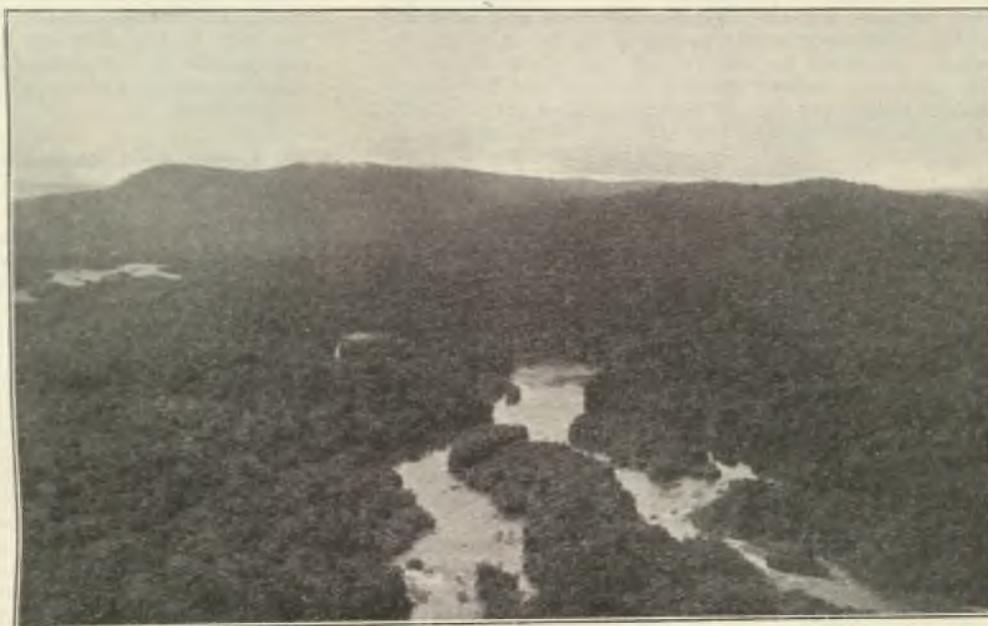
British Honduras Chicle Industry.

Public attention in the colony still seems largely riveted on the chicle export duties. The Hon. G. E. Graham intends to move in the Legislative Council a resolution for their reduction from 3c. to 1c. per lb., on the ground that by reason of their retention

at the higher figure, the Brazilian and other foreign trade (forming the bulk of the chicle exported from Belize) is being lost to the colony.—Special measures are being taken to safeguard inhabitants against a possible outbreak of influenza, a strong committee, with Captain Franco as chairman, having been formed for this purpose.

Mr. Wood in Grenada.

Details of the visit of Hon. Edward Wood and his party to Grenada are now to hand. Arriving from Barbados on January 18th, they were met by the Governor, heads of Departments, members of the Legislative and Executive Councils, and other prominent men. After the presentation of an illuminated



The Laminc Falls, British Guiana.

This beautiful view of a characteristic scene in the interior of British Guiana is from a photograph taken from the air by Major Cochran-Patrick.

address to Mr. Wood by Mr. A. E. Steele, Chairman of St. George's District Board, the members of the mission and the captain of H.M.S. *Valerian* were entertained to luncheon. The last-named, responding to the toast of the Navy, mentioned that when asked whether he read much in the West Indies he had to confess that he was too busy working when at sea and too busy being entertained when in port. In the afternoon the Hon. D. S. De Freitas introduced a deputation from the Agricultural and Commercial Society, when Mr. J. T. De la Mothe and Mr. G. A. De Freitas referred to the serious economic condition of the colony, other speakers being the Hon. F. R. Tarford, Mr. W. M. Malins-Smith and Mr. C. H. Lucas. Mr. Wood, in reply, said he could not hold out any great hope of an Imperial loan. As regards the colony's export tax on cacao, if this were removed, the brunt of the new taxation needed to take its place would be borne by much the same people, and heavy taxation was unfortunately now necessary. A deputation of Roman Catholics, headed by the Vicar-General, having been received, an audience was given to the members of the Grenada Union of Teachers, to

whom Mr. Ormsby-Gore replied. The following day the Commission was busily occupied from 9.30 to 4.30 (with a short interval) receiving deputations, which included representatives of the Medical Service, the District Boards, the Representative Government Association and the Chamber of Commerce. Mr. John Barclay, Mr. C. V. C. Horne and Mr. R. C. Fitt represented the Chamber, the subjects dealt with including income tax, preference on cargo, steamship communications and an Imperial loan, the need of which was urged by Mr. Horne in the interests of the peasant proprietors. For the Representative Government Association, Mr. T. Albert Marryshow, Mr. C. F. P. Kenwick and Mr. C. H. Lucas pleaded for an extension of the concession already granted by the Home Government, to admit of the security of the representative principle. Mr. Wood, who stated that he was a little disappointed that the granting of the elective principle appeared to be so coldly received, promised to recommend that there should be five elected members instead of four, and five single district constituencies. There followed a garden party, at which were present the Marquis of Salisbury, Sir Edward Davson, Lady Ormsby-Gore, and Lady Wood. Mr. T. Albert Marryshow, Editor of the "West Indian," had the privilege of travelling to Trinidad with the Colonial Office party in H.M.S. *Valerian*.

Mr. Wood Visits the Pitch Lake.

Mr. Alick G. Hamlyn, writing on February 14th, states that Mr. Edward Wood, on the morning of January 31st, had a conference with Dr. Wise, the Surgeon-General, and afterwards inspected the site for the proposed Agricultural College before leaving with his party for Demerara in the afternoon. He returned from Demerara on Sunday, February 12th, and next day visited the Pitch Lake and oilfields at La Brea. If time permitted he intended also to visit the waterworks at Diego Martin and Cocorite before embarking for England by the *Oranje Nassau* on February 14th.—Two large passenger steamers, on pleasure cruises from New York to Latin American and Caribbean ports, have called at Port-of-Spain, the *White Star Megantic* on February 2nd, and the Canadian *Pacific Empress of Britain* on February 5th. Each had about 300 tourists on board.—His Excellency Sir S. H. Wilson made his first official visit to Arima on February 8th, and was presented with an address of welcome by the Mayor, Mr. C. H. J. de Gannes.

Extension of Jamaica Government Railway.

Mr. A. W. Farquharson left the Island on February 20th with the object of obtaining improved preferential treatment of Jamaica's industries in the Home markets.—Friction between soldiers and police occurred in Kingston on the nights of February 17th and 18th, resulting in several casualties among men of the West India Regiment, for whom all leave in the capital was consequently stopped.—A sensational escapade is also reported from *Savanna-la-Mar*, where on February 13th a constable, named Barrett, ran amok, shooting and bayoneting Corporal Samuels, keeping the crowd at bay with his rifle and finally setting the police-station on fire before he could be overpowered and put under restraint.—On February 18th at Montego Bay, His Honour W. Coke Kerr, O.B.E., presided at the unveiling by Mr. A. H. Browne, Chairman of the Parochial Board, of a portrait of the late Mr. Samuel Hart, the business man to whom much of the successful development of Montego Bay was due.—The 53rd Synod of the Anglican Church was in

session in Kingston from February 6th to 10th under the presidency of Bishop de Carteret, who delivered a weighty and impressive address.—The scheme to erect a Memorial Clock Tower in King Street in honour of Jamaicans who fell in the war, has been revived.—The proposed extension of the Jamaica Government Railway from Chapellton to Frankfield in Clarendon has now been approved by the Secretary of State, and is estimated to cost £172,000.

WEST INDIES AT WESTMINSTER.

Penny a Pint and Penny a Pound.

Mr. Hilton Young (Financial Secretary to the Treasury), informed Mr. Gideon Murray, on 2nd March, that the estimated cost to the revenue of a reduction of 1d. per pint in the duty on beer as now sold, and of 1d. per pound in the duties on tea and sugar would be approximately £26,000,000, £1,500,000 and £11,000,000 respectively.

St. Lucia and Representation.

Mr. Churchill, on 6th March, informed Sir Joseph Wood that he awaited the report of his honourable friend (Mr. Wood) on his recent visit to St. Lucia, before coming to any decision with regard to the petition from inhabitants of that Island praying for the creation of elected representatives to the local legislature, and he was therefore not in a position to make any statement at present.

More about Kelham.

Major Barnston informed Mr. Mosley on March 7th that Home Grown Sugar, Ltd., had not paid any dividend either on capital advanced by the Government or on that subscribed by the public. Home Grown Sugar, Ltd., had been incorporated on 13th February, 1920. The first accounts had been made up to 31st March, 1921, and there being no profit available for distribution, the Government had paid £9,186 8s. 6d. to Home Grown Sugar, Ltd., in June last as interest on the share subscribed by the public in accordance with their guarantee to the company. The Government would continue to pay such interest, if necessary, until 1930 unless the company ceased operations as sugar beet manufacturers or went into liquidation.

A Comparison in Colonial Taxation.

In answer to Mr. Wise, on March 8th, Mr. Churchill supplied the following table showing the taxation per head (including indirect taxation) in certain British Colonies, including British Guiana, Jamaica and Trinidad:—

	£	s.	d.
Straits Settlements and F.M.S.	4	7	5
Hong Kong	2	6	0
British Guiana	3	1	0
Trinidad	3	18	8
Jamaica	1	7	8
Mauritius	2	8	0
Gold Coast	1	0	0
Ceylon	13	0	
Kenya	12	6	
Uganda	4	10	
Nigeria	3	8½	

This, he added, was only a rough estimate.
[Taxation in the United Kingdom is £26 per head.]

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.

Telegrams—
"Carib, London."



15, BERTHING LANE,
LONDON, E.C.3.
March 14th, 1922.

BANK RATE. 4½ per cent. as from February 16th.
EXCHANGE. Value of the £ Sterling.

	Feb. 28th £ s. d.	Mar 14th £ s. d.		Feb. 28th £ s. d.	Mar 14th £ s. d.
In U.S.A. ...	18 2	18 2	In Spain ...	1 2 0	1 2 0
.. France ..	118 4	118 10	.. Germany ..	49 2 9	55 3 0
.. Belgium ..	2 0 4	2 1 8	.. Austria ..	805 0 0	1274 0 0
.. Italy ...	3 8 7	3 9 8	.. Holland ..	19 0	19 0

The intrinsic value of the gold sovereign is £1 2s. 6d.

SUGAR. The New York market has showed considerable strength during the fortnight, the price of duty paid Cubans, after some fluctuations, rising to 3.92 c. yesterday, equivalent to 2.31 c. c.i.f. and 2.14 c. f.o.b. The futures market quotations yesterday were: May, 2.49 c.; July, 2.84 c.; September, 2.54 c.

Demand in the home market has been good, and there has been a general rise in prices. Home granulated yesterday was quoted at 47/9; American granulated, spot, 47/-; West Indian crystallised, 41/8 to 44/-; white Mauritius, spot, 44/- to 44/8; Cuban, 96 deg. e., c.i.f. 12/10½.

Terminal market values were: For 96 deg., May, 14/-; July, 14/-; and September, 14/-. Values for white were: 19/2½, 19/8 and 19/3 respectively.

Sales of San Domingo, 96 deg., were made for Europe at 2.20c., f.o.b., for April delivery, on the 11th, and of Cubans for Japan and Europe on the 10th at from 2.15 c. to 2.20, f.o.b.

The imports of sugar into British India for the eight months ending November, 1921, were 478,450 tons, as against 147,106 tons in the corresponding period of 1920. 484,425 tons of the former came from Java. The estimated Indian crop of cane sugar for 1921-22 is 2,592,000 tons, an increase of 69,000 tons on the crop of the preceding campaign.

The Board of Trade returns for February show that the imports for the month amounted to 151,187 tons, as against 105,074 tons in January. They consisted of 28,285 tons of "refined," and 122,892 tons of "unrefined." Of the refined, 9,280 tons came from Holland, 8,872 tons from Czecho-Slovakia, and 17,505 tons from the United States. In the unrefined class, 68,957 tons came from Cuba, 44,556 tons from Mauritius, and 4,701 tons from the British West Indies, including British Guiana. The contribution of the home refineries for the month was 66,525 tons, and the total consumption for the 28 days of February 109,745 tons, as against 129,111 tons in the 31 days of January. The stocks on hand on February 28th were 141,650 tons, as against 110,000 tons on January 31st. The quantity of imported refined sugar on hand was 14,650 tons, as against 14,000 tons at the latter date.

The West Indian sugar statistics in London on March 4th were:—

	1922.	1921.	1920.
Imports ...	2,030	5,014	8,400 Tons.
Deliveries ...	5,327	8,346	6,144 "
Stock ...	1,398	5,072	10,392 "

RUM. There is some inquiry for home trade qualities of Jamaica, both for spot and to arrive, but other sorts are neglected.

The imports for February amounted to 188,219 proof gallons, as against 139,532 gallons in January, and the amount which went into consumption during the month was 145,238 gallons, as against 166,479 gallons. The exports were 22,399 gallons, as compared with 16,865 gallons in January. The stocks on hand on February 28th were 11,689,000 gallons, as against 11,802,000 gallons on January 31st.

The stocks in London on March 4th were:—

	1922	1921	1920
Jamaica ...	11,121	9,114	6,751 Puns.
Demerara ...	18,890	15,456	12,518 "
Total of all kinds	39,491	34,724	27,386 "

OACAO. During the past fortnight the market has been quiet, but steady. At auction to-day fine Grenada was in good demand, and sold at 59/- to 60/-, but other sorts were quiet.

The month's imports were 164,770 cwts., as against 166,751 cwts. in January. Only 7,418 cwts. came from the British West Indies. The quantity exported was 25,216 cwts., as against 23,224 cwts. in January. The month's consumption was 97,157 cwts., an increase on the 89,590 cwts. of January. The stocks on hand on February 28th were 712,000 cwts., comparing with 463,000 cwts. on January 31st.

The stocks in London on March 4th were:—

	1922	1921	1920
Trinidad ...	6,390	23,657	23,267 Bags.
Grenada ...	16,031	22,025	17,133 "
Total of all kinds	104,856	132,256	115,877 "

ARROWROOT. A quiet business is passing at unchanged prices—3½d. to 7½d., according to quality.

BALATA is lower, and prices are nominal in the absence of an active demand. West Indian sheet is quoted at 3/1 c.i.f., and spot 3/4.

BAY OIL is inactive, with buyers expecting lower prices.

COFFEE. Fine home trade qualities are in good demand, but lower descriptions are slow. Costa Rica is 2/- to 3/- dearer on the fortnight. No Jamaica has been offered, and values are nominally unchanged. Imports of West Indian during February amounted to 42 cwts., as against 440 cwts. in January. Total imports for the month were 254,208 cwts.

COPRA is steady to quiet, with West Indian f.m.s. valued at £25 15s. c.i.f. Holland, and £25 5s. c.i.f. London.

COTTON has been in fair request, and quotations of most descriptions are higher. A fair business has been done in West Indian Sea Island at steady rates: medium 28d., fine 31d., and extra fine 40d. Imports in the eight weeks ended February 23rd, 286 bales.

HONEY. There is only a very restricted demand, and where sales have been effected, the tendency of prices has been easier. Dark liquid to dull setting yellow is valued at 30/- to 45/- per cwt., and dark to pale amber 30/- to 45/-.

LIME PRODUCTS. Lime Oil. There is no business reported in Handpressed, and value is unchanged. Only a very small business is passing in Distilled, but prices are steady. **Lime Juice.** Some business in Raw is passing at 1/10 to 2/7½, according to quality, but Concentrated continues neglected.

LOGWOOD remains unchanged and neglected. Last nominal quotation, £10 per ton.

ORANGE OIL. Further small sales of Sweet have been made on the spot at 9/6, but there is no demand for Bitter.

RUBBER. The market has been more active, and prices are firmer. Spot sheet and crepe are quoted at 8½d.

SPICES. The market for spot **Pimento** remains very dull, and it is impossible to make progress to any extent at 2½d. per lb. There are sellers at 20/- per cwt., c.i.f. Hamburg, for March to June shipment. There is less inquiry for **Ginger**, but reports of another short crop in Jamaica should tend to keep prices firm. **Nutmegs** and **Mace** are very dull, and at the last auction scarcely anything sold.

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The West India Committee Rooms.

Telephone:
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CARIB, LONDON.



15, SEETHING LANE,
LONDON, E.C. 3.

March 28th, 1922

THE QUALITY OF FANCY SYRUP.

IN our issue of February 16th last we published a letter which had appeared in the Barbados Agricultural Reporter of December 24th, 1921, from a Canadian buyer of Barbados fancy molasses, calling attention to a great many complaints that he had received regarding the quality of that product recently imported into Canada. This matter subsequently formed the subject of an interesting paper read by PROFESSOR J. P. D'ALBUQUERQUE, the island chemist, before the members of the Barbados Agricultural Society on January 27th. In this paper the Professor was able to show that the suggestion that the syrup had been adulterated with "black strap" molasses—that is to say, the molasses from 96° test sugar—was shown to be without foundation, and that the cause of the complaint lay in the lower quality of the product. The Agricultural Reporter, commenting upon PROFESSOR J. P. D'ALBUQUERQUE'S paper, points out that the present manner of manufacturing syrup is quite different from what it was twenty years ago. Then every windmill estate and small steam works manufactured its own syrup, chiefly with copper evaporating batteries in the open, which gave better opportunities for freeing the syrup from impurities than the closed system of recent years. Where syrup, our contemporary remarks, is still made by the same process, the flavour and quality of it is still satisfactory; but in factories equipped with eliminators and triple effects, the same result as regards quality cannot be obtained. The acid juice comes in contact with iron, which darkens it, while the impurities cannot be properly removed. PROFESSOR J. P. D'ALBUQUERQUE, indeed, states as regards the latter that, although the dark colour and inferior flavour of the shipments complained of may have been in

part due to the influence of the drought experienced last year in the island upon the quality of the cane juice, the large sediment noticed was the result of inefficient straining and skinning. To secure a clear, pale syrup of the requisite flavour, PROFESSOR D'ALBUQUERQUE made the following very practical recommendations:—

1.—Keep everything in the boiling house as scrupulously clean and sweet as though a high quality grocery sugar was being made.

2.—Avoid contact of the liquor with iron as far as possible; traces of iron greatly darken the syrup.

3.—After tempering and cracking the liquor, run the clarified hot liquor through a small battery of three or more wire strainers of diminishing mesh, so as to remove as completely as possible the fine particles of megass which are left in the liquor, render the syrup cloudy, darken its colour, and lead to an objectionable sediment on standing.

4.—During boiling in the copper battery, clean by skimming and straining with fine mesh wire gauze strainers, as if making grocery sugar, only with still greater care.

5.—Run the finished syrup into scrupulously clean stone or concrete coolers, provided with covers, to keep out dust.

6.—Deliver in new puncheons which have been sterilised by the use of a live steam jet.

If the use of unsuitable apparatus is the principal cause of the decline in the quality of fancy syrup, the same cannot be said in respect of chicle. That product, one of the staples of British Honduras, is, as most of our readers are aware, a substance bled from sapodilla tree, and used in the preparation of that popular confection known as Chewing Gum. It would appear from the informative report on British Honduras for the year 1920, written by LIEUT.-COLONEL MAXWELL H. SMITH, Colonial Secretary, that, tempted by the high prices prevailing for chicle during the season 1919-20, all who could rushed into the business, placing on the market gum far below the usual standard of quality, with disastrous results. In consequence of this mad rush to snatch profit at the cost of reputation, there was a considerable falling off in the demand during the following season. The gum manufacturers became chary about buying chicle in British Honduras owing to the poor quality which had been supplied to them at the advanced prices, and transferred their patronage to the Far East, where they could procure a natural gum which was gradually coming to the front as a substitute for chicle in the manufacture of chewing gum. The future now lies with the producers and sellers of chicle in British Honduras. If they maintain a high quality of excellence for their product, they will secure the continued patronage of the American and Canadian chewing-gum manufacturers. If, on

the other hand, they fail to do so, they will inevitably divert the trade to the Far East. What is happening in regard to chicle has occurred, and is occurring from time to time in respect of other kinds of West Indian produce, and a visitor to the Sale Rooms in Mincing Lane in recent years cannot fail to have been struck by the poor quality of much of the crystallised sugar, for example, which was sent over to this market during the period of high prices, thus prejudicing seriously the demand for that product.

THE HEALTH OF BRITISH HONDURAS.

OF the total number of deaths registered in British Honduras annually, 25% are shown by DR. T. W. GANT, Principal Medical Officer, in his annual report, to be those of children under one year of age, whilst no fewer than 40% are of children less than five years old. Such an infantile mortality as this, even in face of the very satisfactory birth-rate, must act as a check on the normal increase in the population of the colony, which in a country where food is easily obtainable, the climate good, and the conditions of life easy, should be extremely high. The causes of this high infantile mortality are various and complex. Indian children suffer during epidemics of measles, scarlatina, mumps, whooping-cough, and other diseases, chiefly of childhood, far more severely than children of European or Asiatic descent, who have acquired a hereditary immunity from these complaints; whooping-cough in epidemic form is especially fatal amongst them. They suffer, in common with adults, from malaria and dysentery, especially at the commencement of the rain, while, before the campaign against it, hook-worm was present to the extent of over 80 per cent. amongst the children of many Indian villages; and, if not actually causing death, very frequently lowered the vitality of the child to such an extent as to render it an easy victim to the incidence of other diseases. The two main causes of the high infantile mortality in the colony are, however, undoubtedly: (1) illegitimacy, with the want of natural affection for, and proper care of the children which so frequently follow in its train; and (2) improper feeding. Chicleros, mahogany cutters, and other labourers frequently leave their families in the towns imperfectly provided for, while they return to their work in the bush for from 8 to 10 months in the year, with the consequence that the children are neglected by their mother, who finds it difficult enough to procure food to keep body and soul together. Indeed, though life is easy, nature provides bountifully, and the conditions for raising babies are excellent, but children are no more popular in this colony than in the crowded tenement-houses or fashionable flats of a large city. Many children in the colony are fed from birth on a practically straight diet of arrowroot and water, and their survival at all is a wonderful proof of the adaptability of the human stomach and intestine to even the most unfavourable and unnatural conditions, for such a diet is almost entirely lacking in all the food elements necessary for the proper nutrition of a grow-

ing baby. A great and increasing number of mothers prefer not to suckle their children, so that the babies lose the best food supply of all for the first few months of their life.

DR. GANT gives an interesting account of the outbreak of yellow fever in Guatemala, and of the measures taken to try and prevent its introduction into British Honduras. The first intimation received by the Government of the latter country was in a message from the United Fruit Company, on August 16th, 1920, to the effect that three cases of the fever had developed in Los Amates, 60 miles from Puerto Barrios. All trains were, therefore, forbidden to stop at Los Amates, round which a military cordon was established, no one being allowed to enter or leave, whilst treatments with prophylactic vaccine and curative serum were vigorously undertaken. Meanwhile, at the ports of British Honduras, all persons arriving from Guatemala were placed under strict quarantine. The weak links in the quarantine chain were formed by the numerous small settlements along the coast, frequently visited by Carib doreys carrying on a brisk smuggling trade between Guatemala and the colony, since the crews and passengers underwent no inspection on landing, and were under no supervision afterwards. To guard against the possibility of the introduction of the disease in this way, a close police patrol was sent along the whole southern littoral of the colony, the man at each station being provided with a sailing dorey, and the whole chain of patrols supervised and assisted by the Government launch, "Panther." In addition to this, a reward of \$25.00 was offered by the Government to any person giving information leading to the conviction of any owner or captain of a boat landing in the colony, at any place other than a port, from any part of the Republic of Guatemala. These precautions, so far as could be ascertained, seem to have been effective in preventing the landing of Carib doreys from Guatemala, but it is unfortunate that we should have to record that after the close of the period covered by this report yellow fever should have been introduced into British Honduras. But the outbreak was soon checked, and would have been worse but for the vigilance of the administration. The conclusions at which one arrives after reading DR. GANT's valuable report are that the local medical service is keenly alive to the requirements of the situation, and that what is needed is a greater support on the part of the community to the efforts that are being made in their interest.

Owing to the carelessness of our printers, two lines were omitted from the second column of the leading article dealing with the West Indian Agricultural College in last issue. It was intended to point out that the new enterprise was one of the most important pieces of constructive work carried out in connection with the West Indies for many years. It was also desired to point out that though some time must elapse before the College buildings are erected, teaching would be begun in temporary premises earlier than was anticipated.

NOTES OF INTEREST.

"WHEN breeze no blow, tree no shake."

* * *

THE Indian Government has raised the duty on imported sugar to 25 per cent. *ad valorem*,

* * *

THE imports of cacao from the West Indies into Canada last year were 5,589,686 lbs., and not as recently stated.

* * *

THERE were in bond in the United Kingdom on February 28 nearly 3½ gallons of proof spirit, 7 lbs. of sugar and 5 lbs. of tea per head of population.

* * *

MR. JOHN Q. ROWETT, the well-known rum merchant and patron of the Antarctic Expedition, is to take the chair at the annual banquet of the Wine and Spirit Trade Benevolent Society on May 2nd.

* * *

REV. R. L. MACNIE, St. Andrew's, Georgetown, British Guiana, has been appointed to the church and parish of Loth, Sutherlandshire, Scotland, and the induction took place on Wednesday, 29th March.

* * *

THE *Australian Sugar Journal* states that the Colonial Sugar Company of Australia has put upon the market a new description of power alcohol. The wholesale price is 2/10½ per package in Melbourne, and it is claimed to give the same power result as petrol.

* * *

IN the course of a lecture given by Sir D'Arcy Power recently at the Royal British Nurses' Association Club, it was mentioned that Sir Thomas Woodall, a famous surgeon, stamped out scurvy in the Navy by the use of lime juice in the seventeenth century.

* * *

AT the present price of sugar, the cost of production of sweetened aerated waters, including duty, delivery, advertising and all overhead charges, is 2s. 0½d. per dozen. The cost of the sugar is slightly over 2d., and the duty is nearly 3d.

* * *

A FILM called "The History of the Banana" has been recently released and shown in Liverpool. It illustrates the whole method of banana cultivation in the West Indies. In a short sequel, entitled "If we only knew," the value of the banana as a means of preventing influenza is depicted.

* * *

THE types of coffee are two, the "rich" and the "acid." In the case of the former there is a full body, smooth texture, and rich colour. Mysore, Java, ordinary Jamaica, and ordinary Costa Rica belong to this class. The "acid" coffees are full of flavour and aroma, and of these, Jamaica Blue Mountain and fine Costa Rica are examples.

* * *

SIR JOHN HARRISON, C.M.G., is making good progress towards recovery after his operation, in spite of a severe attack of malaria of the aestivo-autum-

nal type, which caused a temporary set-back, and must delay his convalescence. Sir John is still in the nursing home at Tunbridge Wells, and some weeks must still elapse before he is out and about again.

* * *

A MODERN chocolate factory is being erected at Claremont, near Hobart, the capital of Tasmania, by the English firms of Cadbury, Fry, and Pascall. Between £300,000 and £400,000 of capital is being invested in it. The scheme includes provision for workmen's homes, shops, and public buildings, with 56 acres for playgrounds and recreation purposes.

* * *

THE United States takes the lead in the possession of motor cars, with 9,211,395. Great Britain comes next with 420,000, closely followed by Canada with 408,000. France has 202,000, Australia 78,000, Germany 75,000, Italy 35,000, Cuba 31,000, and Holland 20,000. India has only 25,550. There is one car to 11 inhabitants in the United States, as against 1 to 12,838 in India.

* * *

WHAT must be the record price of £1 10s. 9d. was recently paid for a banana from Jamaica. This was on board R.M.S. *Camito*, whose cargo of green fruit refused to ripen, to the intense disappointment of the passengers, who had learnt to enjoy the fruit greatly during their stay in Jamaica. When a single fine ripe specimen was found it was put up to auction, the proceeds being given to charity.

* * *

THE last member of the expedition which visited British Guiana last year to investigate filariasis, returned with the bulk of the material in mid-January, and Professor R. T. Leiper, M.D., D.Sc., and his assistants are now actively engaged in working up the mass of specimens collected. It is not, however, anticipated that the report will actually be published for some months, as it is of a somewhat technical character.

* * *

A CONSIDERABLE number of distillers in Cuba are now manufacturing alcohol for motor purposes, and production is stated to be quite up to the local market requirements. With molasses at its recent price of 2 cents per gallon, it is said that a motor spirit can be produced which can be sold at 20 cents per gallon. The retail price at the end of last year was 27 to 30 cents a gallon, as against 45 cents for gasoline.

* * *

A LARGE grocery store in the Edgware Road has adopted a system in connection with sugar which, if largely extended, would be a material factor in increasing consumption. For every purchase of goods to the extent of 5/- over an initial outlay of 2/6, the purchaser is entitled to purchase sugar at an increasingly cheaper rate, until when the purchase amounts to 95/-, seven pounds of granulated sugar are supplied free.

* * *

THE Compagnie Générale Transatlantique, who recently arranged for their West Indian and Colon

steamers to call at Plymouth, have decided that in future their New York liners—outward and homeward bound—shall call at that port to embark or land passengers. The first homeward call will be on May 3rd, and the first outward call on May 14th. It is forty years since the Company's New York boats called at Plymouth.

The members of the Royal Navy Club of 1765 and 1785 dined in the Edward VII. Rooms, Hotel Victoria, on March 21st, to commemorate Lord Rodney's victory over Comte de Grasse in the Battle of the Saints, on April 12th, 1782. Rear-Admiral Hyde Parker, C.B., presided, and the guest of the evening was Sir Julian Corbett, the distinguished naval author. Every West Indian flag should be flying on 12th April.

DR. JOHN HUTSON, of Barbados, has called the attention of The West India Committee to a remarkable case of delay in the delivery of a registered letter from Jamaica. The letter was posted at Mandeville, on January 7th, and was delivered in Barbados on February 18th—42 days later. This serves to emphasise the lack of communication between Jamaica and the other West Indian islands, about which it is hoped that Mr. Edward Wood may have something to say. Formerly, Barbados used to be reached from Jamaica in three or four days.

H. P. AGEE, Director of the Hawaiian Sugar Planters' Experiment Station, has, says the *Louisiana Planter*, a lost, homeless and nameless cane variety that he is trying to match up with published descriptions. As one way of finding out what it is and whence it came from he has photographed the culprit and is sending the likenesses all over the world asking experts in other cane countries to track down the fugitive and give it a name. Samples of the cane itself cannot be forwarded to other countries, because cane countries are suspicious of one another, and have elaborate quarantine systems to guard against infection from that sort of exchanges.

The old days of the buccaners and pirates are recalled by the vigilance of the United States prohibition authorities and the ruses resorted to by bootlegging schooners to escape from their clutches. Chases are of frequent occurrence, and lately a fresh terror has been added to those that the rum-runners have to face by the use of armed seaplanes. American exchanges record the capture of the British schooner *Annabelle*, which had cleared from the Bahamas with 11,500 cases of whisky aboard, by a fleet of four armed airplanes. This episode occurred in Jewish creek, forty miles south of Miami—and yet they say that the United States is a free country!

THE Marquess of Salisbury, invited to give to the Circular a note of the impressions which he formed of the British West Indies on his recent tour through those colonies, wrote on March 25th: "I look back upon my visit to the West Indies as one of the most pleasant and interesting in my life. The beauty of

the scenery, the unbounded hospitality with which we were received, the great interest which the political problems present, and above all the wonderful loyalty and attachment to the Mother Country which we witnessed, will always remain a great recollection to me. I am afraid, like all other parts of the Empire, the West Indies are going through many difficulties at the present time in the economic sphere. Let us hope that when the good times come again—as assuredly they will do—the West Indies may have their share in returning prosperity."

MISS CARRINGTON, of Missenden Abbey, formally opened a nurses' home in connection with the Royal Bucks Hospital, at Aylesbury, on March 9th, with a golden key, which was presented to her. Mr. Eyre, thanking Miss Carrington for her kindness, referred to the splendid work which her brother, the late Mr. George Carrington (who died in 1916, and was for 13 years a member of the board) had done for the hospital. Mr. Carrington will be remembered in Barbados as the proprietor of the estate which bears the name of his family. He was also for many years a member of the Executive of The West India Committee. It was to perpetuate the memory of his charitable work that it was decided to establish the nurses' home, the provision of which was one of his special aims and wishes. Mrs. Napier Higgins then generously contributed two thousand guineas for the purpose, stipulating that the home should be regarded as a memorial to her father, Sir Thomas Tryingham Bernard, as well as to Mr. George Carrington.

THE gifted young author of "Sonia" and other novels, who recently made the round tour to British Guiana and back, writes to the Circular: "The West Indies, like all other countries, have to be visited at least twice in order that the traveller on his second voyage may repair the errors and omissions of the first. My own capital mistake lay in coming back too soon; and, whatever faults I commit on my next journey, this at least will not be repeated. I knew something of the tropical heat that was awaiting me, and something, too, of the natural beauty which I should find. I was in no way prepared for the glowing warmth of hospitality shown me wherever I went on the islands or the mainland. Having visited Barbados, Grenada and Trinidad, I now want to make one of these my base, and to explore thence the northerly and westerly islands. And, having seen the coast of British Guiana from Georgetown to New Amsterdam, I want, on my next visit, to go up country and to explore some of the big rivers. This part of the world is an ideal refuge for anyone who wishes to escape an English winter, and I look forward keenly to my next visit."

EDDOE FRIES.—To 1 lb. of stewed eddoes, beaten to a pulp, add 5 beaten eggs and 2 spoonfuls of flour, a little black pepper and salt. Taking up a spoonful of the mixture at a time, dust it with flour and drop it in boiling lard. Then fry a clear brown, and serve with a sauce of melted butter, vinegar and mustard.

EAST INDIAN IMMIGRATION.

Colonisation Deputation in Guiana.

The Emigration Bill, 1922, as amended by the Indian Legislative Assembly, has now been adopted by the Council of State, and only awaits the sanction of the Viceroy before it becomes law. The main feature of the enactment (which repeals the Indian Emigration Act, 1908) is that "emigration, for the purpose of unskilled work, shall not be lawful, except to such countries and on such terms and conditions as the Governor-General in Council, by notification in the 'Gazette of India' may specify in this behalf," after the approval of both Chambers of the Indian Legislature has been given. Both the Central Government and the Local Governments of India are empowered to suspend emigration from particular ports to countries where serious epidemics have broken out. In order to emigrate skilled workers, the Bill requires special application to be made to the Local Government having jurisdiction over the port of embarkation, in which the emigration agent must state what security he proposes to furnish for the proper treatment of the emigrant and his dependents.

The definition given of an emigrant as "any person who departs under an agreement to work for hire in any country beyond the limits of India, and any person who is assisted to depart otherwise than by a relative for the purpose of working for hire or engaging in agriculture," etc., is important. A further clause authorises Local Governments in India to appoint Protectors of Emigrants, who, amongst other duties, are to inspect vessels bringing return emigrants on their arrival, and inquire into the treatment received by the return emigrants, both during the period of their residence overseas and during the return voyage. The Governor-General, in Council, is also authorised to appoint agents in the countries where there are Indian immigrants, to safeguard their interests. For the complete text of the Bill, together with the comments and amendments recommended by the Select Committee appointed to report on it, readers are referred to the "Gazette of India" (Part V.), for January 21st, 1922.

Concurrently with the receipt of this information came the news of the arrival of the Colonisation Deputation of the Indian Government in British Guiana. Comprising, as already announced, Dewan Bahadur P. Kesava Pillai, M.L.C.; Pudit Venkatesah Narayan Tiwary; and Mr. Gerald F. Keatinge, Esq., C.I.E., it was accorded a hearty welcome at a meeting held at the Town Hall, in Georgetown, on February 16th, at which His Excellency the Governor presided.

The proceedings were opened by Dr. W. H. Wharton, Chairman of the British Guiana East Indian Association, who laid stress on the fact that in that part of South America there was no difference as regards race, colour or creed. In British Guiana the East Indians enjoyed as much right as their European brethren or any other member

of the community. In the hands of the delegates now rested the welfare of the Empire, because to develop the colony would be to assist in building up the economic wealth of the Empire. If the colony received the necessary help from India, he was sure that each member of the community and the Empire itself would be benefited. The prosperity of all was in the hands of the delegates, whom they were there to welcome.

The Secretary of the Association then read an address of welcome, in which the signatories recorded their satisfaction at the termination of the indenture system, thus closing a dark chapter in the colony's history, to which they looked back with unqualified disgust, and emphasised their pride in the numerical preponderance of their race over others in the colony. Calling attention to the need of Government support in the direction of drainage and irrigation for the rice industry, they pledged their united support to Indian colonisation if requirements were met in respect of this, and also housing accommodation, medical and sanitary requirements, transport facilities, a pure drinking-water supply, money grants and other facilities, so that the incoming colonists would be provided with conditions necessary to their settlement on the land.

Pundit Tiwary, who spoke in Hindustani, was non-committal. He and his colleagues had come, he said, to report on the conditions prevailing, and it was on their report that the authorities would act. He had, he added, been particularly struck with what he had seen exemplifying the freedom of the Indians. Mr. Keatinge also spoke, but declined to venture an opinion on the subject of their investigations, and Mr. Pillai said that directly he arrived in the colony he felt at home on account of the welcome he had received.

The Governor, who followed, expressed his firm conviction that British Guiana would progress whether East Indians came to it or not.

A meeting with the British Guiana Labour Union followed on February 20th, when Mr. H. Critchlow, the Secretary, painted a most dismal picture of the surroundings and conditions in which the East Indian labourer worked and lived in the colony.

From Fiji comes the disconcerting news that the Indian Deputation which is visiting that colony has taken up the attitude that in no circumstances will India permit Indians to go abroad to work for hire, but will only allow farmers with capital and experience to emigrate. This is in direct contradiction of the terms of the Indian Emigration Bill, and if this attitude is persisted in, India must not be surprised if her people are cold-shouldered in certain colonies.

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

CACAO THIRPS IN SURINAM.

The damage done by the disease attributable to thrips had been overlooked for a long time in Surinam, the loss done to it being ascribed to the witch-broom disease which, since 1895, has put a check to the development of cacao cultivation in that colony. Mr. Reyne, in a valuable report published in the Bulletin of the Department of Agriculture of Surinam, says Surinam cacao plantations no longer fear the latter disease, as they can easily combat it, but the cacao-thrips is a cause of great loss of crop and also of many trees. The result has been that new cacao plantations are no longer laid out, and trees that die out from the disease are usually replaced by coffee.

After giving an account of the occurrence of the disease, and of the damage done by it in other countries, notably Brazil and San Thomé, the author says that in Surinam, "brown pods," which have to be scratched with the finger nail to see whether they are ripe, have been noticed since 1884. Some years later a new disease appeared, which the planters called the leaf disease, and the symptoms of which were that the leaves became covered with yellow and brown spots, subsequently falling. It was only in 1906, after the Agricultural Experiment Station was started, that it was discovered that the "brown pod" and "leaf" diseases were identical.

After describing the cacao-thrips, which is stated to be identical with the *Heliothrips rubrocinctus* Glard described by Franklin in 1908, and detailing the methods of examination used, and the history of its life-stages and habits, Mr. Reyne says that light is much sought after by the thrips, which, when discovered beyond the limits of the plantations, is always found in sunny, exposed places, and never where there was dense shade. Indeed, many severe outbreaks of thrips have occurred in Surinam following the heavy pruning of cacao and shade trees.

In Surinam, it is noticed that thrips are most abundant in times of drought, and diminish in number during heavy rains, due, not to being washed away, but because the latter condition is unfavourable for multiplication.

Several plants which have not hitherto been recorded as food for thrips have been found to be so in Surinam. Among these are *Eugenia javanica* Lam, *Eugenia Malaccensis*, Lam, *Bixa Orellana* L., *Canarium Commune* L., *Coccoloba Uvifera* Jacq., *Coccoloba Latifolia* Lam, *Triplaris Surinamensis* Cham, and *Psidium Polycarpum* Lamb. Thrips do not feed on Liberian coffee, as has been stated to be the case.

Little is known as to origin of thrips, but it is stated that tropical America may safely be considered as its native heath.

In Surinam, there has been for many years great loss of trees, no fewer than 2,269 acres having been thrown out of cacao cultivation between 1902 and 1908, or one-seventh of the total area. This loss was formerly looked upon as being immediately due to *Diplodia Cacaecola*, or "die-back" disease, a fungus supposed to attack, by preference, trees

weakened by witch-broom or thrips; but the author considers it to be almost entirely due to the latter disease.

As regards methods of control of the disease, the following general recommendations are made:—

(1) The shade should be maintained equal, and all spaces filled up as soon as possible.

(2) The pruning of shade and cacao trees should not be too heavy.

(3) The soil should be kept moist in the dry season by mulching, with irrigation if possible.

(4) Care should be taken that the cacao should not become weakened by bad drainage, borers, exposure to the wind, etc.

For trees already infected with thrips, spraying with two per cent. milk of lime is recommended as being superior in results to the use of contact insecticides.

WHAT IS CHOCOLATE?

At the annual meeting of the Manufacturing Confectioners' Alliance, held on February 15th last, the subject of "What is Chocolate?" was discussed. In this connection the chairman, Mr. Pascall, brought before the meeting the proposal made at the Seventh International Congress of Applied Chemistry, twelve years ago, by Mr. Norman Booth, Messrs. Cadbury Brothers' chief chemist, who suggested the following definitions:—

(1) *Unsweetened chocolate* must be prepared exclusively from roasted, shelled, finely-ground cacao beans, with or without the addition of a small quantity of flavouring matter, and should not contain less than 45 per cent. of cacao butter.

(2) *Sweetened Chocolate*.—A preparation consisting exclusively of the products of roasted, shelled, finely-ground cacao beans and not more than 65 per cent. of sugar, with or without a small quantity of harmless flavouring matter.

(3) *Granulated or Ground Chocolate for Drinking Purposes*.—The same definition as for sweetened chocolate should apply here, except that the proportion of sugar may be raised to not more than 75 per cent.

(4) *Chocolate-covered Goods*.—Various forms of confectionery covered with chocolate, the composition of the latter agreeing with the definition of sweetened chocolate.

(5) *Milk Chocolate*.—A preparation composed exclusively of roasted, shelled cacao beans, sugar, and not less than 15 per cent. of the dry solids of full-cream milk, with or without a small quantity of harmless flavouring matter.

It was ultimately decided to refer the matter to the Council of the Alliance so that a Committee might be formed to consider the whole question.

WANT.

GENTLEMEN recently arrived from West Indies open to appointment in England. Complete knowledge of West Indian trade generally, with good organising ability. All references.—Apply "E. E." c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, E.C.

"ESKIMO PIE."

Our valued contemporary *Tropical Life* was entrusted by some Trinidad cacao planters with the task of providing an Eskimo Pie for the recent Royal wedding. Our readers will at once ask, What is an Eskimo Pie? The answer is to be found in the blocks of ice-cream that were so familiar in a certain caterer's establishment last summer. It appears that when ice-cream is dipped in cacao-butter, the latter has the same effect as the vacuum in a Thermos flask, enabling, as it does, the ice to maintain its frigidty for many hours, so that one can buy the pie in the morning, and take it home for the evening meal, when it will still be in perfect condition. It is said that the popularity of these delicacies recently made a marked difference in the New York cacao-butter market.

It appears that in the United States Mr. Christian K. Nelson has obtained the grant of a patent for the manufacture of Eskimo Pie, one half of which he has assigned to the Russell Stover Co., of Chicago. The fact that the Company claims it has fifty-six other patents pending in connection with the principle of this confection would indicate the amount of protection they deem necessary for the discovery and its application.

In his specification of letters patent, which is reproduced in the *Candy Factory* of Chicago, Mr. Nelson defines his invention as a commercially practical coated brick or block of ice cream or the like, stating that its object is to provide a frozen dainty with an edible encasement which can be easily handled, as well as to provide a confection "comprising a normally liquid centre and an enclosing member of such shape as will be adapted to provide a receptacle for the centre during its consumption as food or refreshment." It would seem that the advantages offered by chocolate and cacao-butter as the outer casing lie in the fact that these materials are of a thickness and consistency adapting the pie to retain its shape and form at ordinary temperatures, but are not so brittle, when hard that it will crack when a sharp instrument is used to cut it.

It is to be hoped that the Eskimo Pie will obtain the same popularity in this country as it apparently has in America, thus benefiting the producers of cacao.

THEOBROMINE IN CACAO.

In a paper recently read at the Society of Public Analysts on "The Theobromine Content of Cacao Beans and Cocoa," Mr. Raymond V. Wadsworth pointed out that the analyses of cacao beans from twenty-one different producing areas showed a variation in the theobromine content of the nib from 2.2 per cent. to 3.9 per cent. calculated on the dry fat-free material. The variation was due (1) to the variety of the bean (the Criollo bean containing much less theobromine than the Forastero), and (2) to the amount of fermentation the bean has been subjected to (fermentation reducing the theobromine considerably).

In the shell the theobromine varied much more than in the nib. The variation found was between 0.10 per cent. and 2.89 per cent. This difference was wholly due to fermentation. During the process the alkaloid was brought by the sweatings from the nib to the shell, the amount naturally present in the shell being only 0.10 per cent. During roasting there was practically no loss of theobromine from either nib or shell. The analyses of twenty-two brands of commercial cocoas showed a variation in the theobromine content of 2.89 per cent. to 3.55 per cent., calculated on the dry fat-free cocoa.

THE DOMINICAN REPUBLIC.

A Record Sugar Crop.

The Fordney Law practically shuts out from the American market sugar grown in Hayti and the Dominican Republic, with the result that the various Chambers of Commerce in the latter country have approached the Military Government in an endeavour to obtain a reciprocity treaty with the United States. The matter has been referred to Washington, says Mr. C. K. Ledger, H.M. Charge d'Affaires in Santo Domingo, in a report issued by the Department of Overseas Trade, but it is doubtful whether anything definite will be decided either way until the question whether the United States will remain in occupation or a national government be set up is settled.

The year 1920 brought unprecedented prosperity to the Dominican sugar industry, and the crop was the largest on record, totalling 77,796 tons, while the average sales price of \$12.65 per quintal was more than double the price of \$3.98 realised on the 1919 crop, and four times that received in any pre-war year. The 1921 crop was expected to exceed that of the previous year. In view of the passing of the boom period, most of the estates have cut wages, and made other reductions in expenditure.

The three other major staples of the Republic are tobacco, cacao and coffee. The 1920 cacao crop was a good average one, as far as size is concerned. The yield from the 110,000 acres devoted to this staple totalled 51,457,795 lbs., as against 49,620,337 lbs. in the previous year. The first few shipments to leave the island brought excellent prices, but before the bulk of the crop could be picked and marketed the demand had slackened so persistently that the average sales price for the crop was fully 25 per cent. less than that realised for the previous harvest. Owing to a prolonged drought the coffee crop proved a dismal failure. Exports of this staple in 1920 were the lowest recorded within the past ten years, and amounted to but 1,338,826 pounds, valued at \$265,937, whereas in the preceding year foreign shipments totalled 4,860,781 pounds, invoiced at \$947,421. The outlook for the new crop was favourable, according to the report.

Meanwhile, as a result of trade depression, the Agricultural Experimental Station at Haina has been closed down, and very little interest is taken in bettering the methods of cultivation.

SUGAR PRODUCTION IN EUROPE.

By F. I. SCARD, F.I.C.

The writer of this article, tracing the development or otherwise of the European beet sugar industry during the past thirty-five years, is indebted to Mr. Truman G. Palmer's admirable loose-leaf work, "Concerning Sugar," for the statistics given in it. Throughout, the short ton of 2,000 lbs. is used.

RUSSIA.—In 1886-87, the area under sugar beet cultivation in Russia was 731,400 acres, which gave 580,045 tons of raw sugar. The yield of beets per acre was 7.10 tons, and the extraction of raw sugar from them 10.21 per cent. The exports amounted to 62,405 tons. Development proceeded steadily until 1911-12, in which year 1,944,677 acres were in cultivation, which yielded 2,255,306 tons of raw sugar, with a beet yield of 7.59 tons per acre, the sugar extracted from them rising to 15.29 per cent. By this time, the exports had grown to 634,925 tons. From that point a decline set in, and in 1921, there were only 528,678 acres in cultivation, which only gave 183,680 tons of raw sugar, the tonnage of beets per acre having sunk to 2.73 tons, and the extraction of sugar to 12.50 per cent. The estimate for 1921-22 is 112,000 tons.

GERMANY.—In 1886-87, 634,193 acres of beet were harvested in Germany, 13.38 tons of beets being obtained to the acre. The total quantity of raw sugar produced was 1,116,595 tons, 12.18 per cent. being obtained from the beets. In that year, sugar was imported to the extent of 5,088 tons, and 781,118 tons exported. Development proceeded, in spite of the operations of the Brussels Convention in 1903 and following years until the war, the apex of production being reached in 1913-14, when 2,993,704 tons of sugar were produced from 1,816,655 acres. No less than 14.18 tons of beets were reaped per acre, and the high proportion of 16.03 per cent. of sugar obtained from them. The exports that year amounted to 1,218,077 tons, rather less than the record figure of 1,256,033 tons in 1905-1906. During the war, the production declined, falling to 828,000 tons of sugar in 1919-20; but in the following year it rose to 1,200,000 tons, and the 1921-22 estimate stands at 1,500,000 tons.

AUSTRIA-HUNGARY (New Austria, Hungary and Czecho-Slovakia).—Austria-Hungary in 1886-87 already produced 612,107 tons of raw sugar, obtaining 12.95 per cent. from the beets. The imports, as they have been all along, were negligible, but the exports amounted to 819,260 tons. The industry developed steadily, the output being only subject to the fluctuation of crop due to seasons, up to 1912-13, when 2,096,134 tons of sugar were produced, 14.94 per cent. being obtained from the beets. The area in cultivation that year was 1,109,479 acres, and the yield of beets 12.65 tons per acre. The maximum of export, 1,193,130 tons, was reached this year. The year of the breaking up of the Empire, 1917-18, gave 683,577 tons, only 6.92 tons of beets being obtained per acre, and the exports that year amounted to 440,920 tons. What was left of Austria proper in 1918-19 only produced

9,112 tons of sugar, given by four factories. But 5.27 tons of beet were grown per acre, from which only 10.22 per cent. of sugar was obtained. By 1920-21, however, there was some revival, 15,250 tons of sugar being made. The yield of beets per acre also rose to 8.11 tons, and the sugar extraction to 15.86 tons. It is estimated that in 1921-22, 17,045 acres are in cultivation.

In Hungary, 9,274 tons of sugar were produced in 1919-20, and 36,779 in 1920-21.

The bulk of the old Austrian sugar industry has survived in Czecho-Slovakia. There, last year, 788,413 tons of sugar were produced, with a beet return of 9.72 tons per acre, and an extraction of 17.03 per cent., and the exports amounted to 366,099 tons. The current crop is estimated at 644,846 tons.

FRANCE.—The area of beets reaped in France in 1886-87 was 379,323 acres, which gave 558,205 tons of raw sugar; 14.23 tons of beets were obtained per acre, and the sugar extraction was 10.34 per cent.; 159,485 tons of sugar were imported, and 188,008 tons exported. The quantity of sugar produced rose, with considerable fluctuations in the area of beets under cultivation, until 1901-02, when the maximum production of 1,223,112 tons of sugar took place. During that crop, 13.85 tons of beets were obtained per acre, and a sugar extraction of 11.87 per cent. The exports were 562,724 tons, below those of the previous year, when 796,728 tons were exported, and in this particular there was a steady decline in subsequent years. In 1913-14, 800,890 tons of sugar were produced, with a beet yield of 13.06 tons per acre, and an extraction of 12.87 per cent. The exports that year were only 209,437 tons. The lowest point in production was reached in 1918-19, in which year only 134,860 tons of sugar were made, the yield per acre also sinking to 7.10 tons; 145,307 tons were, however, exported, and 525,789 imported. In 1920-21, however, the production rose to 341,600 tons, and the estimate for the 1921-22 crop is 319,200 tons.

BELGIUM.—In 1886-87, the output of raw sugar in Belgium was 123,458 tons, 10.77 per cent. being extracted from the beets; 15,873 tons of sugar were imported, and 109,238 tons exported. The industry gradually increased in importance, and in 1905-06, 361,334 tons of raw sugar were produced, with a yield of 14.72 tons of beets per acre, and an extraction of 13.92 per cent. The imports by this time had been reduced to 7,165 tons and, conversely, the exports had risen to 210,539 tons. In 1913-14, there were 135,411 acres harvested, which gave 330,969 tons of sugar. The war reduced the crops, and in 1918-19 the output was only 81,570 tons. Substantial revival, however, subsequently occurred, and in 1920-21, 275,575 tons of sugar were produced from 123,550 acres. The 1921-22 crop is estimated at 308,644 tons.

HOLLAND.—In Holland, the production of sugar in 1886-87 was 43,929 tons, and that year 127,600 tons were imported and 109,192 tons exported. Development proceeded rapidly, and in 1898-97 there were 109,680 acres in cultivation, from which

180,687 tons of raw sugar were produced. The yield of beets per acre that year was 12.82 tons, and the extraction of sugar 13.49 per cent.; 90,278 tons were imported, and 194,506 tons exported. In the following years, considerable fluctuations took place, but in 1912-13 the acreage had risen to 170,499 acres, and the sugar crop to 348,327 tons; 48,076 tons of sugar were imported, and 244,159 tons exported. During the war years, the industry dropped considerably, 190,157 tons being registered for 1918-19, but a strong revival took place, and in 1920-21 156,829 acres were reaped, which gave the record crop of 358,248 tons, with a yield of 14.80 tons per acre, and an extraction of 15.44 per cent. The imports and exports for that year are not available, but in 1919-20 they were 45,688 tons and 145,467 tons respectively. The estimate for the 1921-22 crop is 369,271 tons.

ITALY.—Particulars for Italy are not available before 1863-4, in which year 148,811 tons of raw sugar were produced, 12.39 tons of roots being obtained per acre, with an extraction of 13.50 per cent. The imports of sugar, which in 1886-87 were 150,808 tons, had now sunk to 2,405 tons. In 1913-14, the sugar output had risen to 874,247 tons, in that year 19.61 tons of beets having been reaped per acre, and an extraction of 12.50 per cent. obtained. The war caused a drop of output to 100,874 tons in 1917-18, only 8.81 tons of beets being reaped per acre. The 1921-22 crop, however, has yielded 225,972 tons, 12.06 tons of beets having been obtained per acre, although only 10.25 per cent. was extracted.

SWEDEN.—In respect to Sweden, no figures are available, showing the area in cultivation in 1886-87, but in that year 62,153 tons of beets were harvested, from which 6,400 tons of raw sugar were manufactured, 10.30 per cent. of sugar being obtained from them. In 1894-95, the area in cultivation had risen to 32,706 acres, which gave a yield of 13.14 tons per acre. The extraction had risen to 11.60 per cent., and the output of sugar was 80,347 tons. After 1894-95, considerable fluctuations took place in the amounts of sugar produced, the biggest output being 191,690 tons in 1910-11, when 15.74 per cent. of sugar was obtained from a yield of 14.03 tons of beet per acre. During the years 1911-12 to 1919-20, the crops varied between 140,874 tons and 169,882 tons, but in 1920-21, 183,697 tons of raw sugar were produced from 11.46 tons of beet per acre, with an extraction of 15.76 per cent. The 1921-22 crop is estimated at 184,800 tons. Sweden has never been an exporter of sugar.

DENMARK.—In 1898-99, Denmark produced 39,242 tons of sugar, 10.22 tons of beets being grown per acre, and an extraction of 12.03 per cent. of sugar obtained. The output steadily increased until 1914-15, when 173,061 tons were produced, with the increased extraction of 15.63 per cent., and a beet yield of 14.69 tons per acre. A set-back then occurred, and the crop fell to 130,071 tons in 1916-17. It subsequently rose to 173,893 tons in 1919-20, but the 1921-22 crop is only estimated at 134,400 tons. Denmark does not export sugar.

ALCOHOL FOR POWER PURPOSES.

Some Hints for Distillers.

The following hints as to the requirements of a distillery for the manufacture of etherized alcohol for motor purposes are taken from an article by Mr. J. P. Foster in the *Sugar Central and Planter's News* of the Philippines. In selecting a still for Motor Alcohol plants, the following characteristics should be insisted upon:—

(a) It should have a capacity in terms of 95 per cent. alcohol, of at least 50 per cent. greater than the required output of the plant, and should operate at maximum capacity on 7 to 8 per cent. wash, with loss in the lees not to exceed one-tenth of one per cent.

(b) It should be as nearly automatic in operation as possible, and its automatic operation should be as far as possible inherent in the still. That is to say, it should not depend upon auxiliary regulating devices.

(c) Its heat economy should be high.

(d) Provision must be made for quickly, easily, and thoroughly cleaning the still.

This last requirement is of the greatest importance where molasses is to be the raw material, and the wash section must be provided with *man*-holes, not *hand*-holes, in each chamber.

Probably the most important point in the selection of the alcohol still is that mentioned in the first specification, i.e., its capacity. There will inevitably come a time when it will be necessary to rush through an unusual amount of wash, or there may be some trouble in the fermentation, so that the wash will have only half of its usual alcohol content. If the still has no "over-load capacity," the quality of the output will suffer, alcohol of lower proof will be run, the quality of the ether will be correspondingly affected, and the Motor Alcohol will fall below standard. It is most important that the quality of output be kept uniform. If the proof of the alcohol be allowed to vary from day to day, every variation will be carried through, to a greater or lesser extent, into the fuel tank of the motor, with unsatisfactory results to the operator. Install a still "too big" rather than one "big enough."

Of equal importance with the alcohol still is the ether still and its auxiliaries: The condenser and the ether purifier, or "scrubber." Everything written above about the alcohol still capacity and the necessity for uniformity of output, applies with equal force to the ether still. Greater care must be exercised in the purchase of an ether apparatus than in an alcohol still, for the reason that while there are many builders who know how to build a first-class alcohol still, there are not so many who know how to build an ether apparatus for Motor Alcohol. The general specifications for the ether still should be:

- (1) It must be built of, or lined with, the best grade of chemical lead obtainable.
- (2) It must be provided with a heating system

constructed of the best grade of chemical lead.

- (3) The shell of the still must be constructed so that the entrance to the still may be quickly and easily obtained for the purposes of repair or renewal.
- (4) The heating system must be constructed so that it may be readily removed for repair or renewal.
- (5) A safety "blow-off" device must be provided, so that in case the still "blows," no damage to life or property will occur.
- (6) A suitable means of determining the level of the boiling liquid must be provided. A sight glass is worthless.
- (7) An automatic vacuum breaker must be provided.
- (8) A suitable lead-lined entrainment trap must be provided, with drainage back into the still.

The "scrubber," in its ultimate effect upon the general fuel produced, is the most important apparatus in the distillery, and it may also be safe to say that it is the least understood. Its function is to neutralise the ether, ridding it of entrained or vaporised sulphuric acid from the still. There are four important specifications to be insisted upon on the purchase of a scrubber:—

- (a) Suitable means must be provided for neutralising the ether.
- (b) Suitable means must be provided for completely neutralising the ether.
- (c) Suitable means must be provided for completely neutralising every drop of ether which leaves the scrubber.
- (d) Suitable means must be provided for preventing the escape of a single drop of ether which has not been completely neutralised.

Then, after the apparatus has been purchased, installed, and put into operation, be sure that the ether is neutral, completely neutral, always completely neutral.

The trade of the United States with the British West Indies in 1921, as compared with that in 1920, was:—

	1921.	1920.
Imports into U.S.A.	\$13,942,060	\$23,102,189
Exports from "	21,564,703	46,437,304
Total Trade	\$38,506,772	\$69,539,493

The following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :—

- "The Manufacture of Cane Sugar," by Jones and Scard; 26/-.
- "The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/-.
- "Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.
- "The Cane Sugar Factory," by F. I. Scard; 3/-.
- "The Pocket Guide to the West Indies"; 7/6.
- "West Indian Tales of Old," by Algernon Aspinall; 8/-.
- "The British West Indies," by Algernon Aspinall; 9/6.
- "Historic Jamaica," by Frank C. Cundall; 8/-.
- "A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6.
- These prices include postage.

HON. JOHN DYMOND.

It is with deep regret that we have to announce the death, in his eighty-sixth year, of the Hon. John Dymond, the well-known and esteemed Managing Editor of the *Louisiana Planter*, a post which he had occupied for no fewer than thirty-four years.

Born in Canada of English parents in 1836, John Dymond began his business career as a clerk in the cotton manufacturing firm of his father, in which he afterwards became a partner. He subsequently became a member of a New York brokerage firm, which led to his connection with the Louisiana sugar industry as an estates' proprietor, managing his own property. In this capacity he took an active interest in sugar politics, and it was through his instrumentality that the Louisiana Sugar Planters' Association was formed. His political activities were, however, subordinate to his interest in the internal affairs of the sugar industry, especially as regards organisation and the encouragement of scientific and research work, and among his achievements in this direction was the establishment of the Sugar Experimental Station in Audubon Park. He was elected a Senator of the United States in 1900, and was re-elected in 1904 and again in 1912, serving until 1920; but it is as a pioneer of progress in the Louisiana sugar industry and the Editor of one of the most liberal-minded sugar journals in the world, that his name will go down to posterity.

"THE MANUFACTURE OF CANE SUGAR."

The *Louisiana Planter* of February 18th, reviewing "The Manufacture of Cane Sugar," by Idwelyn Jones and Frederic I. Scard, published under the auspices of The West India Committee, says:—

This book is handsomely illustrated with 243 cuts, thus visualising every phase of the sugar industry, and this is done excellently well. It is handsomely bound in buckram and makes a 5¼ by 9-inch volume of 500 pages on high-grade paper and is beautifully printed.

A short history of the sugar cane is given with illustrations of the varieties, of the methods of their growth and culture. The various kinds of cane mills are shown, single, double and multi-gear, of preparatory machines, cane shredders, cane crushers, etc.; the various methods of cane juice clarification and filtration, the concentration of the cane juice into thin syrup and its final concentration into sugar in open pans or in vacuum pans. All these are considered, illustrated and described. The multiple use of heat by evaporation *in vacuo*, a process made possible by an American inventor, Norbert Rillieux, of Louisiana, and the final purging to dry sugar in Weston's centrifugals, another American invention, and the sugar crystals are ready for bagging.

Economic bagasse burning is now the great desideratum in the cane sugar industry and first-class sugar factories in Cuba can turn out sugars of 96 per cent. test, with the bagasse produced and using no bought or other fuel. This and other phases of steam generation are fully discussed and illustrated, as is also the final disposition of the by-products.

Copies of "The Manufacture of Cane Sugar" can be obtained at The West India Committee Rooms, price 25s. each, or 26s. post free.

THE WEST INDIA COMMITTEE.

At a meeting of the Executive, on March 23rd, the following thirteen candidates were admitted to membership of The West India Committee, making the total number of members elected this year 41.

Names.	Proposers and Seconders.
Mr. Otto Oppenheimer (London).	Mr. A. Hirsch. Mr. William Gillespie.
Mr. Ross P. Harries (Tobago).	
Lieut.-Colonel A. R. Davis (London).	Mr. Robert S. Reid. Mr. John B. Murray.
Capt. the Hon. R. Plunkett-Erle-Erle- Drax, D.S.O., R.N. (Country).	Mr. William Gillespie. Mr. W. A. Griffin.
Mr. J. M. Brodie (Mauritius).	Mr. R. Rutherford, Mr. Cyril Gurney.
Mr. E. N. Walcott (Country).	The Hon. Allan Granam, C.M.G.
Mr. J. Powter (Trinidad).	The Hon. H. A. Tempang, D.Sc., F.I.C., F.C.S.
Messrs. Edward W. Turner & Son (Country).	Mr. Robert Strang. Mr. Gerald O. Case.
The Hon. Cecil Clementi, C.M.G. (British Guiana).	Mr. Bernard T. Bouyun. Mr. F. J. Morris.
Mr. F. A. Corea (St. Vincent).	Mr. M. Garnett. Mr. William Gillespie.
Mr. W. R. Murray (Country).	Mr. R. Rutherford. Mr. Cyril Gurney.
Rev. James Williams	Messrs. Dawson, Shores & Punch. Messrs. Jones, Brown & Sons. Mr. E. A. Haggart. Lieut.-Col. Ivan Davson, O.B.E. Lieut.-Col. Ivan Davson, O.B.E. Mr. Mesbuen Garnett.

MOLASSES FOR STOCK FEEDING.

The Ministry of Agriculture and Fisheries has issued a leaflet on the subject of the use of molasses for stock feeding which is misleading.

As regards molasses itself, it says: "It has a thick, black appearance, with a sweetish taste, and contains 60 to 70 per cent. of sugar. The rest of the molasses consists of salts and water."

Cane sugar plantation molasses is of a brown colour, with a rich smell, contains about 55 per cent. of sugars and only from 16 to 25 of water, the remainder consisting of a small quantity of nitrogenous matter, gums, and salts.

In connection with absorbents, beet pulps, spent hops, tapioca meal, soya bean meal, sugar-cane pith, apple pomace, and sphagnum moss are mentioned, and it stated that the chief objection to the use of molasses foods thus prepared is that the absorbent replaces a part of the straw used with liquid molasses, which would otherwise be consumed.

The leaflet ignores the fact that the sugar-cane pith used in Molascuit is digestible, and that in its preparation the molasses are concentrated, with the result that Molascuit contains as much sugar, if not more, as the original molasses. Its dry, friable condition also renders handling an easy matter.

A BALLADE OF RATION RUM.

The CIRCULAR is indebted to Mr. J. B. Blair, of Greystones, Kilmacollm, Renfrewshire, for this original ballad, which was composed by an officer on active service:—

Shall I, by dull convention led,
Sing wine in yet another lay,
And say again what has been said
In nobler numbers yesterday?
Bacchus indignant answers "Nay,
'Twere best to be discreetly numb,"
Yet I've a debt of praise to pay
That morning tot of Ration Rum.

I had been numbered 'mongst the dead,
My end unlit by glory's ray.
No German lead, but germs instead,
Had laid me 'neath the Flemish clay.
But I was saved. Full well I may
Offend the tender ears of some
Whose principles would take away
That morning tot of Ration Rum.

The sun is up. Its ball of red
Heralds a wild and bloody day.
The shrapnel hurtles overhead,
Shrieking in lust to rend and slay.
Our hearts are very far from gay:
Our feet are ice, our fingers numb.
One saving solace is our stay:
That morning tot of Ration Rum.

ENVOI.

Arch not your eyebrows, Princess, pray,
Nor think your scorn has struck me dumb,
For BENEDICTUS SIT, I say,
That morning tot of Ration Rum.

"F. F."

(Late Capt. 33rd Batt. Highland Light Infantry.)

AMERICAN SUGAR REFINING CO.

The annual report of the American Sugar Refining Company for the year 1921 shows a loss on operations of \$2,177,275, as against a profit of \$1,802,487 in 1920. The capital of the company is \$90,000,000.

In addition to its refining interests, the company owns a property in Cuba producing 65,000 tons of sugar. It also holds shares in the domestic beet industry to the par value of \$18,045,400, besides a property in connection with which the company had lost \$1,000,000, and that was to be taken over by a new company.

The report complains bitterly of the effect of Government control in the United States and Cuba on sugar. "For these experiments of Government control and of decontrol the people of the United States and of the world have paid hundreds of millions of dollars. The magnificent sugar industry of the United States, including the producers and refiners, both beet and cane, whether of Continental, United States, the Philippines, Hawaii, Porto Rico, or of Cuba, has paid almost with its life."

THE AGRICULTURAL COLLEGE.

The badge of the West Indian Agricultural College, reproduced on this page, was designed in accordance with the instructions of a sub-committee of the Governing Body by Mr. MacDonald Gill. It was felt that it would be invidious to embody in it any single economic plant, such as the sugar-cane or cacao, and consequently the Royal Palm was chosen as being common to the West Indies as a whole. The sun (let it be hoped of success and prosperity) is seen rising over an heraldic Caribbean Sea behind three mountains, symbolic of the island in which the headquarters of the College are to be situated.



Agricultural College Badge.

TWO RECENT REPORTS.

Agriculture in St. Lucia.

The report of the Agricultural Department of St. Lucia for the calendar year 1920 states that during the year, owing to the high price obtaining for sugar and its products, that industry received considerable attention from both planters and peasants, the quantity of sugar imported during the year being 4,029 tons, of the value of £146,316. Molasses and syrup to the value of £28,160 were also exported. There was a considerable decline in the exports of cacao, only 8,986 cwts. being shipped, as compared with 16,870 cwts. in 1919, lack of shipping facilities and general depression in the cacao market being stated to be contributory causes.

As regards the lime industry, the equivalent of 42,587 barrels of limes was exported, rather less than the record crop of 1918, but slightly over that of 1920. The value was £12,894. Very considerable extensions continued to be made in the areas devoted to coco-nut cultivation; 1,801,272 nuts and 169 cwts. of copra were exported during the year, and it is stated that it is expected that within a very short period these exports will assume considerable proportions.

In connection with the minor industries, that of honey showed a marked increase, the 1920 exports reaching 61,086 lbs. On the other hand, the bay oil industry was making no progress, only 603 gallons having been shipped during the year. Experience, it is stated, has shown that there is no lack of bay leaves in the Colony, and that if the present factories could be run steadily and continuously during the year, a very satisfactory and profitable industry could be built up. As regards

cotton, owing to the high prices offering some isolated attention was paid to this cultivation, with the result that 4,345 lbs. of Sea Island lint was exported during the year, but the report states that this is but a speculative crop in St. Lucia. The logwood industry was receiving attention, 1,134 tons having been shipped during the year, an increase of 780 tons in the export of the previous year.

Faulty Cacao Cultivation in Nigeria.

The Report of the Agricultural Department of the Southern Provinces of Nigeria for the period January, 1920, to the 31st of March, 1921, states that as regards general agriculture the quantity of cacao exported was, in 1920, 343,100 cwt., of the value of £1,237,588, as against 514,223 cwt. in 1919, of the value of £1,067,678.

As was pointed out in last year's report, the higher prices for cacao have done little or nothing toward bringing about better cultivation, and have had the effect of discouraging fermentation. The decreased export has had its natural effect in a diminished revenue from the export duty on this product.

The export of cotton in 1920 amounted to 65,156 cwt., of the value of £716,732, as against 60,220 cwt. in 1919, of the value of £484,774.

The native cotton industry has been in a very healthy condition for three chief reasons: (1) the increased prices offered for seed-cotton (up to the end of June, 1921); (2) the introduction of the alloy coinage and its popularity in the place of the smaller currency notes; (3) the small movement of other produce, whereby the mercantile firms and middlemen have been influenced to purchase cotton more energetically. In fact, cotton buying, in most places where it is common, has been the chief commercial activity.

It is regrettable, however, the report states, that this fortunate state of affairs is not likely to be of long continuance. As is foreshadowed by the British Cotton Growing Association, the present very low demand and prices for the native cotton (caused principally by the general existing deflation and the virtual cessation of the German demand for cottons of the poorer kind) will cause a serious fall in the prices offered by the Association, a circumstance that will be all the more discouraging to farmers after their experience of the high prices during the period under report.

The removal of shipping restrictions and the increased importation of foodstuffs is stated to have led to a greater export of maize. In 1920 the shipments were 14,328 cwt., of the value of £11,269, as against 351 cwt., valued £198, in 1919.

The exports of coconuts remain insignificant. In regard to copra, which is chiefly produced at Topo (Badagri) the exports have fallen from 402 tons, value £11,542, in 1919 (the year of the largest shipment) to 222 tons, worth £8,508, in 1920.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The number of yeast cells in an ounce of pressed yeast is calculated to be not less than fifty thousand million (50,000,000,000), all keen on work when the opportunity presents itself.

* * *

There are three sugar factories in Canada which manufacture sugar from beet. They are situated in Ontario. In 1911 20,677 acres were reaped, yielding 21,327,639 pounds of sugar. In 1917 14,000 acres were reaped, which yielded 23,376,850 pounds of sugar; and in 1919 16,800 acres, which gave 37,839,271 pounds.

* * *

In the course of an article on bay rum in the *Agricultural News*, Mr. F. Hardy recommends that it should be made by mixing 5½ pints of bay oil, 8 fluid ounces of orange oil, 7 fluid ounces of pimento oil, 40 gallons of alcohol, 30 gallons of water, and 5 lbs. of calcined magnesia.

* * *

According to the United States Trade Commissioner at Warsaw, the Polish bristle industry is recovering from the effects of the war, and a normal production of 5,812,000 pounds of bristles is expected annually. On an average a hog yields a pound of bristles. There are thus 5,812,000 pigs in Poland, and about 20 to the square mile. The Polish bristle is of the best technical quality, being long and elastic.

* * *

The Government of Perak, one of the Federated Malay States, is stated to be clearing an area of 50,000 acres for the cultivation of the African oil palm, the soil and climate having been found to be well adapted for its growth. The labour and transport conditions are also very favourable to the commercial success of the industry. At present Southern Nigeria, the Gold Coast, Sierra Leone, the French Ivory Coast, and the Congo are the chief homes of the palm oil industry.

* * *

The *Journal* of the Agricultural Society of Jamaica for October contains some useful notes on the subject of the treatment of the seeds of maize before being planted, and especially those of Guinea corn, to prevent them being eaten by mice, rats, ants, and birds. For Guinea corn it is recommended that wood ashes should be damped with kerosene, and the seeds, after two or three hours' soaking in water, coated with it. Ordinary maize can be treated either in this way, or with coal tar thinned with kerosene.

* * *

The effect of manganese compounds on plant growth has been made the subject of experiment by E. P. Deatrick. With wheat seedlings it was found that, when present in comparatively high concentration, both the sulphate and the chloride exercised a toxic effect, but a marked stimulation in smaller quantities. The toxic influence was shown in the browning of the roots and the bleaching of the leaves, the yellow leaves being found to contain more manganese than the green leaves.

Low concentrations of manganese sulphate were found also to stimulate the ammonification of dried blood.

* * *

The Kauri gum industry of New Zealand has received a new impetus since the war ended. Until recent years its development was left entirely to individuals, but three years ago the Government established a department for the supervision and encouragement of the industry, with the result that operations are now being carried out by companies as well, on more systematic and scientific lines than those hitherto employed. The gum is now being gathered mechanically from the peat which contains it by sluicing and screening. It is expected that from twelve to fifteen thousand tons of gum will now be produced annually, instead of eight or nine thousand.

* * *

Some interesting experiments on the stimulation of plant growth in cuttings by treatment with chemical compounds have been made at the Agricultural Experiment Station at Cornell University by O. F. Otis. The results of these demonstrate that treatment with potassium permanganate may produce a very marked increase in root growth in various woody cuttings, and that manganese dioxide, manganese sulphate, aluminium chloride, ferric chloride, ferric sulphate, boric acid, and possibly phosphoric acid may at times have a slight stimulating effect in that direction. Nutrient solutions Mr. Otis found to be as a rule injurious to root growth in cuttings.

* * *

Facts About Sugar gives a translation of the report on manure experiments in connection with the sugar cane recently carried out in Cuba by Dr. Mario Catrino, in which remarkable results were obtained from gypsum mixed with waste matter and ashes, due, it is considered, to the reaction of gypsum on the insoluble silicates of the soil, whereby potash is liberated, as well as to the stimulation by it of micro-organisms in the presence of the "waste matter" and ashes. An increase of nearly 50 per cent. was obtained over the yield of the unmanured plots by the waste matter and ashes alone, and this was increased to 175 per cent. when 1,793 kilograms of gypsum were added per acre.

* * *

It is impossible to read the reports of the various Agricultural Departments dealing with the sugar cane without being struck by the losses which now occur in cane fields from the prevalence of insect and fungoid pests, and a following thought is that the lines on which the scientists connected with the departments work in controlling and eradicating the pests are not those best calculated to bring about a more satisfactory condition of cane cultivation. The comparative freedom of cane fields from damage from insect and other pests in the more early days of the industry suggests that the main objectives of modern scientific work in connection with the sugar cane should be in the direction of improving the sanitary condition of the soil and the conditions of cultivation of the cane rather than of methods of dealing with the pests and the attainment of a high sugar content.

THE WEST INDIES REVISITED.

By ALGERNON ASPINALL.

(Continued from page 126.)

The Sack of Old Panama.

In the afternoon the Prince landed from the *Renown* and drove through the crowded streets to the handsome Government Buildings, which, with the Teatro Nacional, appear to have been built regardless of expense with the proceeds of the sale of the Canal Zone. Here he received many addresses, including one from the large British West Indian community, which was beside itself with delight at having the honour of welcoming the heir to the Throne. He also inspected the local veterans of the British West Indies Regiment, who paraded in full strength at the suggestion of Mr. Percy Bennett, C.M.G., His Britannic Majesty's Minister, and to many of them the Prince had a kind and appreciative word to say.

The streets were lined by firemen, so prodigal in numbers that one concluded that the old city must be subject to conflagrations of great ferocity. These men were attired in very picturesque uniforms consisting of shirts of the brilliant red hue favoured by stage cow-boys, gaiters, and ancient leather helmets such as you only see nowadays preserved as curiosities in the offices of fire insurance companies. This function over, our Admiral chartered a ramshackle motor-car, and we set out to visit the ruins of old Panama, after driving repeatedly round and round the Plaza de la Cate-

dral while we endeavoured to make our destination known to the chauffeur—and when once you enter that square there is no turning back; you must drive to the left and go right round or out the other side.

The high road being outside the sphere of American control was abominably bad and bumpy. For eight miles or more we churned up its dust, and then, turning down towards the sea, beheld rising out of the bush and scrub the identical tower on which Captain Henry Morgan and his band of

pirates gazed with such exultation on the 27th day of August in the year 1670.*

After capturing the Isle of St. Catharine, with the connivance of the Spanish Governor, and reducing the garrison of the castle of Chagres, Morgan had set out with two thousand and two hundred men across the Isthmus to carry out his design of sacking Panama, the wealthy entrepôt of the trade of the Pacific. A year before, when the Governor of that city had asked him for a pattern of the arms with which he had taken Porto Bello, Morgan had sent back a pistol and bullets, saying that he would come and fetch them in twelve months' time. This pledge was now to be redeemed. For eight days the pirates tramped through bush and swamp, suffering such terrible privations that they were compelled to make a

"huge banquet" of leather bags thrown away by some terrified Spaniards, in order to "afford something to the ferment of their stomachs, which now was grown so sharp that it did gnaw their very bowels, having nothing else to prey upon."† It is not to be wondered at that when on the ninth day they sighted this stepple they "began to show signs of extreme joy, casting up their hats into the air, leaping for mirth, and shouting, even just as if they had already obtained the victory and entire accomplishment of their designs. All their trumpets were sounded and every drum beaten, in token of this universal acclamation and huge alacrity of their minds."

That evening fifty Spanish horsemen came out of the city to within a musket shot of Morgan's force, "preceded by a trumpet that sounded marvellously well." Threatening the pirates, the Spaniards

shouted out: "*Perrros nos veremos!*" ("Ye dogs, we shall meet ye!"). Then the city began to fire and "ceased not to play with their biggest guns all night long against the camp, but with little or no harm to the pirates, whom they could not conveniently reach."

On the following day the Governor of Panama



Captain Henry Morgan.

This portrait of the "pirate" who afterwards became Governor of Jamaica is reproduced from an engraving published in Esquemeling's "*Bucaneers of America*" in 1683-5.

* An admirable account of the career of Morgan is given by Mr. Frank Cundall in *The West India Committee Circular*, Vol. XXXV., pp. 378 and 398, and Vol. XXXVI., pp. 31, 53 and 68.

† This and the extracts which follow are taken from *Esquemeling's "Bucaneers of America," 1684-5.*

extended in battle array his forces, which comprised "two squadrons, four regiments of foot, and a huge number of wild bulls, which were driven by a great number of Indians, with some negroes and others, to help them." Fortunately for the pirates, the wild bulls were too scared by the tumult to do much harm, and at the end of a sharp engagement most of the Spanish horsemen were killed, while the survivors fled precipitately back to the city. In this action the Spaniards lost no fewer than six hundred dead, besides many wounded and prisoners. The pirates, too, suffered heavily; but after a brief rest they marched "courageously towards the city, plighting their oaths to one another in general they would fight till never a man was left alive." On nearing the walls of the city they were met by "full and frequent broadsides" from "many great guns, at several quarters thereof, some of which were charged with small pieces of iron, and others with musket-bullets," but after a combat lasting for three hours they overwhelmed the Spaniards and captured the city, which they found "well-stocked with all sorts of merchandize, as well silks and cloths as linen, and other things of considerable value," although the inhabitants had been busily transporting their more treasured possessions to "more remote and occult places." Morgan, having placed guards at various points, then "caused certain men privately to set fire to several great edifices of the city, nobody knowing whence the fire proceeded nor who were the authors thereof." The conflagration spread throughout the city, and though the pirates co-operated with the Spanish in endeavouring to check it by blowing up houses with gunpowder and pulling down others, all proved in vain, and the fire lasted for four weeks, at the end of which period the pirates, after recovering all they could from the ruins, decamped with "one hundred and seventy-five beasts of carriage, laden with silver, gold and other precious things, besides six hundred prisoners, more or less, between men, women, children and slaves." Old Panama must have been a city of great splendour. Many of its houses, which numbered two thousand, were built of cedar, and were "of very curious and magnificent structure . . . richly adorned within, especially hangings and paintings." It boasted, too, no fewer than eight monasteries besides two stately churches with many paintings and ornaments of gold and silver.

For more than two centuries after Morgan's visit and the calamitous fire, the ruins remained almost forgotten in the dense bush which soon hid them from view, and it was only when Europeans began to flock to the new city of Panama that they

began once more to attract notice and were cleared from undergrowth for the inspection of visitors and historians. Now no trace of former magnificence survives, unless it be in the solid masonry of the historic church steeple, the broken arch of the bridge that crossed the sluggish river which



The ruined Steeple in Old Panama.

This illustration, reproduced from "The Souvenir of Panama" (F. L. Maduro, Panama), depicts the identical steeple on which Morgan and his band of pirates gazed with such exaltation on September 4th, 1670, after suffering terrible privations during their march across the Isthmus to attack Panama.

meanders through the town, and the remains of the old walls.

Possibly an archæologist may some day be able to locate the "darksome and stinking cellar" into which Morgan cast the virtuous lady, immortalised by Exquemeling, who repulsed the pirate's amorous advances, although he lavished on her "much pearl, gold and all that he had got that was precious, and valuable in that voyage." He

may succeed also in identifying the ruins of the stately and magnificent house of the Genoese merchants, or the spot where the faithful menial, who, refusing to disclose the whereabouts of his master's cabinet, of which he had the silver key, was put on the rack, and then had a cord twisted about his forehead, and "wring so hard, that his eyes appeared as big as eggs, and were ready to fall out of his skull," after which "his nose and ears were cut off and his face stung with burning straw"—a truly refined form of torture.

Meanwhile we could only muse upon the events of that lurid month in 1670, while scrambling over the ruins and watching the egrets stalking about the sand on the sea shore by the massive foundations of the old city wall.

The next excitement was a brilliant ball at the Union Club, a palatial building, with balconies overhanging the moonlit Bay of Panama. To the music of an excellent band, many strange measures were trodden, such dances as the tango, pascua, and dansillo figuring on the programme, though in most cases those not conversant with these steps managed to "get away" with the one-step or fox-trot. The supper tables were exquisitely decorated with a profusion of pink roses, and for the economy of time, or perhaps in accordance with local custom, plates were laid all over them, each with a pleasing, if startling, variety of comestibles upon it, while cooling "punch" (non-alcoholic) was ladled from a large barrel, over which an energetic American officer of high rank presided with a ladle, while we approached him as suppliants with our mugs, as visitors do at the health-giving springs of Spa or Homburg. For those whose need was greater, there was a bar (alcoholic) downstairs, whilst in the hall a row of uniformed policemen remained impassive and seated throughout the night to preserve order, if that were necessary, thus adding a touch of Central-American-Republican colour to the entertainment. Again the Prince danced nearly every dance, and again there was a reception, and it was not until the small hours of Holy Thursday, when many should have been thinking about going to Mass, that the proceedings were brought to a close.

Then came the parting of the ways. Just after daybreak the *Benozon* left her moorings, and before the mists of early morning were dispersed she could be seen from my new cabin on the foremast and just under the bridge (to which my belongings had been transferred), moving out into the Pacific, on her way to San Diego, her next port of call. Later in the morning the *Calcutta* also put about, and resumed her voyage; but there was just time before we sailed for another ramble through the quaint old streets of Panama (where one noted that a brisk trade was being done with the sale of lottery tickets), and for a visit to the Editor of "The Workman," a patriotic newspaper conducted by a British West Indian, and devoted mainly to the interests of his long-suffering countrymen in the Canal Zone. From him one learnt something of their troubles. Following a strike, many of them had been turned out of their resi-

dences, and unemployment was rife. The men and their families had come down to construct the Panama Canal, and many could date their arrival from the beginning of the work by the United States Government. Now that the Canal was completed, there was no longer any need for so great a labour force, and the problem of what to do with it was already becoming a serious one. More recently the troubles of these emigrants have become aggravated through the dearth of employment in the islands from which they came. In many cases these British West Indians have been domiciled in the Canal Zone for years, and few of their children know any other home than the Isthmus on which they were born. Consequently, the demand has become persistent for the settlement of the West Indians on the land as farmers. This would have the advantage of drawing the unemployed out of the congested cities of Panama and Colon; but what would be preferable, from the Imperial standpoint, would be for the Government of some sparsely populated West Indian island, or of British Guiana or British Honduras, to make such arrangements in respect of land settlement as would bring these patriotic British citizens once more under the shelter of the Union Jack.

Our return journey was not marked by any untoward incident, and the *Calcutta* was manœuvred through the locks as easily as a steam launch at Boulter's on the Thames. The passage of a cruiser through the Canal has now become such a commonplace occurrence that it no longer attracts spectators, and the comparative solitude of our surroundings, only broken when we would pass a tramp steamer or a liner with passengers, cooks, and stewards leaning over the rail, made the size of the locks the more impressive.

The first British vessel to use the Canal was the "Daldoreh," a Scottish steamer which had started on her voyage round the Horn from Tacoma to Limerick, with a cargo of 11,500 tons of wheat in August, 1914, just after the outbreak of war. The Captain, receiving a wireless message from her owners, diverted her through the Canal, thus saving forty precious days on the voyage, and also, in all probability, his ship and cargo, since Von Spee was on the high seas at that time. For the first few years after the Canal was thrown open for traffic, Great Britain headed the list of nationalities using it, no fewer than 41 to 45 per cent. of the ships which passed through in the years 1915 to 1917 being British. Then with the rapid development of the American Mercantile Marine, the United States took the lead, which they still maintain, though 33 per cent. of all the vessels which used the Canal last year were British. The war at first proved detrimental to traffic, but afterwards it had a stimulating effect, and many thousands of Australian troops, besides quantities of munitions of war, were carried through the waterway. But not a single German ship entered the Canal during the war, and it is a matter for satisfaction that the Imperial German flag never has been, and never will be, seen in it.

(To be continued.)

THE NAME "GUIANA."

BY REV. JAMES WILLIAMS.

(Continued from page 127.)

De Laet, in 1633, says that the Caribs inhabited the banks of the Essequibo beyond the falls and almost to its sources. In modern times Coudreau mentions at the sources of the Essequibo the streams "Yaore" and "Tchipe Ouâ," although he also says:—"Voici ce fameux rio Sipo qui fait tant rêver les bonnes gens de Boa Vista." Probably he learnt the name "Sipo" from the Boa Vista people, but obtained the name "Tchipe Ouâ" from the Aborigines themselves. Captain Whiffen names on his map this part of the Essequibo thus:—"Chip Wa (Essequibo R.)" On the Rupunoni River, north of Eupukari, on the way to Karakara, flows a delightful little stream, whose waters are refreshingly cool both as a beverage and as a bath, and it bears the name of "Chip^a-w^at^a." Aublet tells us that "Chipa" was the Carib name for the "Icica (decandra)," a burseraceous tree, which Littré, in his dictionary, spells "Chibou." I venture to suggest that "Sipu," the name of the Upper Essequibo, represents not the Arawak "siba," a stone, but the Carib "Chipa" (or "Chip^a"), the resinous tree.

In "Timehri," of June, 1887 (p. 78), Mr. Rodway had suggested Peter Martyr's Haytian word "guanin," which also occurs in the quotation given above as:—"a possible derivation of the word Guiana."

The earliest mention of the name "Guayana" appears to occur in connection with the year 1532, and with an officer of the name of Johan Gonzalez de Sosa. In that year (1532) Diego de Ordaz, the first European whose travels up the Orinoco have been recorded, amishly desiring the death of this Gonzalez, sent him alone into the interior to explore the country. As Gonzalez returned safely he was sent again, and this time with twenty companions. Caulin, writing in 1759, says that this party soon discovered the Province of Guayána, where the Guayanos received them as friends, and some of these Indians accompanied them when, after twenty days, they returned back to the Governor Ordaz, and both he and his soldiers were cheered by their success. Herrera, in 1601, states distinctly that "Guayána" is the name in the language of the Indians. This passage of Herrera is given in an English translation by Mr. Rodway as an extract from "an undated manuscript in the 'Archivos de Indias,' probably written about 1580." Tavera-Acosta narrates an incident, without, however, giving his authority for it, to the effect that when the natives first saw Juan González and his twenty companions a little below the mouth of the Caroni River, they exclaimed "Uayano," "Uayano," a word which, he says, is Carib for "pale," "strange," "hurtful." In 1535 Alonso de Herrera, the next after Ordaz to travel up the Orinoco, was attacked by an Arawak chief, who had obtained for the purpose the assistance of 2,000 "Guayanos," or "Indios de la Provincia de Guayana." Mr.

Rodway has brought to light and given in English a passage from a Spanish MS., dated circa 1544, in which the following words occur:—"The River Orinoco is large, and it is said has its source in the territories of Quayena, and from information received from the Aruacas, the Province of Quayena is good territory and populated with native Indians who are very good people."

Thus from 1582-1535 we find mentioned a land called "Guayana" (accented sometimes on the last syllable, sometimes on the penultimate), and a people called "Guayanos," and the conclusion has been drawn that these people gave their name to the country. Humboldt accepts this conclusion, and says:—"The Guayanoes, who early in the sixteenth century gave their name to the whole of that vast province, are less intelligent, but milder, and more easy, if not to civilize, at least to subjugate, than the Caribbees. Their language appears to belong to the great branch of the Caribbee and Tamanae tongues." Humboldt mentions also another tribe of the same name dwelling in the thick forests of the River Parana, in the south of the continent.

Aristides Rojas refers to the Mariches, Indians who lived in the neighbourhood of Caracas, as having a territory called "Guayana," and, in his opinion, the Guayanos, as well as the Caribs, etc., sprang from the Guarani nation.

Codazzi says that "Guayana" was so-called from the natives who dwell between the Caroni and the Sierra Imataka. Col. G. E. Church found the same theory in Michelena y Rojas, and in the Encyclopaedia Britannica supports it with the weight of his great authority. And we have Dr. J. Hampden Porter saying:—"There are . . . Guayanos, after whom 'the Large, Rich, and Bewtiful Empire of Guiana'—so called by Sir Walter Raleigh—was named . . ."

Pedro Simon writes sometimes of "the Indians of the Province of Guayána," sometimes of the "Indians Guayanas," and sometimes of the "Guayanos." Carvajal, in 1648, says that the "yndios guayanos" are most friendly with the Spaniards, are valiant men, good Christians, and loyal to the King, and he thinks the reason for finding more of these qualities in these people than in the rest of the Carib Indians must be because they live near the city of Guayana, while the others live high up the river.

Codazzi says that the "Guayanos" used to live between Angostura (i.e., the present Ciudad Bolívar), the Yuruari, and the Sierra Imataka, the district occupied by the Caroni Missions of the Catalan Capuchins. After saying that they had given Guayana its name, he adds that in his day they, with the Caribs, Guaiacas, Aruacas, Barinagotos, and Arinagotos, formed the actual population of the Canton Upsta.

(To be concluded.)

NOTE.—The "e" turned upside down is the phonetic symbol for the vowel sound in French "je."

Full references to the authorities named in the above paper were given, but lack of space has prevented their insertion.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Canadian Manufacturers in Bahamas.

The party of Canadian manufacturers who are making a tour of the West Indies arrived at Nassau on February 21st, and were welcomed by Mr. R. H. Curry, Commercial Agent for Canada, and Hon. G. H. Gamblin, local manager for the Royal Bank of Canada, whilst Mrs. Lofthouse, M.B.E., President of the National Chapter of the Daughters of the Empire, met the ladies of the Party. In the evening the members watched an amateur performance of "Mrs. Temple's Telegram" in St. Andrew's Hall, under the stage management of Mr. R. B. Shepherd, assisted by Hon. Faith Dawnay, who is the guest of the Governor and Lady Cordeaux. After a conference on the following day with the Chamber of Commerce, the members of the delegation embarked on the *Canadian Fisher* for Jamaica. The Very Rev. P. J. Hayes, D.D., Archbishop of New York, in whose ecclesiastical jurisdiction the Bahamas is included, has arrived in the Colony on an official visit.

Frequent Showers in Barbados.

After the dry weather at the end of January, there were frequent welcome showers during February. The young crop, says the *Advocate*, is springing up well everywhere, but little supplying being needed. In the case of the few factories that had started reaping by the middle of February, the results were very poor, the juice being weak and giving trouble in manufacture.—The colony of Poles, for whom there was no more coppersmith work to do, have taken their departure for Cuba. They formed a peaceful and picturesque community, and excellent workmen, "but their charges," says the *Advocate*, "did not suit a place like Barbados."—On February 15th, in the presence of a record attendance, the impressive ceremony of presenting the King's Colours to the Twelfth Battalion of the British West Indies Regiment was performed by His Excellency Sir Charles O'Brien, who was accompanied by his A.D.C., Lieut. C. S. B. Swinley, R.N. The Volunteers, under Hon. Sir Frederick Clarke, K.C.M.G.; the Police under Captain J. R. Anderson; ex-members of the B.W.I., under Captain Reed, the Cadet Corps under Captain Allan Collymore; and the Boy Scouts under Scoutmaster Barrow, all turned out in force, the combined parade being commanded by Colonel Harrell. The dedication of the colours was carried out by the Bishop. After a stirring address from the Governor, a tablet was erected in the Volunteer Drill Hall in honour of fallen members of the force.—The House of Assembly has rejected the recommendation to appoint an income-tax expert, as also the suggestion that the Governor's income should be exempt from tax—£3,600 has been paid for Chancery Lane Plantation of 300 acres (of which 140 are arable) in the parish of Christ Church.

Some Help for British Guiana Sugar.

At a meeting of the Combined Court on February 17th, on the motion of Hon. J. Hampden King (Acting Colonial Secretary) a resolution authorising assistance to the Sugar Industry was carried. Loans up to a maximum of ten dollars per ton of sugar manufactured are guaranteed to estates approved by the Governor, interest to be at one per cent. over

Bank rate, but not to exceed seven per cent. The time given for repayment of advances to the bank or other approved lender is three years. If the estate proprietor has not repaid in this period, the Government becomes liable to do so, and the estates proprietor is allowed a further seven years in which to repay the Government. Seconding the motion, Hon. R. E. Brassington said that quite 70 per cent. of the estates would avail themselves of the aid proposed. To his mind, the visit of the Indian delegates was fraught with greater importance to the sugar industry even than that of Mr. Wood, as apart altogether from the price of sugar, the acreage under cane had been steadily decreasing. Asked to what extent the Colony would be pledged, the Governor replied that if 100,000 tons were produced, the amount would be about £240,000 within the next 18 months, adding that he would be very glad to see 150,000 tons produced, in which case the Colony would be faced with a sum of £300,000. Being secured as they would be, there could be no eventual loss to the Colony.—The Georgetown Chamber of Commerce have been informed by the Government that, in view of the small area of land under cotton cultivation, it is not proposed to set up a Government gin. In order to encourage the industry, however, the Laboratory Compound of the Department of Agriculture is to be planted with Sea Island Buck cotton hybrids, so that sufficient seed may be available for farmers requiring it. Mr. C. C. Toppin has been appointed Hon. Secretary of the Chamber in succession to Mr. T. E. Guy, who has gone to England.—Under the direction of Professor W. Beebe, the fifth expedition despatched by the Department of Tropical Research of the New York Zoological Society, has arrived in the Colony for further scientific work at the Kartabo Station. The personnel includes two artists.—Canon A. M. B. Jemmott has been the recipient of numerous marks of esteem on his departure from the Colony, where he has spent 30 years of his priesthood.—Correspondence has recently passed between the Governor and the British Ambassador to Brazil regarding the possibility of connecting the Brazilian railways with the British Guiana system. It appears that there is a concession in existence for a railway from the Port of Manaos to Boa Vista on the River Branco, but there is little likelihood of its construction in the near future, although a road is at present being made between these two points.—In connection with the diamond boom, the *Argosy* estimates that there are 2,500 men engaged in this industry in the Mazaruni.—The obituary list includes the name of Mr. J. J. Rodrigues, a highly-respected merchant of Water Street.

Harbour Improvements at Belize.

His Excellency the Governor, accompanied by the Acting Chief Justice and Mrs. Francis, has paid a visit to Stann Creek in H.M.S. *Mutine*. The campaign against mosquitoes is to be extended to Corozal and Walk in the North, employees of the Yellow Fever Executive Commission being lent for this purpose, according to the *Clarion*.

Hon. A. R. Usher, writing on February 23rd, states that the question of the reduction of the Export duty on Chile came up recently in the Legislative Council, but it was decided to allow it to remain at 3 cents per lb. for the present. The Government have entered into a contract with the Jefferson Construction Co., of New Orleans, to dredge and deepen the Bar of the Belize River, making a revetment and erecting a warehouse on Fort George. This when completed

will be a great improvement, as it will allow vessels drawing about nine feet of water to come across the bar, where there is hardly three feet of water at present.—The Governor is now preparing his budget and considerable interest is being taken in the question of adjustment of salaries which will be considered shortly.

Jamaica and the East Asiatic Co.

His Excellency Sir Leslie Probyn has appointed His Honour R. T. Orpen chairman, and Lieut-Colonel J. E. Green, D.S.O., and Mr. R. H. Isaacs members of a Commission of Enquiry into the circumstances of the collision between police and soldiers on February 17th, 18th and 19th, as reported in last CIRCULAR. The arrival, on February 23rd, of the Danish oil-burning ship *Virginia* (1,000 tons) belonging to the East Asiatic Company, whose local agents are Messrs. Fred Myers and Son, inaugurated a new monthly service between St. Thomas, Santo Domingo, Hayti and Jamaica.—A serious fire broke out at May Pen in the morning of March 5th, destroying the store of Messrs. Hefes Acar and Badil, where the outbreak originated, together with three adjoining shops and a dwelling house.

Leewards' Governor in St. Kitts.

The St. Kitts (Basseterre) Sugar Factory commenced crop on February 13th, wrote Mr. E. J. Shefford on March 3rd, and work was proceeding smoothly, labourers having accepted the lower rates of wages, which were inevitable owing to the depressed condition of the sugar industry. The Factory Company hope to handle about 10,000 tons of canes from estates in the neighbourhood of Sandy Point by means of water transport to Basseterre, and they are utilising the Government wharf at Sandy Point together with another which the Government has built at Godwin Shant, about two miles further down the coast, for the purpose. The weather was dry when Mr. Shefford wrote, with persistent high winds, which are ripening up the canes, so that it is necessary to reap the crops as speedily as possible.—H.E. the Governor and Lady Piennes arrived in the Island on 5th February, residing at Government House, His Honour the Administrator and Mrs. Burdon having removed to Old Government House. Their Excellencies have been moving about amongst all classes of the community and have created a most favourable impression. A reception at Government House on February 21st and a ball next evening were most successful and much enjoyed. February 28th was declared a public holiday to celebrate the marriage of Princess Mary, when the Governor was present at aquatic sports and distributed the prizes.—The new session of the Legislative Council was opened at the Court House on March 1st, when the draft Estimates were introduced and passed without amendment. The revenue has been estimated at £82,520, and the expenditure at £82,174, leaving rather a precarious credit balance of £346.—To meet the decreased revenue, due principally to the falling off of the Export Duty returns, slight increases have been made in taxation, and a Finance Ordinance was passed at this sitting. While the various schedule rates on incomes are low, the bill showed signs of hurried drafting, but unofficial criticism was silenced by the assurance of the Governor that in order to consider amendments the Bill would be introduced into Committee again before the commencement of another financial year. The attention of the Govern-

ment was drawn by Unofficials to the unduly high cost of the Presidency's Federal contribution, amounting to £7,437 for the ensuing year.

Tobago Cacao Prospects.

Mr. Robert S. Reid, writing on February 28th, records frequent showers, the vegetation growing almost as in the rainy season. The cacao trees persist in throwing out fresh flushes of leaves, which practically wipe out the young fruit, leaving few pods to reach maturity for the crop ending June 30th. A fairly good picking is expected for March-April, but the prospects thereafter are still very doubtful. However, with the rise in prices, planters are more cheerful.—Mrs. Bruce Archibald has left for London.—Rev. F. R. Hammond is again resident in Tobago.—The death is reported of Mrs. Benjamin Lees, of the Whim, at an advanced age.

The Chacachacare Leper Settlement.

Mr. Alick G. Hamlyn, writing on February 25th, states that the opening of the 1922 Session of the Legislative Council on February 17th was preceded by the consecration, in the grounds of the Government Buildings, of the King's Colours of the 8th Battalion of the British West Indies Regiment. After the ceremony had been performed by Dean Holt, Anglican Chaplain, and Father La Marre, R.C. Chaplain, the Colours were installed in the Legislative Council Chamber, in the presence of the assembled Council and of a number of prominent citizens. His Excellency Sir Samuel H. Wilson, in the speech in which he opened the session, after alluding to the unfavourable financial position occasioned by the world-wide trade depression which necessitated strict economy, stated that while the actual revenue for 1921 fell short of the estimate by some £25,500, a saving in expenditure of £33,500 was effected, making the surplus balance £8,000 more than the estimate. A start had been made with water-supply schemes for certain of the country districts, and a separate prison for juvenile offenders was being erected, but it was necessary to postpone some important public works and suspend work on others which had already been begun. Provision is to be made for continuing to develop the road system, and the Government will continue to expedite the proving of oil-bearing lands in order that land not required by the Oil Companies may be released for agricultural purposes. The chief legislation foreshadowed was a bill to consolidate the law relating to marriages and a permanent Income Tax Ordinance.

Mr. George Kemsley, who has been appointed to the vacancy in the Legislative Council, created by the resignation of Mr. Fuller, took his seat for the first time. The Governor, in Executive Council has made rules for the regulation of the new Leper Settlement at Chacachacare, and Mr. F. J. McLeon, a retired Public Official, has been appointed Resident Superintendent from March 1st, by which time about 100 lepers will have been settled there. The Anglican Synod, at which the Bishop of Trinidad delivered his annual charge, was held at All Saints Parish Room on Wednesday, February 22nd.

The total sugar production of the British West Indies, including British Guiana, for 1921-22 is estimated by Messrs. Willett and Gray at 285,500 tons.

WEST INDIAN COMPANIES.**Trinidad Spices Oil Company.**

The Trinidad Spices Oil Company has been registered with a nominal capital of £80,000 in £1 shares, to acquire petroleum or oil-bearing lands in Trinidad, or elsewhere. The first directors are Mr. J. A. Bryces, of 85, Bryanston Square, chairman of the Spices Petroleum Company, Mr. G. Gunnell-Milne, Mr. H. G. Trew, and Mr. A. Green.

The Bank of Nova Scotia.

An outstanding feature of the 90th annual report of this bank, which is the second oldest Canadian Chartered Bank, and one of the largest institutions in the Dominion, is an addition of \$1,000,000 to reserve, making a total of \$19,000,000, as compared with \$9,500,000 of capital. The net profits of \$2,111,738 were less than for the previous year, but substantially above those for 1919. Dividends were paid at the rate of 16 per cent., and a substantial sum written off, in addition to allowance for pension and taxation. The strong position of the bank is apparent in that out of total assets of \$225,406,398, there is as large a sum as \$181,795,972 in immediately available resources, against total liabilities to the public of \$195,739,396, the ratio being 67.83 per cent.—an unusually high percentage for a bank to report. It has a widespread chain of branches throughout Canada and Newfoundland; offices at New York, Chicago and Boston; also in Porto Rico and the Dominican Republic, and at Havana, Cuba; and as well has eleven branches in Jamaica—the Kingston office having been established over thirty years ago.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

Medicinal Value of Lime Oil.

SIR,—For as much as I know that you are deeply interested in West Indian affairs generally, I take the liberty of mentioning the following in the interests of both my fellow lime-growers and the readers of your valuable CIRCULAR.

Lately, in the course of conversation with an old W.I. planter, he declared to me that the medicinal properties of hand-pressed lime oil, used both internally (in minute doses) and externally were very numerous and effective indeed, and in support of his assertion he enumerated quite a number of cases for which this oil is practically a cure.

Naturally, it has been impossible for me to ascertain how far he is right, but I can assure all those interested that when applied externally and rubbed gently into the skin this oil is a wonderful relief for asthma, influenza, bronchitis, rheumatism, neuralgia, gout and all such complaints, also for various skin troubles, as both myself and members of my family have used it with complete success and satisfaction, and also friends to whom I recommended it have reported satisfactory results.

Trusting you will mention this in the CIRCULAR,

Yours faithfully,

ANTONY GLOUMRAU.

DEATH.

REV.—At Landsome, Anguilla, on March 22nd, 1922, Susan, aged 78, widow of the late Wager Rey, Esq., of St. Martin's. Amongst the large family who mourn her loss are Mrs. G. B. Mason and Carter Rey, Esq., of Anguilla and St. Martin's.

WEST INDIES AT WESTMINSTER.**Sugar for Brewing.**

Mr. Hilton Young informed Mrs. Wintringham, on March 23rd, that the quantity of sugar (including its equivalent of syrups, glucose and saccharin) used in the United Kingdom for the brewing of beer during the year ending September 30, 1921, was 1,873,525 cwt. and that no sugar, but 278,578 cwt. of molasses, was used for distilling during the same period.

The Imperial Institute.

Mr. Churchill informed Sir Harry Brittain, on March 16th, that the contributions to the Imperial Institute in respect of the current year were approximately as follows:—

Imperial Government (direct)	£	10,000
Dominions and India		9,650
Colonies, Protectorates, Egypt and Sudan		21,150

Making a total of £40,800. In 1920-21 the indirect contributions of the Imperial Government had been £15,007.

The Distillers Protest.

Mr. Hilton Young stated on March 22nd, in answer to Mr. Hannon, that the Chancellor of the Exchequer had received a petition from the Highland distillers submitting that the Spirit Duty of 72s. 6d. per proof gallon had threatened the Scotch trade with complete disaster, and also other representations as to the effects of the present Spirit Duty. As regards the question of a reduction, however, he was unable to anticipate the Budget statement.

[Amongst the "other representations" must be included one from The West India Committee, acting on behalf of the rum producers of the West Indies.]

On March 23rd Mr. Hannon again drew attention to memoranda which had been sent to the Chancellor of the Exchequer by the Whisky Association, the Distillers' Company, and the United Distillery, Ltd., pointing out that the Spirits Duty, which was now 72s. 6d., had been in 1913 14s. 9d. per proof gallon, and was now, therefore, 18 times the average selling price of new whisky, a rate of taxation borne by no other article subject to Excise duty, and asking for a reduction in the duty to 50s. per proof gallon.

Lime Juice for the Navy.

Mr. Ormsby-Gore asked, on March 14th, the Parliamentary Secretary to the Admiralty whether the contract formerly existing between Messrs. Rose and Company and the Admiralty for the supply of British West Indian lime juice for the Navy was now terminated; whether this contract had been replaced by a contract for a similar supply of Italian lemon juice from Sicily; if so, for how many years this contract was to run; and whether the interests of British Colonial lime producers would be borne in mind before any further contract was entered into?—Mr. Amery replied: No long period contracts are made for British West Indian lime juice or Italian lemon juice. The former is still purchased in quantities as required, and a considerable contract was, in fact, placed with Messrs. Rose and Company in January last. No lemon juice has been purchased since January, 1920, when a certain amount was obtained from Messrs. Rose for the purposes of an investigation into its anti-scorbutic properties. The answer to the last part of the question is in the affirmative.

WEST INDIAN PASSENGER LIST.

Thos. & Jas. Harrison.

Home arrivals from West Indies, in s.s. *Ingoma*, London, March 15th:—

Mr. W. Ault	Mr. & Mrs. R. Hodgson	Sir Charles & Lady Major
Mr. H. Andrade	Miss A. Horne	Hon. Hugh McLelland
Mr. & Mrs. Armon	Miss A. Hodge	Miss D. Murry
The Misses Ainsworth	Miss A. Humby	Miss A. Major
Mr. A. Archibald	Miss M. Henderson	Dr. R. Natanson
Mr. & Misses Atkins (2)	Mr. H. Holmes	Mr. T. & Miss Prentice
Mr. H. Bulman	Mrs. D. Harries	Mr. & Mrs. E. Percival
Mr. W. Bulman	Mrs. B. Johnson	Major T. Phillips
Hon. A. G. Bell,	Mrs. D. Jenkinson & child	Dr. F. Kooke
C.M.G., & Mrs. Bell	Mr. H. Livingstone	Mr. T. Roy
Mr. F. Conyers	Mr. & Mrs. J. Laine	Mrs. C. Reid
Commander & Mrs. P. Fairfield	Mr. W. Jesse	Mr. J. Stanton
Mr. J. Falconer	Mrs. L. LaHite	Dr. I. Sharples
F.R.G.S.	Mr. Stephen McKenna	Mr. K. Stewart
Captain Curtis Gallup	Mr. Stair McHarris	Miss B. Stoby
Mr. & Mrs. R. Granston & fam.	Mr. A. Massey	Mr. H. Thorne
Capt. H. Giles	Dr. & Mrs. E. P. Minett & child	Mr. & Mrs. A. Thomas & fam.
Miss F. Gordon		Mr. A. Wilson

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Changrinola*, March 21st:—

Mr. J. H. F. A. Chandler	Mr. & Mrs. J. A. Hall	Mr. C. G. Hansford
Rev. F. R. Cocks	Mr. & Mrs. A. H. Hooper	Mr. J. C. Knollys
Miss E. A. Cocks	Mr. R. A. Hooper	Mr. & Mrs. R. Laurence
	Mr. J. Hooper	Miss M. L. Wright

Sailings to Jamaica, from Avonmouth, in s.s. *Comrado*, March 27th:—

Mr. & Mrs. R. C. de Mercado	Mrs. Savile E. Hudson	Mr. A. Sinclair
Rev. S. C. Gordon	Captain R. F. Mitchell	Mr. G. M. Slater
Sir George Hayson	Rev. & Mrs. T. B. Prentice	Mr. Harold Williamson
		Mr. Herbert Williamson

Home arrivals from Jamaica, in R.M.S. *Coronado*, Avonmouth, March 19th:—

Lord & Lady Athlumney	Miss O. Harrison	Miss A. Round
Mrs. Anderson	Miss G. Keeling	Miss L. C. Ryan
Capt. W. H. Burt	Mrs. & Miss Lindo	Rev. G. Reynier
Mr. & Mrs. P. Habin	Mr. G. S. Lysaght	Mr. T. A. Robinson
Mr. E. J. Brooks, jr.	Major H. McDonald	Mr. & Mrs. C. Strachan
Mr. E. J. Brooks, jr.	The Misses McDonald (2)	Miss O. Silveira
Mr. Frank Carr	Mr. W. C. Mason	Mr. & Mrs. F. Sims-Williams
Mr. G. D. Cobbett	Mr. W. R. Murray	Mr. A. Seminario
Dr. Thomas Gann	Miss M. Miles	Mr. S. W. Spikes
Mr. Gen. Gesson	Mr. J. P. McElwee	Mr. & Mrs. A. Urbano & fam.
Mr. A. H. Gibson	Rev. F. Martelli	Mr. T. Verduguez
Rev. & Mrs. Gifford & fam.	Rev. G. Mileri	Mrs. D. M. Whitelock
Mr. & Mrs. D. M. Glasbrook	Mr. R. Norton	Mr. & Mrs. Wolryche Whitmore
Mr. Victor Haywood	Sir Fred & Lady Painter	
	Mr. & the Hon. Mrs. F. J. Press	

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in s.s. *Oranje Nassau*, March 25th:—

Mr. A. Aberdeen	Mr. Fairbrother	Mr. & Mrs. Pedrique
Dr. & Mrs. Aitken	Mr. A. Gee	The Misses Pedrique (2)
Miss Bolla	Mr. & Mrs. Humphrys	Mr. F. Planchat
Captain R. Mrs. E. G. M. Buckley	Miss A. Jones	Mr. C. Prasad
Mr. G. D. Case	Mr. J. Lovell	Major M. Robertson
Mr. G. Davies	Mr. D. Lovell	Mr. A. V. Speight
Vicount Dundorf	Mr. M. Mitchell	Mr. H. Weber
Colonel & Mrs. Evans	Mr. A. D. Naylor	Mr. E. B. Williams
	The Misses Packer (2)	Miss Winter
	Mr. R. K. J. Paul	

Home Arrivals from West Indies, in s.s. *Venezuela*, Plymouth, March 25th:—

Mr. J. Blackburn	Miss M. H. Jones	Miss A. J. Rice
Mr. & Mrs. Percy Brunt	Mr. & Mrs. P. McDonald	Mr. F. Robertson
Mr. P. J. Bunt	Mr. W. Moore	Mr. D. Hope Ross
Mr. D. G. Bunt	Mr. & Mrs. A. Morgan	Mr. F. Russell
Mr. L. M. J. Brennan	Mr. P. Parsons	Mr. W. J. C. Scrutton
Mr. R. J. Bursell	Mr. J. R. Prentice	Mr. & Mrs. G. Moody Stuart
Mr. H. Dossan	Mr. P. O'Reilly	
Mr. J. B. Farmer, F.R.S.	Mrs. & Miss Pereira	Miss M. S. Toko
Mr. Forrester	Mr. H. C. Prevatt	Mr. J. Winter
Mr. E. J. Frostick	Mr. C. L. Reed	Miss J. M. Witter
Mr. & Miss Hayward	Mr. & Mr. P. H. Ribeiro	Miss Della Wylarde

STEAMER SAILINGS.

To	From	Packet	Sailing
Jamaica	... Bristol	... <i>Patuca</i>	... Apr. 4
West Indies	... London	... <i>Ingoma</i>	... ..
B'nos & T'dad	... Liverpool	... <i>Antillian</i>	... .. 8
Jamaica	... Bristol	... <i>Camito</i>	... .. 10
Jamaica	... Liverpool	... <i>Greenbrier</i>	... .. 11
Jamaica	... Liverpool	... <i>Median</i>	... .. 13
Trinidad	... Bordeaux	... <i>Perou</i>	... Apr. 6
G'da, T'dad & Demerara	... New York	... <i>Mayaval</i>	... .. 25
West Indies	... Halifax	... <i>Chaleur</i>	... .. 25
B'nos, J'aca & B. H'das	... Montreal	... <i>Canadian Fisher</i>	May 10

VISITORS FROM OVERSEAS.

Visitors from the West Indies are invited to register their addresses at the West India Committee Rooms, 15, Seething Lane, London, E.C. By doing so they will facilitate the forwarding of their correspondence. Among those at present registered are:—

Mr. P. H. Alcock	Sir J. B. Harrison, C.M.G.
Mrs. S. Archer	Mr. E. C. Hosack
Dr. R. Wellesley Dalley	Mr. W. P. Humphrey
Mr. L. Lambert Bell	Mr. W. K. A. J. C. Hunter
Hon. A. G. Bell, C.M.G.	Mr. T. W. Innes
Brigadier-General J. A. Bell	Mr. Frank H. Johnson
Synthe, C.B., C.M.G.	Mr. J. P. Kirkness
Mr. B. Bouyan	Mr. H. N. Leacock
Mr. A. E. Brail	Mr. Duval MacPhail
Mr. James Brown	Mr. D. Luckie Matthew
Mr. Gerald O. Case	Mr. Hugh McLelland
Mr. J. W. Calbert	Hon. Mr. Justice W. P. Mitchell
Hon. Cecil Clement, C.M.G.	
Dr. J. H. Cooke, B.A., M.B.	Mr. R. Nicol
Mr. H. S. Cox	Mr. J. H. Rapley
Dr. O. H. de Freitas	Lieut. W. M. Richards
Mr. Thomas Dunlop	Mr. J. A. Robotham, P.S.A.T.
Mr. W. P. Ebbels	Mr. D. Hope Ross
Mr. C. G. S. Elvey	Mr. L. A. Ryan
Mr. P. J. Evans	Mr. C. B. Snydes
Mr. A. W. Farquharson	Mr. Ivan J. Scott
Hon. H. Ferguson	Mrs. H. H. Sealy
Mr. J. J. France	Mr. R. Strachan
Mr. W. H. Freiz	Dr. The Hon. H. A. Tempson
Mr. C. C. George	Mr. A. C. Thomas
Mr. N. P. Gladwin	Mr. R. M. Walcott
Mr. Gordon Graham	Hon. R. A. B. Warner, K.C.
Mr. T. E. Guy	Mr. C. A. Yearwood
Mr. V. C. Hanschell	
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.	
Mr. A. M. Reid, South Okeay, Cirencester, Glos.	
Mr. H. Blin Staley, Crediton, Devon.	

WEST INDIAN SECURITIES.

Div.		Latest prices
4 1/2 %	Antigua	40-82
4 1/2 %	Barbados	75-78
3 1/2 %	British Guiana	84-85
4 1/2 %	British Guiana	52-54
4 1/2 %	Grenada	77-79
4 1/2 %	Jamaica	85-88
4 1/2 %	Jamaica	75-78
3 1/2 %	Jamaica	61-63
3 1/2 %	Jamaica	76-80
4 1/2 %	St. Lucia	82-84
4 1/2 %	Trinidad	88-91
3 1/2 %	Trinidad	88-91
10 %	The Colonial Bank	8-8 1/2
4 %	Royal Mail Steam Packet Co. Ordinary	54-5 1/2
6 %	Angostura Bitters Part. Preference	102-108
6 %	New Trinidad Lake Asphalt Co. 5% Debentures	11-
7 %	Consolidated Rubber and Balata Estates Pref.	47-
	St. Madeleine Sugar	33-34
	Apex (Trinidad) Oilfields, Ltd.	1104
	Petroleum Options, Ltd., 10-	55-
10 %	Trinidad Central Oilfields	113
	Trinidad Dominion Oil, Ltd., 10-	20 1/2
	Trinidad Leaseholds, Ltd. (21)	12-
	United British Oilfields of Trinidad, Ltd.	5 1/2
	General Petroleum of Trinidad	
	Direct West India Cable Co.	41
	W. I. and Panama Tel. Co. Ltd. Ordinary	16-17
	W. I. and Panama Tel. Co. Ltd. 6% Cum. Int. Pref.	12-13
	W. I. and Panama Tel. Co. Ltd. 2nd	69-74
7 %	W. I. and Panama Tel. Co. Ltd. 5% Debentures	

PRODUCE MARKETS SUMMARY.

Telephone—
Central 8642.
Telegrams—
"Carib. London."



15, BEECHING LANE,
LONDON, E.C. 3.
March 28th, 1922.

BANK RATE. 4½ per cent. as from February 16th.

EXCHANGE. Value of the £ Sterling.

	Mar. 14th		to Spain ...	Mar. 14th		to Germany ...	Mar. 28th	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.			
In U.S.A. ...	1 18 2	17 11 1	1 2 0	1 2 4	1 2 0	1 2 4	1 2 0	1 2 4
.. France	1 18 10	1 18 6	1 2 0	1 2 4	1 2 0	1 2 4	1 2 0	1 2 4
.. Belgium	2 1 8	2 1 3	1 2 0	1 2 4	1 2 0	1 2 4	1 2 0	1 2 4
.. Italy	3 9 8	3 12 0	1 2 0	1 2 4	1 2 0	1 2 4	1 2 0	1 2 4

The value of the gold sovereign is £1 2s. 5d.

SUGAR. The New York market showed great strength during the earlier part of the fortnight, sales of Cuban 96 deg. having been effected on March 21st at 4.11c. duty paid, equivalent to 2.30c. f.o.b. A reaction then set in, prices declining until the spot value on the 25th was 3.80c., equal to 2.08 f.o.b., with sales for the first and latter part of April at 3.92c. and 3.98c. respectively. There was no change in the spot market yesterday, but Cubans for April delivery were bought at 4.04c. Future market quotations were: May 2.55, July 2.72, September 2.88.

In the home market the fortnight commenced with strong demand, and on the 20th refiners advanced their price 1/- per cwt., causing a corresponding rise in other kinds. In sympathy, however, with New York, the market became quieter and demand slackened, refiners in the latter part of the week reducing their prices by 6d. a cwt. Quotations yesterday were: London granulated, 48/6; American granulated, spot, 47/9; Continental granulated, 20/7½ to 21/1¼ f.o.b.; West Indian crystallised, 42/3 to 44/6; yellow imitations, 43/-; white Mauritius, spot, 44/9 to 45/-. The price of Cuban 96 deg. was 18/4½ c.i.f., equal to about 12/8 f.o.b.

In the terminal market values were: 96 deg., May and July and September, 14/3; white, May and July, 19/6, September, 19/1¼.

Willott and Gray report that the Java exports from April 1st to February 28th have amounted to 1,480,000 tons, as against 1,812,582 tons, and 1,328,334 tons for the corresponding periods of 1921 and 1920 respectively. The different direction of the Java 1921-22 exports is shown by the exports to the U.S.A. ports, and Europe only being 140,000 as against 730,575 tons in the 1920-1921 period. The present countries to which large exports of this crop have been made are Hong Kong, Japan, and India, the latter country up to December 31st having taken no less than 598,266 tons. The February exports were entirely to eastern countries.

Himely, under date March 11th, states that the free movement of both old and new crop sugars in Cuba since the first of the year, together with the improvement in price, is having a good general effect throughout the island, and the crop is not now to be interfered with by any restriction of production or of exports.

The West Indian sugar statistics in London on March 18th were:—

	1922.	1921.	1920.
Imports	3,543	6,291	11,190 Tons
Deliveries	6,671	10,978	7,526 "
Stock	3,507	3,717	11,800 "

RUM. There has been some enquiry for two to three-year-old Jamaicans of good quality, resulting in business, but prices have not been reported. The little interest shown by buyers in new rum has been confined to the arrival market.

The stocks in London on March 18th were:—

	1922.	1921.	1920.
Jamaica ...	11,006	9,018	6,883 Puns.
Demerara ...	19,303	15,168	11,928 "
Total of all kinds	39,805	35,182	26,985 "

CACAO generally is quiet. A fair business has been done in fine Grenada at 80/- to 61/-. Fine Trinidad is in small supply, and has sold at 74/- to 75/-, or to arrive, 62/- c. & f. Fine Jamaica is quoted nominally at 58/-, or fancy, 62/-.

The stocks in London on March 18th were:—

	1922.	1921.	1920.
Trinidad ...	5,410	22,484	20,219 Bags.
Grenada ...	14,807	21,360	16,349 "
Total of all kinds	100,631	190,951	159,385 "

ARROWROOT. A moderate business is passing. Prices are unchanged at 3½d. to 7½d., according to quality.

BALATA. The market, in the absence of demand, is nominal, with West Indian sheet quoted at 3/3 to 3/4 spot.

BAY OIL is unchanged, remaining inactive with buyers expecting lower prices. The nominal quotation is 10/- to 11/-.

COFFEE generally is steady, with a good demand for home-made qualities, but export is slow, as prices—due to adverse exchange rates—are too high for Continental operators. On the fortnight there has been more demand for Jamaica, and low-middling in barrels has sold at 85/- to 100/6. Good to fine ordinary is quoted at 65/- to 70/-, and small sales of this quality have recently been made at 69/-.

COPRA is dull. West Indian f.m.s. is valued at £25 10s. c.i.f. U.K., or £26 c.i.f. Holland or Germany.

COTTON. Since our last report, West Indian Sea Island has been in fair request, and prices are unchanged at: medium 28d., fine 31d., and extra fine 40d.

HONEY. The market is very dull. Dark to good dull setting is valued at 32/6 to 45/-.

LIME PRODUCTS. Lime Oil. Handpressed is easier with bids invited. Distilled is steady at 2/3 to 2/8 for good. **Lime Juice.** There is no change in Concentrated. Sales of old Jamaica raw have been made at 1/10 to 2/- per gallon, and really good new juice would sell well.

LOGWOOD. Limited trading has been done at steady prices. Spot is valued at about £9 per ton.

ORANGE OIL Sweet is dearer, with sales on the spot up to 10/-, but Bitter is unchanged.

RUBBER is steady but quiet at 8½d. spot for crepe and sheet.

SPICES. The market for **Pimento** both on the spot and to arrive, has been quite lifeless since the date of last Summary. Nearly all the **Ginger** arriving is sold, and the last quotations are unchanged. At the last auctions West Indian **Nutmegs** met with a fairly good demand, but a large proportion was wormy, and in consequence prices were rather irregular. **Mace** at auction met with good demand and was rather dearer.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—

Demerara (Messrs. Booker Bros., McConnell & Co., Ltd.), March 21th:—"Weather too dry." Jamaica (The Direct West India Cable Co., Ltd.), week ended March 16th:—"Port Antonio, fair; Kingston, fine."

The West India Committee Circular

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No. 614

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The West India Committee Rooms.

Telephone:
CENTRAL 8642.
Telegrams:
CARIB, LONDON.



15, SERRING LANE,
LONDON, E.C. 3.
April 12th, 1922

DUTY FREE "HOME-GROWN" SUGAR.

OUR friends associated with the movement for the production of sugar from beetroot in the United Kingdom are to be congratulated upon the success which has attended their efforts to secure the remission of the excise duty on home-produced sugar. In the House of Commons, on March 30th, SIR ARTHUR BOSCAWEN, M.P., Minister of Agriculture, announced that the Government had decided that in view of the exceptional circumstances of the new industry of sugar-beet, and the condition of unemployment in this country, no excise duty would be charged on home-grown sugar, and that the necessary provision for the removal of the existing duty would be made in the Finance Bill of this Session. He added that it was, of course, impossible to bind any future Government—a statement which evoked cheers from the Labour benches—but that, in view of the fact that the remission of excise was intended to assist a new industry during the experimental period, it might be hoped that Parliament would not reimpose any excise duty until the industry had been firmly established. This statement was received with cheers, and there is no reason to doubt that the proposals of the Government to remit the excise duty on sugar will be accepted by the House of Commons. From the summary which we publish elsewhere it will be seen that

the history of sugar-production in the United Kingdom has not hitherto been encouraging. Indeed, the failure of successive experiments which have been carried out intermittently from 1881 onwards have conclusively proved that a sugar-industry cannot be established in England without protection. It now remains to be seen whether the action of the Government, in supporting the industry by fiscal protection, as, in the case of the Kelham enterprise, it has already done by financial assistance and dividend guarantees, will result in sugar being included in the staple industries of the United Kingdom. As the sugar duties now stand, the fiscal protection afforded to home-grown beet will amount to £25 13s. 4d. per ton, or 2½d. per lb. against foreign sugar, and £21 7s. 9d. per ton, or 2½d. per lb. against colonial sugar. The present capacity of the existing sugar factories in England is understood to be in the neighbourhood of 15,000 tons of sugar per annum. This is such a small amount as to be negligible, as compared with a normal consumption of 1,800,000 tons in the United Kingdom; but protected to such an extent there is no saying how far the movement may not develop, and colonial producers would be hardly human if they did not consider that they, too, should also receive more favourable tariff treatment. They see the sugar of Porto Rico, Hawaii and the Philippines entering the United States free of duty, and they naturally consider that their mother country should do for them what the United States is doing for the tropical territories under her flag.

THE CENSUS OF 1921 AND EMIGRATION.

IN the present issue we are able to publish, for the first time, the complete totals of the Census returns for the British West Indian Islands, British Guiana, and British Honduras, which were taken last year, The West India Committee having obtained from the Colonies by cable the figures hitherto lacking. It is shown that, taking the West Indian Islands as a whole, the population in April, 1921, was 1,734,972, as compared with 1,688,494 and 1,577,542 at the two last censuses taken in 1911 and 1901 respectively. Adding to these the figures for British Guiana and British Honduras, the grand totals for what might be termed "the Greater British West Indies" become 2,077,980 for 1921, 2,024,998 for 1911, and 1,910,917 for 1901. It must be admitted that this result is disappointing, the increase being far below what it should be in normally healthy and prosperous communities. Particularly disconcerting is the return for British Guiana, indicating as it does that, in spite of immigration, the population is practically stationary, a circumstance which points

to the complete failure of immigration schemes up till now. On this subject, it will be recalled that Mr. CECIL CLEMENTI, C.M.G., the Colonial Secretary of the Colony, had something to say in his valuable "Report on the Condition of the Colony of British Guiana during the Great War," which was presented to the Combined Court in 1919. In that document he laid stress on the fact that, despite artificial additions by immigration, the increase in the population during the five preceding years had been at the rate of only 4 per thousand, and he attributed this failure of immigration to its having been neither initiated nor yet pursued in the interests of colonisation. "The planters needed adult male labourers, and were therefore indifferent to the low percentage of females introduced." Moreover, "the labour required by the sugar estates fluctuated," and the planters did not trouble to maintain "the steady annual demand which might have served to accustom the minds of the labouring classes in India and South China to the idea of emigrating to British Guiana."

The decline in the population of Barbados is less surprising, inasmuch as emigration from that overpopulated island has been deliberately encouraged owing to the absence of available land for the settlement of the people. Hitherto, emigration from Barbados has proved an advantage, inasmuch as the Barbadians who seek fresh fields and pastures new have been in the habit of sending back to their relations in "Little England" very substantial sums of money; but it is a question now whether this wholesale emigration has not gone far enough, since it is now being found that it is the better class of agricultural labourer and industrial worker that is emigrating rather than the casual. This circumstance is, no doubt, attributable to the sugar boom, which resulted in thousands of labourers emigrating from the British West Indies to Cuba. Many of these men have now drifted home again, and it is possible that if a fresh census were to be taken, the result would already be more favourable than that of 1921. Nevertheless, it must be remembered that emigration from the British West Indies still continues, and only recently we have learnt from Grand Turk that the Bull Line of steamers, in addition to the Clyde and Columbus Lines (which latter have been allowed to use the port—if an open roadstead can be called that—free of dues of any kind) have been calling at Turks Islands to collect labourers for Santo Domingo. It is certainly an extraordinary state of affairs that we should have complacently to witness this exodus of labourers from under the British Flag, whilst only quite recently several British West Indian colonies were positively crying out for labour, and it is to be hoped that this is one of the many problems which will receive the attention of Mr. EDWARD WOOD, M.P., whose report is so eagerly awaited. Another matter which should also be closely watched is the proposal to draft West Indian labourers to the Gold Coast for work on a new harbour at Takoradi. SIR FREDERICK GUGGISBERG hinted recently that it was to Barbados that he was looking for labour to construct this harbour, and it has already been

suggested that 2,000 Barbadians should be recruited for the purpose in the first instance. It would, indeed, be an irony of fate if British West Indians were to be drafted to West Africa in order to obviate a drain on the agricultural community which would be free to produce increasing quantities of cacao to compete with that of Trinidad and Grenada! Surely the 2,000 labourers, and more, could be more profitably employed, from the West Indian standpoint, in the British West Indies, even if Barbados wished to be rid of them, and we commend to the consideration of the powers that be an extension of the system of peasant proprietors on the undeveloped lands of our mainland colonies of Central and South America, and those of the West Indian islands wherever possible.

THE ENDOWMENT FUND.

A further list of donations to The West India Committee's Endowment Fund is published below. It may be recalled that one of the objects of the fund is to enable the Committee to secure more convenient premises. Owing, however, to the great increase in rents in the City of London, it has not yet been possible to achieve this aim. In this connection readers are reminded that The West India Committee is the only colonial body of the kind that has not increased its rate of subscription, which remains at the pre-war figure of one guinea, or five dollars, per annum. Consequently, it is hoped that every member will contribute voluntarily to the Endowment Fund and will use his best endeavour to interest his friends in the movement.

THIRTY-SEVENTH LIST OF CONTRIBUTIONS.

Amount previously acknowledged	£28,674	11	10
H. Seedorff, Esq.	5	5	0
Andrew Barclay, Sons & Co., Ltd.	2	2	0
The Grenada Chamber of Commerce	2	2	0
T. C. Hepburn, Esq.	2	2	0
Edward W. Turner & Son	2	2	0
F. H. Alcock, Esq.	1	1	0
Dr. Q. B. de Freitas, M.R.C.S.	1	1	0
W. K. A. J. Chambers Hunter, Esq.	1	1	0
E. H. Mathew-Latnowe, Esq. (2nd gift)	1	1	0
Miss Lillian M. Penson, B.A., Ph.D.	1	1	0
N. D. Simpson, Esq.	1	1	0
James Stewart, Esq.	1	1	0
P. Stanley Woods, Esq.	1	1	0
V. Grey-Wilson, Esq.	19	0	
Thos. Fisher, Esq.	10	6	
W. F. Gouda, Esq.	10	6	
Julius Vigour, Esq.	10	6	
Lionel Ryan, Esq.	10	0	
Rev. James Williams	10	0	
D. H. Seale, Esq.	8	0	
Greville Hulise, Esq.	4	0	

Contributions to The West India Committee's Endowment Fund, which will be acknowledged in these columns, may be sent direct to the Secretary to The West India Committee, 15, Seething Lane, London, E.C., or paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

NOTES OF INTEREST.

"SATISFIED tell hungry man keep heart."

MR. G. R. STEVENS, the Canadian Trade Commissioner in Jamaica, has agreed to act as Honorary Trade Correspondent to the Department of Overseas Trade for that colony.

MR. A. M. LATTER, who, it will be recalled, recently advised The West India Committee regarding the Trinidad Income Tax Ordinance, has been appointed one of His Majesty's Counsel.

THE Colonial Bank has lost a valued servant in the person of Mr. N. F. H. Smellie, chief clerk of the credit department, who was run over by a motor-lorry at Ealing on March 22nd, and killed.

THE *South African Sugar Journal* states that the 1921 South African crop was 151,500 long tons; 12,000 tons were also imported from Portuguese East Africa. The exports of sugar for the year were 32,000 tons.

MR. A. J. DAWE, having been promoted to be a Principal in the Colonial Office, Mr. E. B. Boyd has been appointed to succeed him as Private Secretary to Mr. Edward Wood, M.P., Parliamentary Under-Secretary of State for the Colonies.

AT the 112th Festival Dinner of the City of London Truss Society in London on March 29th, Mr. R. Rutherford, Chairman of the Committee of that very deserving charity, proposed the toast of the Lord Mayor (who presided) and the Sheriffs.

MESSRS. LAMBORNE AND CO., the well-known sugar brokers of New York, state that while only a few Cuban concerns can make money with sugar at 2½c. cost and freight New York, fair profits would be shown by the majority at 2½c. to 2¾c.

SIR JOHN AND LADY HARRISON will receive many messages of condolence on the loss which they have just sustained through the death of their only son, Dr. John Harrison, which occurred at Malacca, in the Straits Settlements, on March 21st.

FOR some years past there has been a growing tendency for dates, almonds, etc., to be coated with chocolate for sale in confectioners' shops. Stuffed olives, pickled gherkins, and cubes of cheese similarly treated are, according to our contemporary *West Africa*, now on offer.

WE regret to state that Mrs. Howell Jones, widow of the late Mr. Benjamin Howell Jones, C.M.G., of British Guiana, died at Aspley Heath, Woburn Sands, on March 27th. Mrs. Howell Jones spent many years of her life in British Guiana, where she was identified with much charitable work.

MR. E. HYSLOP BELL, joint general manager of the Colonial Bank, left in the s.s. *Ingoma* on April 5th on a tour of inspection of the West Indian

branches of that institution. Mr. Hyslop Bell hopes to visit all the islands in which the bank has branches, and to call in at New York and Montreal on his way home.

THE King has granted to Mr. Henry Arthur Ballou, Entomologist to the Imperial Department of Agriculture for the West Indies, Royal licence and authority to wear the Insignia of the Third Class of the Order of the Nile, which decoration has been conferred in recognition of valuable services rendered by him while lent to the Egyptian Government.

MESSRS. PAINES AND REID, produce brokers, of 32, Fenchurch Street, have admitted into partnership Mr. W. C. Radermacher, who has had many years' experience as a broker on the drug market. They have also secured the services of Mr. C. Howe, who has long been associated with him, and is especially experienced in the handling of West Indian produce.

SIR JOHN CHANCELLOR is to preside at an afternoon meeting at the Royal Colonial Institute on April 25th, at 4 p.m., when Dr. H. A. Tempany will read a paper on "Mauritius of To-day," with lantern slides, and on May 23rd, at the same hour, Mr. Cecil Clementi, C.M.G., Colonial Secretary of British Guiana, will deliver an address on "Colonisation in British Guiana."

THE quantity of beets required to produce 1,700,000 tons of sugar would take the place of about 85 per cent. of the mangolds and turnips now grown in the United Kingdom. The imports of dairy products such as condensed milk, butter, cheese, bacon, hams, and pork were valued in 1921 at £128,542,570, or, including beef, £168,611,240. The value of the sugar imported in the same year was £35,283,937.

AN ingenious Dutchman is circularising English tobaccoists regarding his firm, "which already more than ten years manufactures with great success imitations of Havana cigars, 'Cigarros Jamaica.'" A genuine Jamaica cigar can stand on its own merits, and it would be well for the Board of Trade to make it known to our friend that there is in existence in this country a Merchandise Marks Act, which may have some bearing on this case.

THE *Montreal Gazette*, or Mr. Alfred Lambert, or both, is or are rather mixed on the subject of sugar. In its issue of March 23rd the *Gazette*, quoting Mr. Lambert, says that sugar planters in Jamaica in particular and the British West Indies in general are dissatisfied with the present commercial relations with Canada, principally on the alleged grounds "that the Dutch standard, which is required for quality, is inferior to their product, and that it undersells the finer Jamaica sugar on the Canadian market."

AN interesting sidelight is thrown on the wealth of Jamaica and the Beckford family by the following extract from "The Farington Diary" of 1797,

now in course of publication in the *Morning Post* :—

October 4.—Beckford [author of *Vathek*] usually rises about 6—breakfast at 10 which lasts $\frac{1}{2}$ an Hour—dines at $\frac{1}{2}$ past 3—in an hour of so has coffee and then quits Company to ride &c Such as choose it remaining at the table. His income, this year, is £155,000—He had just recd. information of 7 of his Ships being arrived uninsured, by which He saves £12,000. He pays £75,000 duties this yr. to government. The King is well inclined to Beckford but Pitt and Lord Loughborough are his determined enemies.

* * *

SIR STEPHEN HERBERT GATTY, K.C., who died at Christchurch on March 29th, spent the first nine years of his official life in the West Indies. Born in 1849, he was appointed Attorney-General of the Leeward Islands in 1888, thereafter successively filling the posts of Chancellor of the Diocese of Antigua, Acting Chief Justice of Antigua, Lord Commissioner of the Encumbered Estates Court for St. Kitts, Attorney-General of Trinidad, and of Chairman of the Royal Commission on the Franchise of Trinidad, and on the Metayer System in Tobago. He was appointed a judge of the Straits Settlements in 1892, and was knighted in 1904.

* * *

SEVERAL readers have called the attention of the CIRCULAR to the following advertisement which appeared in the Agony Column of *The Times* of March 18th :—

CANE SUGAR.—Advertiser is anxious to secure evidence in support of his view that the greatest good to the greatest number will result from the maintenance and encouragement of the overseas cane sugar industry rather than from the present efforts to promote the growing of beet sugar in this country.—Will those interested kindly write to Box Z-745, *The Times*, E.C.4?

It is to be hoped that this anonymous advertiser will make known to the sugar-growing world the results of his inquiry.

* * *

MISS HOWARD, the daughter of the Agent-General for Nova Scotia in London, has consented to preside over the Canadian and West India stall at a garden fête to be opened by the Duchess of Albany, at Cam House, Kensington, on June 21st, in aid of the Poor Clergy Relief Corporation. This society, which aims at assisting the poorer clergy throughout the Empire, in response to an application from Jamaica, in 1920, sent there a travelling font and Communion set. Miss Howard, who since her visit to the West Indies last year, has taken the greatest interest in this part of the Empire, will be glad of offers of help and gifts for the stall, to be sent to her at 57, Pall Mall, S.W.

* * *

AFROPOS of the leading article in the CIRCULAR of March 16th, on the subject of the American sugar combine, a correspondent informs us that the prospects of that organisation finding a market for its sugar on the Continent of Europe are remote. "The Belgian sugar manufacturers and agriculturists are going to appeal to the Government gradually to increase the import duty to

protect their market. There is no other European country which can take large quantities of sugar, that is to say, which will do so a few years hence; so the United Kingdom will become the dumping-ground once more. Meanwhile, the Java producers are very anxious about the situation, Cuba having sent quite a lot of sugar to the Far East."

* * *

THE Bill to settle the rates of income-tax for 1922 which was introduced in the House of Assembly in Barbados, on February 21st, provides for the following scale of duties on assessable incomes :—

	s.	d.
Not exceeding £200	2	on every pound
Exceeding £200, but not exceeding £250	3	" "
" 250 " " 350	4	" "
" 350 " " 500	5	" "
" 500 " " 750	6	" "
" 750 " " 1,000	7	" "
" 1,000 " " 1,500	8	" "
" 1,500 " " 2,500	9	" "
" 2,500 " " 4,000	10	" "
" 4,000 " " 5,000	1	0
" 5,000 " " 7,500	1	3
" 7,500 " " 10,000	1	6
Over £10,000	2	0

* * *

MR. C. P. CUMBERBATCH, who died in the Colonial Hospital, at Port-of-Spain, from pneumonia, on February 15th, will be regretted by all West Indian sportsmen. Cumberbatch was a good all-round cricketer, who found a place as a bowler in the West Indian cricket eleven which toured England under the captaincy of Mr. H. B. Gardiner Austin in 1906. He played in 17 matches, and was placed tenth in the batting averages, with 18.89, and fifth in bowling with 27.48. Following a choral service at All Saints Church, conducted by the Rev. C. Stokely Doorly, B.A., Chairman of the Bonanza Cup Cricket Committee, this well-known West Indian cricketer was laid to rest at the Lapeyrouse Cemetery in the presence of representatives of all the local West Indian cricket clubs.

* * *

THE following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :

- "The Manufacture of Cane Sugar," by Jones and Seard; 26/-.
- "The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/-.
- "Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchey Hart; 8/-.
- "The Cane Sugar Factory," by F. I. Seard; 3/-.
- "The Pocket Guide to the West Indies"; 7/6.
- "West Indian Tales of Old," by Algernon Aspinall; 8/-.
- "The British West Indies," by Algernon Aspinall; 9/6.
- "Historic Jamaica," by Frank C. Cundall; 8/-.
- "A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6. These prices include postage.

STEWED GUAVAS.—Cut the fruit in half, scoop out all the seeds, and boil the skins with their weight (or a little less) of sugar, continuing to do so until the skins are tender and the syrup thick. A little spice boiled with the fruit greatly improves the flavour.

BET SUGAR IN ENGLAND.

The question of the manufacture of beet-sugar was taken up in the United Kingdom as far back as 1831. In that year a small company was formed for the purpose of growing and manufacturing beet-sugar on the Continental lines that then obtained, at Ulting, in Essex. A plant was erected, but the scheme was not a success. In 1870 a factory was erected at Lavenham, in Suffolk, for the manufacture, from sugar beets, of syrup, which was conveyed to the London refineries for conversion into sugar. This factory worked for nine years, after which the project was abandoned. In 1872 a sugar-beet growing venture was started at Buscot, in Oxfordshire, 1,000 acres being put under that cultivation, with the view of the manufacture of alcohol, but proved a commercial failure.

Towards the end of last century the subject of sugar production from beets was again taken up, and experimental growings took place throughout the kingdom. These demonstrated the fact that sugar-beet, equal in saccharine strength and extent of yield per acre to those produced on the Continent could be grown, and in 1911 the matter was crystallised by the erection of a factory at Cantley, in Norfolk, by the Anglo-Netherland Corporation, which owned sugar factories in Holland. Up to the year 1915, as an act of grace, sugar from Cantley was allowed the whole of the protection afforded by the then customs' duty of £1 10s. 8d. per ton, no excise duty having been levied. In that year, however, the import duty was raised to £9 6s. 8d. per ton, and the Government definitely afforded protection to the sugar produced in the United Kingdom by fixing the excise duty at £2 6s. 8d. per ton below the customs duty on imported sugar, for sugar of over 98 per cent. polarisation.

In 1915 the Board of Agriculture instructed Mr. C. S. Orwin, of the Oxford Institute for Research in Agricultural Economics, and Mr. J. C. Orr, to inquire into the financial results to the farmers of the Cantley factory. Although the Norfolk farmers had made a small profit per acre, the Suffolk farmers had suffered loss. The report was, on the whole, a sanguine one as to the future of the industry. Later on in the year, the same gentlemen reported on the subject of a beet-sugar industry, so far as Gloucestershire, Somersetshire, Devonshire and Cornwall were concerned. As regards the first three counties the reporters did not see any chance of a beet-sugar industry being established, as economic conditions did not warrant their cultivation in the place of existing crops. In Cornwall, where the economic conditions were different, factories worked on the co-operative system might, they thought, be established.

In 1916 the Cantley factory was compelled to close down owing to the impossibility of obtaining seed for planting; but manufacture was resumed in 1920-21, and the 1921-22 crop has recently closed at 4,000 tons.

In 1917 the Kelham Estate, in Nottinghamshire, was purchased for the sum of £125,000 on behalf of the British Beet Sugar Growers' Association, for

the purpose of forming the nucleus of a beet-sugar production concern, and for making experimental trials of the suitability of the land for the cultivation of sugar-beet. The latter having proved successful, a company was subsequently formed, under the title of Home Grown Sugar, Ltd., with a capital of £500,000, the Government supporting the scheme by agreeing to take shares equally with the public until the whole capital was subscribed, and to guarantee a dividend of 5 per cent. on the capital subscribed by the public. The erection of the factory, which was sized to deal with 60,000 tons of beet, equal to about 8,000 tons of sugar, in the season, was commenced early in 1921, the machinery being supplied almost entirely from France, and contracts made with farmers in the neighbourhood for a supply of beets for the 1921-22 crop. As the erection of the factory progressed the capital was found to be insufficient for the purpose, and a further sum of £200,000 was raised, of which the Government contributed £125,000, secured by first mortgage on the property. The factory was formally opened on October 21st, 1921, and operations proceeded on the small scale purposely arranged for during the subsequent months, 2,000 tons of sugar being made. As the result of the working, it was found necessary, in spite of the fact that the sugar already received the benefit of preferential treatment to the extent of £6 4s. 5d. as regards foreign, and £1 18s. 10d. per ton as regards colonial sugar, to apply to the Government for further support, which it has now been officially stated will be given, in the approaching Budget, by the total abolition of the excise tax, equivalent to a protection of 2½d. per lb. as against foreign, and over 2½d. per lb. as against colonial sugar.

THE WEST INDIA CENSUS.

The West India Committee, having obtained by cable the figures of those West Indian Census Returns which have not yet been available in this country, is able to publish below the following table showing the total population of the various West Indian Islands, British Guiana, and British Honduras, and of the British West Indies as a whole for the years shown:—

	Area in Sq. Miles.	1881	1891	1901	1911	1921
Barbados	166	171,860	182,867	195,588	171,583	156,312
Bahamas	4,403	43,521	47,565	53,735	55,044	53,831
Jamaica	4,207	380,874	639,491	785,730	831,363	857,921
Turks and Caicos	169	4,741	4,744	5,287	5,615	5,612
Cayman Islands	89	4,070	4,322	5,000	5,364	5,253
Trinidad	1,754	153,128	230,028	255,138	312,833	359,402
Tobago	114	48,041	18,353	18,731	20,749	23,378
Grenada	181	13,403	15,209	63,438	66,750	79,198
Curacao	13	—	—	—	—	7,104
St. Lucia	333	36,531	42,220	49,883	48,637	51,505
St. Vincent	133	40,548	41,054	47,348	38,372	49,959
Grenadines	17	—	—	—	3,895	4,115
Antigua	108	34,364	36,819	34,951	31,394	28,864
Barbuda	62	—	—	—	871	903
Dominica	315	28,211	26,841	28,894	33,863	37,059
St. Kitts	65	29,137	30,876	29,782	26,263	22,415
Nevis	50	11,864	13,087	12,774	12,945	11,569
Montserrat	324	16,083	11,762	12,215	12,195	12,120
Anguilla	35	3,249	3,699	3,690	4,075	4,230
Virgin Islands	88	5,287	4,639	4,908	5,562	5,042
Total West Indies	12,134	1,220,372	1,361,576	1,577,542	1,698,494	1,734,972
British Guiana	90,300	252,486	278,328	298,896	296,041	297,691
British Honduras	8,898	27,452	31,471	37,479	40,458	45,347
		1,110,328	1,300,010	1,671,325	2,021,993	2,077,981

* Official Estimates.

THE SUGARS OF COMMERCE.

The principal commercial sugars of the world are :

1. Cane sugar, the principal constituent of which in its pure form is known scientifically as sucrose, obtained from the sugar cane and some varieties of palms.

2. Beet sugar, with its basis chemically and physically the same as that of cane sugar, obtained from the sugar beet.

3. Glucose, obtained by the hydrolysis of starches.

4. Invert sugar, obtained in a similar manner from cane sugars.

The first two of these constitute what is popularly known as sugar. They may be divided into three classes : those which go to the refiners to be refined by a process additional to that by which they were manufactured, and which are made and purchased with that object; the refined sugars resulting from them; and those sugars which are manufactured from the cane or beet juice for direct consumption, and which do not require the refining process to render them suitable for that purpose.

The descriptions of the first class which dominate the refining markets are, in the case of cane sugar, 96 deg. crystals, and in that of beet, 88 per cent. beet. The crystals are bought and sold on a basis of a polarisation of 96 deg., i.e., a content of 96 per cent. of sucrose, as determined by the polariscope, additions to or subtractions from the contract price being made according to the extent of polarisation above or below 96 deg. The sale price of the beet product is based on the figure of 88 per cent. resulting from the deduction of five times the percentage of ash obtained by the ignition of the sugar and once the percentage of uncrystallised sugar or glucose from the direct polarisation, which is generally about 94 deg. As with the 96 deg. crystals, the sale price is subject to allowances or deductions for percentages above or below what is known as the *rendement* or yield of 88 per cent. Cuban sugar is a type of the 96 deg. class and Continental raw beet of the 88 per cent. class.

In the case of cane sugar, in some instances, as in Java and Hawaii, a sugar is made of a higher polarisation than 96 deg., namely, up to 98 deg., for special markets.

In addition to the above, there are also small and lessening quantities of low-grade cane sugars of the muscovado type, produced by the old, simple process of open evaporation of the juice and gravity drainage of the molasses, or mother liquor,

from the sugar. These are muscovado proper; jaggery, or sugar obtained from the date and palmyra palms; *raab*, the East India form; "mat" sugars, produced in the Philippines. Concrete sugar, or the juice concentrated until it sets hard on cooling, as instanced by the *gur* of India, also rank among sugars which are refined. Muscovados proper are usually bought on a basis of 88 per cent. polarisation.

Second products, from 96 per cent. sugars, known in the country of origin as molasses sugar, but to the refiner as syrup sugar, are also included under the heading of refining sugars. The usual basis of sale is 86 per cent. polarisation. There is a corresponding sugar made in the case of beet, of which the basis of sale is 75 per cent. *rendement*.

The sugars which result from the refining of the above are principally loaf, cube, granulated, crystals, caster, icing, amorphous, and pieces. These are all made with the use of animal charcoal, or "char," as it is termed technically.

Loaf sugar derives its name from the loaves into which at one time all refined sugar was made. A loaf consists of a crystalline mass of sugar which has taken the form, so familiar to the past generation, of the mould into which the hot crystallised magma is cast for completion of crystallisation, drainage of mother liquor, cooling and washing with syrup. The loaf thus made is cut up into lumps, from which lump sugar derives its name. This process, however, is rarely followed at the present day, and the place of loaf sugar is taken by cube sugar. This is made either by casting the

sugar, boiled as for loaf sugar, into moulds which give a rectangular cake, which is freed from uncrystallised syrup and washed by centrifugal action. The dried cakes are then cut up by machinery into cubes. Another process is to mix granulated sugar with a small quantity of syrup, and to compress the mixture into cubes of the desired proportions, which are subsequently dried by hot air.

Granulated sugar is sugar prepared with a very fine crystal or grain, which is freed from its mother liquor by centrifugal action, the crystals being subsequently dried by hot air. Crystal sugar is made in a similar manner, but the production of a larger crystal than in the case of granulated is aimed at. In caster sugar the grain is still smaller than in granulated. "Icing" sugar is the debris of lump and cake sugar ground to a powder. Yellow crystals are white crystals

*Some interesting specimens of the old shears by which the leaves of sugar were chopped up may be seen at the West Indian Produce Association's premises at 14, Creechbush Lane, London, E.C.—Ed.



Mr. Samuel H. Davies.

A Governor of the West Indian Agricultural College.

which have been coloured with an aniline dye mixture to imitate Demerara sugar. Amorphous sugar is a finely powdered sugar prepared by an especial process in which the sugar is not allowed to crystallise. Pieces are soft, moist sugars of a yellowish-brown colour made from the syrup from the loaf, cube, crystal or granulated sugar.

Direct consumption sugars, which constitute the third class, are, as already mentioned, made directly from cane or beet and do not pass through the refiner's hands before going into consumption. Those belonging to the cane sugar category consist principally of Plantation White Sugar made directly from cane-juice with the aid of sulphurous acid gas, or with carbonic acid, or with both, in addition to the lime used in the manufacture of refining sugar. These sugars, as in the case of the white refined article, have a polarisation of over 99 per cent.,

but as is the case with all direct consumption sugars are sold on a basis of their appearance. A beet granulated sugar is also prepared, which corresponds to the white plantation of the cane, and modern beet factories are almost invariably constructed to turn out such a sugar. Demerara sugar, otherwise known as West Indian crystallised, is sugar made by a special process called the Demerara process, from cane juice of especial quality. It is, or should be, of a delicate yellow colour. It only polarises 95 per cent. or 96 per cent., but the balance is largely made up of desirable constituents and cane juice. Muscovado sugars of high class, which have been freed of their molasses either by drainage or centrifugals, and second sugars, either from white plantation or Demerara sugars, also go into direct consumption. The Indian form of concrete, *gur*, and of muscovado, *ruab*, are also mostly directly consumed. Low grades of cane sugar are also used in making beer, and go under the name of "brewing" sugars.

Commercial glucose is not a natural sugar, but is prepared by heating starches as that of maize to a very great extent, under pressure with a weak solution of sulphuric acid. It is sold either in a solid form or as a syrup, and is largely used in confectionery and beer-making. Invert sugar is a similar product made with the use of acid from low grades of cane sugar, and is used for similar purposes.

THE AGRICULTURAL COLLEGE.

It is recorded that when the "King's College of Our Lady at Eton beside Windsor" was founded by Henry VI., sundry houses and barns were used as temporary premises while the stately buildings of the College were being planned and erected. This precedent has been followed by the West Indian Agricultural College, which has recently acquired from the Government of Trinidad and Tobago the Hospital and St. Augustine House, which stand on the land near St. Joseph that is to be conveyed to them. The Hospital, which is depicted on this page, is to be converted into class-rooms and laboratories. It will become the headquarters of the Imperial Department of Agriculture, which was amalgamated with the West Indian Agricultural College on April 1st last.

This timely provision of temporary premises should enable work to be started earlier than was at first anticipated, and meanwhile it is understood that the plans for the College buildings, Principal's residence, and also houses for the staff are under the close consideration of the Governing Body and the Executive Committee in Trinidad.

At a meeting of the Governing Body held on April 5th, Mr. Samuel H. Davies, whose portrait appears on the opposite page, was elected a Governor of the College pursuant to Article 7 B. (4) of the Articles of Association, to represent the cocoa industry. Mr. Davies, who has paid several visits to the West Indies, is associated with the firm of Messrs. Rowntree & Co.



The Agricultural College's Temporary Premises.

This building at St. Augustine, Trinidad, is to be fitted up with class rooms, laboratories and offices for the temporary accommodation of the West Indian Agricultural College and Imperial Department of Agriculture.

The consumption of alcoholic potable liquors in the United Kingdom during the respective years 1913, 1920 and 1921 was as follows:—

	1913.	1920	1921
BEER. Barrels.	35,951,977	27,402,709	24,688,173
SPIRITS—			
Home-made, p. galls.	26,164,352	16,698,656	15,064,669
Imported, p. galls.—			
Rum	3,391,007	3,132,207	2,036,532
Brandy	1,607,074	1,351,521	881,389
Geneva	336,573	126,383	103,018

OBITUARY.

BRIG.-GENERAL J. A. BELL-SMYTHE, C.B., C.M.G.

It is with great regret that we have to announce that Brigadier-General John Ambard Bell-Smythe, C.B., C.M.G., died at St. Thomas's Home, London, on March 24th.

Brigadier-General Bell-Smythe was the son of the late Mr. John Bell-Smythe, who went out to Trinidad as a sugar planter and married Miss Ambard, sister-in-law of Mr. Leon Agostini. The subject of this memoir was educated at the Oratory School. Leaving Trinidad as a young man he entered the Army, receiving a commission in the 1st (King's) Dragoon Guards. He served with that regiment in South Africa from 1899 until 1900, when he was mentioned in despatches and received a Brevet Majority and the Queen's medal, six clasps. In the European War he again served with distinction, being mentioned in despatches and receiving the C.B. and the C.M.G. and a Brevet Colonelcy. He remained in the Army until 1920 when he returned to Trinidad, which he intended to make his home. It was only last year that he was married to a daughter of the late Dr. Charles Sharp Smith, of Canford Cliffs, Bournemouth. Gifted with a charming and engaging personality, Brigadier-General Bell-Smythe enjoyed a well-merited popularity, and his premature death, at the early age of 54, will be deplored by a wide circle of friends.

MR. ARTHUR JOHNSON.

We regret to state that Mr. Arthur Johnson died at Kenmore, Sidecup, Kent, on April 2nd.

Mr. Arthur Johnson was for over 50 years associated with Messrs. Gillespie Bros. & Co., the well-known West India merchants, and readers of the CIRCULAR will recall that it was only on January 16th last that he was the recipient of a testimonial on the occasion of his jubilee with that firm. For some years past he had been in poor health, but he continued to attend business until shortly before his fatal illness. Mr. Johnson enjoyed a well-deserved popularity. He was a member of the Committee of the West Indian Club with whose activities he closely identified himself until 1904, and he remained a member of it until the last. He will be greatly missed not only by the West Indian circle at home but also by a host of friends in the West Indies.

SIR PATRICK MANSON, G.C.M.G., M.D., F.R.S.

It is with regret that we have to record the death of Sir Patrick Manson, G.C.M.G., M.D., F.R.S., which occurred at 25, Portland Court, W., on April 9th.

Sir Patrick Manson was justly regarded as the Father of Tropical Medicine. Born in Aberdeen, he had intended to be an engineer, but an injury to his spine in the works where he was studying induced him to turn to medicine. Struck by the mortality from disease in Formosa, to which island he went out in 1866, he set to work investigating the causes there and in China, where he subsequently settled, with results which are well known. By the process of deduction he determined that filaria was attributable to infection through mosquitoes, which thenceforward he regarded as man's implacable foe. In 1897 Sir Patrick became Medical adviser to the Colonial Office, and in the following year he was largely instrumental in securing the successful establishment of the London School of Tropical Medicine. He was the author of many works on tropical disease.

CACAO IN COLOMBIA.

A Backward Industry.

Cacao is little cultivated in Colombia. The Colombians do not care much for this crop, because of the fact that it does not begin to produce until the sixth or eighth year from the time of setting out the trees and the plant requires from 10 to 12 years to reach full-bearing maturity. The cacao is rather delicate, and requires more care than the average native is willing to bestow upon it.

The cacao plant, says Mr. Hill, United States Commissioner, flourishes in the second agricultural zone of Colombia; that is, in the low hills and interior valleys at elevations of 2,000 to 5,000 feet above sea-level. In general, it is grown in nearly every region of the country, but in comparison with coffee or sugar-cane, the industry is little developed. More attention has been paid to cacao in the region around Ocaña than elsewhere, with the exception of Cauca Valley; but in the Ocaña region planters have suffered in the past from depredation of the Motillones Indians and banditti from the Venezuelan border, and the outlying plantations have been practically abandoned. The industry is also heavily handicapped by the lack of roads and easy means of transportation to the Magdalena River for exporting.

On the other hand, there is an increasing demand for chocolate in Colombia, and the domestic supply of the cacao bean is not adequate to supply the demand in many places; Medellín and Bogotá, for example. Small amounts of cacao are exported simply because in some places it is easier to export via Buenaventura or Barranquilla than it is to ship to Bogotá or Medellín over the mountains with a high pack-mule freight rate, or up the river, as the case may be. There are chocolate factories in almost every town of any size in Colombia, and the manufacture of chocolate is one of the most important of domestic industries.

The five chocolate factories of Bogotá cater only to the local demand, since nearly every town has its own chocolate factory. Chocolate roasting and cleaning machinery is made in Medellín. The larger factories make various candies and bonbons of good quality, which are replacing the imported articles. Good domestic chocolate candy retails for 80 cents a pound of 500 grams, whereas the imported article has to be sold for at least twice that price. Chocolate is used extensively as a beverage throughout Colombia, and especially in Bogotá. The retail price of the local product is only about 42 cents a pound of 500 grams.

The production of cacao is much better developed in Ecuador, whence several cargoes were shipped to Colombia via the Panama Canal in 1919, this movement being caused by the excessive accumulation of cacao in Ecuador during the war and the high prices offering in Colombia at the time.

Next to the Ocaña region the Magdalena and Cauca Valleys produce the most cacao.

Trees are planted about 270 to the acre, and 12 cents' net profit a tree per year may be reckoned on if the trees are well looked after, year in and

year out. There is a little work in harvesting, as not much labour is required, and no machinery of any kind is needed for cleaning, etc. When land intended for cacao is cleared, the larger trees of the jungle are left, particularly those known as "madre de cacao," which form a shade for the delicate and much smaller cacao trees.

The Chiriguana cacao district lies to the east of the Magdalena River, towards Ocaña. It was once a large producer of cacao, but is now more used for cattle raising, on account of the damage inflicted by the cacao beetle. Products are exported via the Cesar River and Chiriguana swamps to the Magdalena. In 1919 cacao plantations suffered from the protracted dry season, production was considerably reduced, and the business became speculative in the extreme. Experts who have visited this region are of opinion that irrigation should be resorted to; but this is too costly for the limited capital available, and it is easier to set out plantations in more favoured regions.

The Carare River Region in Santander produces the best cacao of the country, and, notwithstanding the slight attention paid to plantations, the crop presents a fine appearance, and the beetle gives the planters little trouble. It is said that the industry has a promising future in this region, limited only by lack of labour and capital.

There are no data available that would show the extent of plantations or production in Colombia; but it is estimated roughly that the entire crop is worth between \$2,000,000 and \$3,000,000 annually, the bulk of the consumption domestic.

United States imports of cacao from Colombia amounted to 293,931 pounds in 1916, 422,277 pounds in 1917, 157,005 pounds in 1918, and 478,910 pounds in 1919.

In colonial times the Spaniards had larger plantations in Colombia than now exist, and cacao was one of the principal products of the country for export to Europe. Prior to 1914 shipments of cacao were made regularly to Germany and France; but this trade was interrupted by the war, and the small production, combined with the domestic demand, has further curtailed exports to Europe, New York offering a better market for available shipments.

TOWARDS The West India Committee Wedding Gift to Princess Mary, the Hon. Treasurers of The West India Committee have received contributions from the undermentioned members in addition to those already acknowledged:—Mr. E. Radcliffe Clarke, Mr. Paul Dumoret, Mr. F. J. Larrouy, Mr. E. A. Lister, Mr. H. W. Lofty, Mr. Carter Rey, Mr. H. B. Sadler, Mr. G. Elliot Sealy, and Mr. Thomas Wildman.

TO POPULARISE COCOA.

Fry's Demonstration Kitchens.

A COUNTRY COCOA KITCHEN.

It was suggested a few years ago in the West Indies that too little was being done in the direction of securing publicity for that "grateful and comforting" beverage known as cocoa in the Old Country. As a matter of fact, there is no commodity which is so widely advertised in this country, Cadbury, Rowntree and Fry, "the big three" in the cocoa manufacturing trade, spending what must be immense sums in calling attention to the merits of the various products based on the Golden Bean. In this connection an interesting



A Country Cocoa Kitchen.

This is one of the demonstration cars which are touring the country with the object of popularising cocoa, cups of which are distributed from it to the local housewives.

development is to be recorded. Messrs. J. S. Fry and Sons, of Bristol, have put on the road a small fleet of model kitchens, which visit country villages under the command of lady demonstrators, whose object it is to interest the housewife in cocoa by showing her how it should be made. The vans, one of which is depicted on this page, are painted a striking orange colour, and the modus operandi on reaching a suitable suburb or village is for the demonstrators to throw open the two sides and backs of the cars, thus exposing to the public gaze a neat little kitchen lined with white zinc tiling and enamelled woodwork, and an oil stove, on which the cocoa is prepared. After the demonstration the hot cups of cocoa are handed round and the consumers go to their homes happy and contented and determined to include cocoa in their weekly shopping list if they do not do so already.

One of these demonstration vans is now making a southern tour from Bristol, along the south and east coasts, while the other is striking north through the industrial districts, and Messrs. J. S. Fry and Sons inform the CIRCULAR that the results have proved eminently successful.

THE SPIRIT DUTIES.

The West India Committee have addressed the following letter to the Chancellor of the Exchequer urging that provision may be made in the forthcoming Finance Bill for a reduction in the duties on British spirits:—

The West India Committee,
15, Seething Lane, London, E.C.3.
24th March, 1922.

Sir,—We desire to call your attention to the serious falling off in the consumption of rum which has resulted from the present high spirit duties.

2. It is shown by the Board of Trade Returns that the deliveries of rum for home consumption fell from 3,182,207 proof gallons in 1920 to 2,036,532 proof gallons in 1921. This falling off must be attributed mainly to the excessively high spirit duties.

3. In the year 1920, before the serious effects of the trade slump began to make themselves felt, consumption was maintained in spite of the duty on British rum having been raised from £2 12s. 10d. to £3 12s. 10d. per proof gallon during the year. When, however, the depression became acute, the rum-consuming classes in the population were no longer able to afford the high prices which naturally had to be charged for rum by the retail trade.

4. From the West Indian standpoint this matter is one of great concern, since rum forms a valuable by-product of sugar, and its production and disposal are material factors in reducing the cost of production of sugar, which, at the present time, when the world's prices are below the cost of production, is a very important matter.

5. As a result of the falling off in the consumption of rum, the revenue derived from the duties on that spirit in the United Kingdom, as indicated by the Board of Trade Returns, has fallen from £10,301,319 in the calendar year 1920 to £7,510,567 in 1921. If, therefore, the object in imposing the high duties was to secure an increased revenue, it is clear that this has not been attained. On the other hand, we are confident that if a reduction in the present duties were to be made, the revenue of the country would benefit, since the consumption of rum would resume its pre-war proportions, which in 1918 amounted to 3,331,007 proof gallons.

6. It might be suggested that the spirit could be disposed of for power purposes; but in this connection we would wish to point out to you, sir, that few facilities for the manufacture of spirit of a strength suitable for power purposes at present exist in the British West Indies and British Guiana, and that, in the existing condition of the sugar industry, it would not be possible to incur the expenditure for setting up new stills. Apart from this, the demand for power and motor spirit in the British West Indies and British Guiana would be insufficient to absorb the supply, even if a large proportion of the spirit produced were diverted in this direction. Moreover, the spirit would be unable to compete on any scale with petrol at its present price, while no demand exists in the United Kingdom for British West Indian alcohol for power purposes.

(Concluded at foot of next column.)

JAMAICA IMPERIAL ASSOCIATION.

A Notable Year's Work.

At the end of 1921, when the Imperial Association had been in existence for four years, its net membership totalled 288, including associates, but affiliated membership brought the number up to nearly 8,000. The annual report, which was presented to the general meeting of the Association on March 8th, is a record of a useful year's work, consisting largely of efforts, like those of the anti-waste movement at home, to induce the Government to curtail its commitments until they were in keeping with what the island could afford. The Government railway looms large in the report, the Association protesting strongly against the increased freight rates at the beginning of the year, representations having also been made regarding extension and electrification.

As regards taxation, the Association resisted increased imposts, as also the broadening of the basis of taxation, arguing with regard to the suggested inclusion of men earning less than £2 a week within the scope of the income tax, that "not only has a man with one or two pounds a week to pay all the taxes he paid in 1913, but he pays far more taxes than he did in 1913." As a result, the income tax was not increased last year, nor was any new taxation imposed. Perhaps the most successful of all the year's achievements was that undertaken in conjunction with The West India Committee last summer, when, as the result of the visit of a strong deputation to the Colonial Office, Mr. Churchill promised to scrutinise very carefully any proposals involving additional expenditure in the colony.

In this connection, the report states that "there is every reason to believe that the Colonial Office carried out its promise to our deputation, and that the representations made by this deputation to the Colonial Office had considerable influence in determining the latter to send to this and other British West Indian colonies the Commission which visited Jamaica in December last."

The Association also co-operated with The West India Committee in the questions of the rum duties and the unpatriotic school-books in use in Jamaica schools. Among questions dealt with by the Association during the year may be mentioned the mail service, wharfage rates, venereal disease, prædial larceny and the distress among Jamaicans in Panama, as showing how wide is its scope and how lively its concern for the best interests of Jamaica.

7. In the circumstances we beg to express the hope that in the forthcoming Budget His Majesty's Government will see their way to make a substantial reduction in the present high duties on British spirits, which are rapidly undermining an important British industry.

We have the honour to be, etc.,
R. RUTHERFORD, Chairman.
ALGERNON ASPINALL, Secretary.

PREVENTION OF PLANT DISEASES.

Some Helpful Hints from Jamaica.

Mr. C. C. Gwdey, B.Sc., F.E.S., F.Z.S., the Jamaica Government Entomologist, gives the following advice to agriculturists as to general methods which should be adopted for the prevention of plant diseases, in the Entomological Circular No. 5, 1921, of the Department of Agriculture for Jamaica :—

(1) Submit promptly to a competent authority any disease with which you are familiar, as soon as it comes under your notice in your locality, for by so doing you may be assisting in preventing the establishment of a dangerous disease.

(2) Endeavour to avoid the first introduction of disease into your cultivations by taking the trouble of inspecting your nursery stock, rejecting any plants or seeds that are diseased. In some cases it may be advisable to disinfect seeds by immersion for a quarter of an hour in a solution of corrosive sublimate (1 : 1,000), and in the case of sugar cane by soaking the seedlings in Bordeaux Mixture.

(3) Collect and burn all diseased plants, or parts thereof, crop debris and prunings. In the case of diseased plants these are obviously a medium of infection. Crop debris and prunings may not only furnish food for insects in the interval between harvesting and planting, but also provide hiding-places for pests.

(4) *Rotation of Crops.*—In the case of a crop badly attacked by an insect it should be followed by other crops, not closely related, which are not liable to be attacked by that pest. It is well known that certain varieties of plants are much less susceptible or more immune to certain diseases than others. Though complete immunity of one variety of plant to a disease affecting other varieties of the same plant is distinctly rare, the less nearly related the crops are to one another the less likely are they to be affected by the same disease. This, then, points to the advisability of a system of rotation of crops, for in this way many parasites can be starved out, though this is not always possible, owing to the omnivorous character of certain insects.

(5) *Cultivation.*—The object of an agriculturist should be to maintain his crop in a vigorous, thrifty condition, and this can be obtained without forcing, which is undesirable, for plants in such a condition produce sappy growth—a condition predisposing to disease. Vigorous, thrifty crops can be obtained by proper cultivation, fertilizing with suitable manures, and pruning. Cultivation by causing physical, chemical and bacterial changes in the soil, increases the food supply of the crop. By thorough cultivation soil aeration is increased and thereby a larger proportion of the soil constituents are acted on by the atmospheric oxygen, resulting in a larger supply of plant food being rendered available. Also, by frequent cultivation, the constituents of the soil become more mixed and balanced. Cultivation breaks up the particles of the soil, and the

smaller the particles the larger the area exposed to the solvent action of the root-hairs; and, furthermore, the finer the soil the more easily is it penetrated by the root system, which becomes more extensive and co-ordinates with the extensive root system in the increased vigour of the plant and increased resistance to disease. Proper cultivation improves the conditions for the development of the bacterial organisms in the soil, whereby more food is rendered available. The organisms may be regarded as falling into two classes. The better known are the bacteria which form nodules on leguminous plants and store up atmospheric nitrogen, which on decomposing becomes available as plant food. Soils on which these bacteria naturally occur may by cultivation be so improved that the bacteria increase. The other class of bacterial organisms decompose vegetative substances rendering them available as plant food, and this process of decomposition is aided by aeration, that is, by cultivation.

(6) *Fertilizing.*—If a vigorous condition of plants is to be attained the necessity for the fertilizing of the crop and so supplying the constituents required by it and which may be absent or deficient in the soil is obvious. Equally so is the necessity for the knowledge of what constituents required by the crop are and in what constituents the soil is deficient; in other words, the planter should ascertain the food his crop requires and have his soil analysed, and then he will be in the position to know what fertilizer to apply.

(7) *Pruning.*—That pruning, markedly in the case of horticultural crops, has a beneficial effect as shown in the vigour of the plant and in the quality and quantity of the fruit, has progressed beyond the empirical stage and is now an accepted fact and should be practised by every planter.

(8) *Fallowing.*—The term refers to the practice of resting the land for a varying period between the harvesting of the main crop and the next planting of the same crop, not necessarily implying that no crop whatsoever is grown on the land in fallow. The three main ways of fallowing land are :—

Firstly, by abandoning the land and allowing the stubble of the main crop to remain and grasses and weeds to grow unchecked during the interval of the harvesting and planting of the main crop, or for even longer. The reason for such a practice is that it is considered that certain pests, for example, root borers, will be starved out; and this is to a certain extent true. Such a practice as this should not be considered in the event of an attack of the Fall Army Worm on sugar cane or corn, for this pest feeds readily on grasses and certain weeds.

Secondly, a clean fallow, that is, the removal of the remains of the main crop and the maintaining of the land free of vegetation of any sort by frequent cultivation. The advisability of this practice is open to question, in the tropics at any rate, for it is quite probable that the good results accruing from this practice may be neutralized by the probable destruction of the bacterial organisms exposed to the sun by cultivation in the absence of shade-giving vegetation.

Thirdly, the growing of a leguminous crop imme-

diately after the harvesting of the main crop. The value of the practice is that the tilth of the soil is maintained or increased by the cultivation necessary for the raising of this crop, the production of green manure, and the fixation in the soil of atmospheric nitrogen by means of the bacteria within the root nodules.

RUM AND IMITATIONS.

The West India Committee recently represented to the Commissioners of Customs the desirability of distinguishing rum from imitation rum in the monthly Board of Trade Returns. The Commissioners in reply, pointed out that this differentiation is made in the Annual Statement of Trade in the United Kingdom, adding that, in the interests of economy, and in order not unduly to swell the size of the monthly accounts, it is necessary closely to restrict the number of separate headings therein, and the imports of imitation rum are not at present of sufficient volume, as compared with those of genuine rum, to justify their being distinguished in the monthly publication.

The West India Committee have now pointed out that the change could be effected without any material disturbance of the setting of the pages on which the figures relating to rum now appear, and have renewed their request, calling special attention to the fact that imitation rum is now being made by a new process from beet-sugar in Germany, which, on the existing basis of exchange, might possibly find its way to the United Kingdom. It is true that in 1920 (the latest year for which detailed figures are available) imports of imitation rum into the United Kingdom, as is shown below, were negligible; but the principle remains, and the possibility of any attempt to foist imitation rum on to English markets must be at once countered. These imports were:—

	Proof gallons.
Netherlands	94
France	244
Spain	226
Other countries	248
Total	812

A USEFUL HAND.

A remarkable hand of bananas was recently found by Messrs. Sutton & Weaver, of Cardiff, in a consignment of fruit received through Messrs. Elders & Fyffes, Ltd. According to the *Banana Budget*, the interesting little weekly bulletin of that firm, the hand contained no fewer than thirty-four fingers, each one of which weighed 10 lbs. The hand which is depicted on this page measured 17 inches from tip to tip, and weighed no less than 10 lbs.



TREASURE IN DOMINICA.

Romantic Find of Lost Gold.

A recent homeward mail brought from the West Indian island of Dominica a romantic story of a find of treasure. It appears that over a century ago, when a vessel called the *Two Sisters* (Captain O'Neale, of Bristol), which had anchored in the roadstead of Roseau, was unloading her cargo, a chest containing upwards of £40,000 in Portuguese gold fell overboard as the stevedores were transferring it into a boat, and was lost in ten fathoms of water.

Last month, while some of the boys who eke out a modest living by diving from crude boats of their own make and retrieving coins thrown by tourists from calling steamers were bathing near the Hell Jetty, one of them found in the water a large gold Portuguese coin. This discovery was followed by others, and for some time the boys made quite a profitable business of this search for gold, about 90 coins in all having been found and sold for as much as three pounds each. Then the local Mandarins stepped in, and declared that the treasure was the property of the Government. Consequently the boys, compelled to stop searching for more gold on their own account, are now carrying on their operations on behalf of the local Government, which grants them permits to search on the understanding that all the coins recovered are handed over to the Dominica Treasury, which rewards the lads by giving them one-third of their gold value—a very fair arrangement.

Dr. the Hon. H. A. Alford Nicholls, to whom the writer is indebted for this interesting information, expresses his conviction that these coins are part of the identical treasure lost more than one hundred years ago, and he suggests that a hurricane which visited the island in September last, and was followed by exceptionally high seas and surf on the leeward side of the island, no doubt shifted the treasure which has been for so long hidden from sight.

From the *Dominica Chronicle* it appears that a party of Government officials recently made a survey of the bottom of the sea in the neighbourhood of the find. They comprised Mr. P. Noble, the colonial engineer, Mr. Barnett, Mr. Bully and Mr. Aird, who put off in a boat with a marine glass constructed by Mr. Bully, but they found nothing.

ANTI-DUMPING IN AUSTRALIA.

A Commonwealth Tariff Board has been established in Australia which will superintend the Australian anti-dumping proposals that were recently legalised. The anti-dumping duties are intended to prevent injury to Australian industries by the sale of goods from other countries at prices below the normal cost of their production. There is also an important provision for a "dumping preference duty" to be imposed on goods from foreign countries offered in Australia at less than the fair market value of such goods as they are manufactured and sold in the United Kingdom.

THE OIL PALM.

Its Suitability for the West Indies.

One of the most valuable trees in commerce is the African oil palm *Elaeis guineensis*, the fruit of which furnishes two oils that are largely used in the manufacture of soap, candles and margarine, and is greatly in demand in consequence. Although principally found in coast lands, at a consequently low elevation, the oil palm is capable of flourishing inland at a considerable altitude, and may be said, indeed, to be able to adapt itself to soils showing considerable variation in character and composition.

The principal habitat of the oil palm is West Africa, on the coast lands stretching from the Gulf of Guinea to the south of Fernando Po. It grows on the islands of Zanzibar and Pemba, and recently large areas have been planted with oil palms on the East Coast of Sumatra.

The tree in growth presents the ordinary palm character. Its mature height is between thirty and forty feet, and in connection with the leaf growth at the summit is found the fruit. This consists of a fleshy, fibrous outer layer of a reddish-yellow colour, within which is an extremely hard shell, enclosing the kernel.

As mentioned above, the fruit furnishes two descriptions of oil, the one yielded by the fleshy covering of the nut, and the other by the kernel. The first of these is of a yellow colour, and is obtained by boiling the fruit with water. After cooling, the oil thus separated is pressed out of the mass, and is skimmed off as it rises to the surface. It is then refined by being reboiled and skimmed, the oil thus obtained being subjected to further drying by heat. This is the palm oil proper, the second product, which is obtained from the kernels, being known as "palm kernel oil."

In the preparation of the kernel oil, the nuts are cracked and the kernels collected. These are ground by mills, and oil extracted by the use of hydraulic presses, the resulting cake being of value for cattle food. Unlike the oil obtained from the flesh, the kernel oil is white in colour, but possesses the same pleasant odour when fresh. The kernels are, as a rule, shipped as such to the country of purchase, where the extraction process is carried out.

Where the cultivation of the oil palm is conducted systematically, it is calculated that the annual production of palm oil proper and of kernels per acre, with the trees planted 26 feet by 21 feet, is, on those arriving at full bearing, which is usually in ten years, one ton and a half of oil and one-third of a ton of kernels.

The oil palm is practically unknown in the British West Indies, although its suitability for the conditions there has been recently demonstrated by a specimen having been found growing wild among the flora of an abandoned sugar estate in British Guiana.

Its great value lies in the fact that its cultivation is admirably suited to peasant growers, who are in a position to prepare oil from the fruit, as described above, which can be used for food and other local purposes, while the local purchase for shipment of the kernels furnishes a source of supply of cash. At the present time the market of the United Kingdom is readily supplied from West Africa; but what Africa is to Great Britain, the



The Colonial Hotel at Nassau.

This great tourist hotel in New Providence was destroyed by fire at the end of March.

British West Indies might, in this respect, be to Canada.

A FIRE AT NASSAU.

The Colonial Hotel Destroyed.

A serious and destructive fire is reported to have broken out at Nassau, the Bahamas, at the end of March. At one time it was thought that the whole of the town would have been involved, but the flames were eventually subdued—not, however, before damage to the extent of millions of dollars had been done. It would appear, from the scanty information at present to hand, that the outbreak originated in the Colonial Hotel, which was completely destroyed. This handsome modern hotel, an illustration of which is given in this page, had accommodation for 600 guests. It was one of the well-known Flagler group, being owned by the Florida East Coast Hotel Company. It is a remarkable fact that only at the end of last year an up-to-date set of fire-fighting appliances was installed in Nassau.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

At a recent sale of seed potatoes at Paisley, a new variety, yeleft Katie Glover, sold at 11/6 per lb., or £1,288 per ton.

* * *

The manufacture of milk products is becoming an important industry in Australia, the annual quantity of milk dealt with being about 34,000,000 gallons. The products manufactured are concentrated milk, unsweetened condensed milk, dried milk, lactose, and lactogen, together with infant and invalid foods.

* * *

"G. A. J.," in the *St. Madeleine Quarterly Review*, says that one of the secrets of the success of the real cane farmer in growing canes at a cheap rate is the fact that he combines cane cultivation with vegetable growing, and that this is, if not the only way, the most profitable, has been shown in the demonstration plots associated with the Usine St. Madeleine estates.

* * *

A great deal of misconception exists as to what is meant by "treacle," the term being frequently confounded with "molasses." Properly speaking, treacle is a by-product of the refinery, and means the mother liquor from the crystallisation of the sugar made from the preliminary centrifugal washings of the raw sugar. Molasses, on the other hand, is the residual syrup from cane or beet juice after as much sugar as possible has been extracted from it.

* * *

The *Coccidæ*, or scale insects, form a remarkable group, in that the female does not progress to the winged state, but after a short larval period undergoes progressive changes, culminating in becoming merely a living egg-sack, with the simplest of organs; whereas the males, on the other hand, pass through the usual metamorphoses common to most insects. Although (as Mr. Gowdey remarks, in an article on the *Coccidæ* of Jamaica, in the *Entomological Bulletin*, No. 1, 1921, of the Department of Agriculture of that Colony) the adult females are unable to fly, and with a few exceptions unable to walk, after they commence feeding, there is no group of insects which has a wider distribution, the reason for this being that their fixed motionless state makes it easier for them to be transported *in situ* with the plants on which they are feeding.

* * *

It is generally stated that the reducing sugar of the sugar cane is optically active, but the analysis of molasses in which it has collected does not bear this out. Deerr, in his book on sugar, gives analytical figures for twenty samples, ten of Javan and ten of Hawaiian molasses. In the case of the former, the percentage of sucrose obscured in direct polarisation varies from 7.7 per cent. for 20.7 per cent. reducing sugar to 0.3 per cent. for 15.4 per cent., while in one case the direct polarisation was actually 0.6 per cent. higher than the sucrose per-

centage, in spite of 25 per cent. of reducing sugar being present. In the case of the Hawaiian samples, the variation is from 11.3 per cent., obscured by 5.9 per cent. of reducing sugar, to 1.4 per cent. obscured by 21 per cent. If the reducing sugar natural to the sugar cane possessed optical activity, this would surely be constant for all sugar canes, and in all countries. The extreme variations in the above results point to the reducing sugar of the molasses being a mixture of sugars, invert sugar being probably produced by traumatic injury to the cane during life, or post-mortem change after cutting, or inversion in manufacture.

* * *

There is considerable divergence of opinion among experts as to what occurs as regards the sugar content of the sugar cane at the period of arrowing. Some contend that the quantity and composition of the juice as regards sugars remains unchanged; others, that the proportion of the sucrose diminishes, while that of the uncrystallisable sugar increases; others, that there is a diminution in the amount of the juice. What actually occurs is this: When the great vital process which culminates in the development of the arrow takes place, instead of the excess of uncrystallisable sugar over ordinary growth requirements being stored up as sucrose, its whole energy is devoted to the production of seed, some of the sucrose also being drawn upon for the purpose. When the arrow "falls," the vital purpose of the cane is gone, and the remains of its vitality accumulates as sucrose for the benefit of the next bud generation. During the arrowing process, therefore, the proportion of sucrose in the juice diminishes, while that of the uncrystallisable sugar increases, while, in the subsequent ripening change, the converse takes place.

* * *

In a circular issued by the Jamaica Department of Agriculture on the subject of the prevention and control of insect pests, Mr. C. C. Gowdey, B.Sc., states that in the case of all crops, the best possible conditions for growth, such as thorough preparation, cultivation, etc., are of great importance in the prevention of diseases. It often happens that the same crop is grown for many years on the same land, and as a result the land is exhausted and infested with disease. In such a case the trouble is often attributed directly to weather conditions, to insect and fungus diseases; but though these do play an important part in the failure of the crops, Mr. Gowdey considers that these factors can be partially controlled by the adoption of certain agricultural practices with the view of rectifying primary adverse conditions. It is probable, he goes on to say, that the greatest advances to be made in the control of plant diseases will be in the development of resistant varieties of crops by hybridisation and selection. The so-called "improved" plants are usually so from the point of view of the consumer, and consequently of the grower, and not from the point of view of the vitality of the plant, which by the "improvement" is removed from the normal and becomes more susceptible to disease.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 150.)

From Colon on the Atlantic side of the Panama Canal to Balboa on the Pacific, the distance by water round South America is 10,500 nautical miles. The length of the Canal being 44 miles, it follows that the maximum distance that can be saved by using it is 10,456 miles. This fact is perhaps more interesting geographically than it is from the commercial point of view, since vessels bound for the Pacific by way of the Straits of Magellan would not skirt the entire coast of South America; but it will give the reader some idea of the advantages offered by the Canal, which has opened up a new route from England to the Commonwealth of Australia, and has brought New Zealand 1,500 miles nearer to the mother country than it is by way of the Suez Canal. It has also given us shorter trade routes by 6,046 miles to the Pacific ports north of Panama, and by 2,600 miles to those south of that city; but the principal advantages of the Canal are derived by New York and other cities on the Eastern seaboard of the United States and Canada, which have been brought several thousands of miles nearer to Australia and the Far East by a sea route than they were before.

Captain Mahan predicted that the opening of the Canal would change the Caribbean Sea "from a terminus and place of local traffic, or at the best a broken and imperfect line of travel . . . into one of the great highways of the world." His words are now coming true, but it cannot be said that the West Indian Islands, except possibly Jamaica, have as yet derived any practical benefit from the opening of the Canal. Several important shipping companies are already using the new route; but though their steamers may touch at Kingston, Jamaica, on their way to and from the East, they have so far refused to carry passengers and cargo to and from West Indian ports on the grounds that it is more profitable to fill their space for the whole of their voyage rather than for part of it. This sounds reasonable enough; but there must be occasions when spare accommodation is available, and the argument would apply equally to the Suez route. Yet the P. & O. and other steamship lines carry passengers to Egypt on their long voyage to the East by way of the Mediterranean. Perhaps some day one of the companies using the Panama route may be tempted similarly to place vacant berths on its steamers at the disposal of passengers for the West Indies. Meanwhile all that can be said is that the opening of the Panama Canal has served to bring the British West Indies before the public eye, that it has attracted to them an increasing number of visitors, and has given them a striking object-lesson of the advantages of modern sanitation and the prevention of tropical disease.

As we steamed out of the Canal the sky was overcast, and the sea was dashing itself angrily against the breakwater of Punta Toro, throwing up great masses of spray. This augured ill for our voyage to British Honduras, and to add to the apprehensions of the only landsman on board the *Calcutta*,

the seamen were luffing the awnings, and the Admiral's steward was putting away all movable ornaments and knick-knacks in a manner that was decidedly ominous. That night, on gaining the open sea, we did pitch a bit, and it required an effort of will to make the passage from my new eyrie on the foremast and face the perils of my host's generous dinner-table. But next day all was calm again, and we were once more speeding over a placid blue sea, disturbing with our cutwater the flying-fish which rose in shoals under our bows.

We were now heading north for the Gulf of Honduras, and parallel with the main of Central America, passing in succession Costa Rica, Nicaragua, and Honduras. For two days we pursued the even tenor of our way over a glassy blue sea strewn with saffron-coloured gulf-weed in streaks and patches. Again one could enjoy the easy delights of a good book from the Admiral's varied library and a comfortable deck-chair under the lee of the barbette of the six-inch guns on the quarter deck, a *dolce far niente* rendered more complete by watching others carry on with the multifarious duties that go to make up life on one of His Majesty's cruisers at sea.

On the third morning out, which happened to be Easter Day, we entered the Gulf of Honduras. Overnight we had been compelled to heave to for a while and submit to a most unpleasant dusting owing to a light on a charted cay failing to make its appearance. For an hour or so we rolled almost gunwale under, but soon after dawn our equilibrium was restored, and we were picking our way through a maze of islets and cays, which form a broken barrier reef, to Belize, the capital of British Honduras.

It might be supposed from its name that that outpost of Empire is adjacent to Honduras, and it is probable that one of the reasons why British Honduras has not found favour with English capitalists is because they identify it in some way with the Republic of the same name, which stinks in the nostrils of financiers, having defaulted on its loans almost from time immemorial. But as a matter of fact, British Honduras nowhere marches with Honduras, and its name is therefore a misnomer. For the above reasons a good case could be made out for rechristening British Honduras, Belize, after the buccaneer Wallis, who first settled there, or Churchillia, if the Colonial Secretary would devote himself to the serious development of this outpost of Empire, or Lloydgeorgia, in accordance with the practice of making up portmanteau names (e.g., Ladysmith) so popular in South Africa—and this might help towards extricating the colony from the rut in which, as we shall see later, it has unfortunately stuck.

It has been said that the best view of Belize is obtained from the stern of a departing steamer, but the implication involved in this statement is neither fair nor correct. The appearance of the town as one approaches it is quite pleasing. The first object that strikes the eye after passing the cays with their waving coconut palms is a substantial white building looking like a great seaside hotel, and the disappointment of visitors is profound when they learn that Belize is innocent of such luxuries, and that

this promising-looking edifice is St. John's College, a Roman Catholic institution run by the American Jesuits. Away to the right of this College a group of dainty white houses with red roofs in a setting of coconut and cabbage palms rise out of the sea, and in the dim distance the hazy outline of a range of mountains shimmers in the heat of the tropical sun.

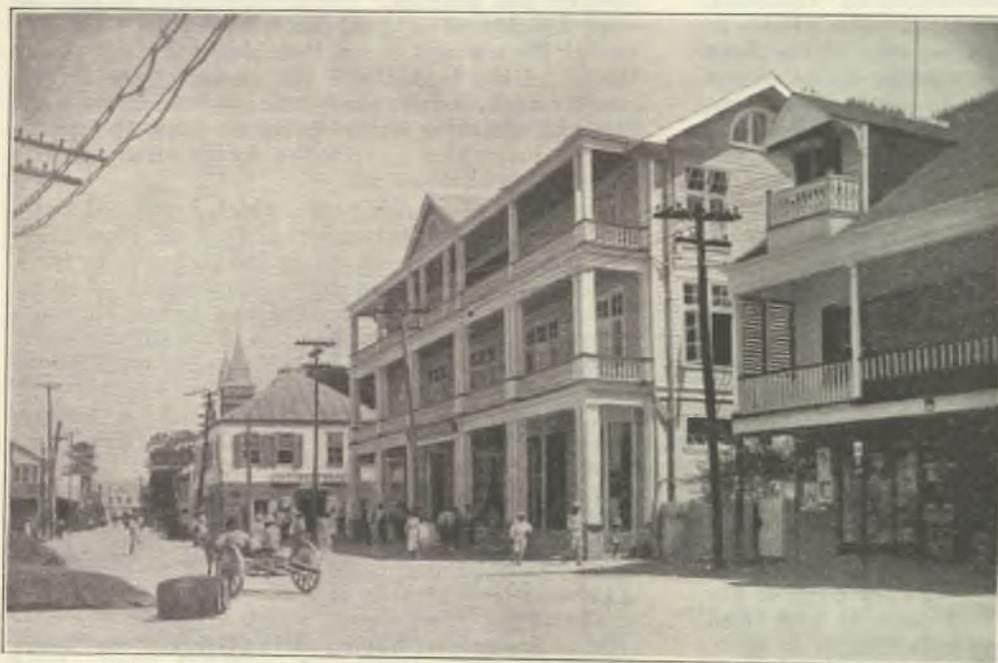
Shortly after mid-day we dropped anchor about three miles from the town. A launch came out to meet us, and the usual formalities connected with the granting of pratique having been observed, an amiable young official took me ashore, and then busied himself ringing up my friends to tell them of my unexpected arrival. The residence of Mr. Graham, Hon. Correspondent of The West India Committee, was naturally my first objective, and that worthy individual could not have been more

Belize is actually built on a reclaimed mangrove swamp; but the reclamation did not proceed far enough, and consequently the health of the people suffers. The front streets are clean and tidy, but of the back through which ugly drainage trenches run, the less said the better.

The town straggles along the sea front and up both banks of the Belize River, which would divide it into two parts but for the unswingable swing bridge. Below this bridge lie clusters of little sloops and schooners, any one of which might have existed in the hectic days of Tom Cringle, with their raking masts and dog-hutches on deck, and passengers of many shades of colour, who use these vessels for reaching the outlying places on the coast and the cays. Above it are equally numerous small craft, including dug-outs skilfully

fashioned from various trees by black men by means of fire and adze. The larger of these boats, known as Pitpons, periodically make the journey of over 100 miles between the capital and El Cayo on the western frontier, where goods are transferred to muleback and carried to the Peten district of Guatemala, while the shorter boats, called Doreys, are used for lesser trips down the coast and up the river, and woe betide them if they are overtaken by a sudden "Norther," a wind which springs up, as we soon had good reason to know, with remarkable suddenness.

On either bank of the river are merchants' stores, some



North Front Street, Belize.

The three-storeyed building is that of the Belize Stores, belonging to Belize Estates & Produce Co.

surprised if I had dropped down from the clouds when he heard that I was in Belize.

His house is in Regent Street, perhaps the chief thoroughfare of the town, and on the way there my guide pointed out the actual spot where, in August, 1918, Mr. Hart-Bennett, C.M.G., who had given promise of being one of the most sympathetic and thorough Governors who have ever presided over the destinies of British Honduras, was fatally wounded during a fire through some misguided individual throwing down from a roof a flagstaff, which struck him on the head. Another reminder of the conflagration was the gaunt and stark shell of the Public Buildings, still standing forlorn and desolate, there being no adequate funds available for their restoration. That is one of the tragedies of British Honduras. There are never any funds. So the Public Buildings are still in ruins, the streets remain almost unpaved and riddled with the holes of repellent land crabs, the swing-bridge over the river does not swing, and the town is hemmed in to landward by an evil-smelling swamp.

with landing rafts and sawmills, while on the surface of the water great baulks of mahogany, dogged together, await shipment after being floated down the river. The right bank ends in a short and flat promontory called Fort George, though no vestige of a fort remains, and there is nothing more offensive, nor defensive, upon it than the headquarters of the United Fruit Company, which traffics in such fruit as the Colony produces. In the streets primitive telegraph posts spring up in every direction from unpaved sidewalks, though in this twenty-second year of the twentieth century British Honduras is still deprived of telegraphic communication with the outside world except by wireless, which can only pick up Swan Island, 270 miles out to sea, whence messages have to be relayed, by courtesy, if you please, of the United Fruit Company. This station was established before the war by the Germans, whose known ambition it was to have a place in the Caribbean Sun. Now its possession and that of the island on which it stands is a subject of international controversy.

But let us return to Regent Street. At its far end is Government House, where we were entertained by Mr. (now Sir) Eyre Hutson, the successor as Governor of British Honduras to Mr. Hart Bennett, whose enthusiasm and eagerness to develop the Colony he too evinces. A very roomy, wooden building, raised up on piles, with spacious reception rooms, wide verandahs and windows shut in with blue jalousies, it overlooks on one side a lawn running down to the sea, and on the other the old red brick Cathedral, by whose square and squat tower stands an immense vat to receive the rains of heaven, on which Belize depends for drinking water.

In accordance with a time-honoured Easter custom, the lawn was thrown open in the afternoon to the people, who flocked to it to hear Mr. Pinkney's band, and listened to an excellent concert given by these negro musicians. The people looked prosperous and happy, and were far better dressed than any we had seen in the islands, the young ladies being attired in gay yellow, pink and blue muslins and picture hats, and the men in spotless white or else suits of a distinct American cut, bearing the unmistakable stamp of New Orleans. But for the best dressed men in the town, you must look for a procession of one of the friendly societies, whose members do not consider themselves correctly attired unless they are wearing long black frock coats and top hats, which look more lugubrious with black faces than they do even with white, though they are relieved by many coloured aprons, sashes and scarves of their craft.

In Belize, men and women of African descent greatly predominate, but elsewhere in the Colony the people are of Spanish, Indian and Carib as well as African origin. As far as is known, the original inhabitants of British Honduras were the Maya Indians, who from some period before Christ until the sixth century were responsible for a civilization that is believed to have been of an advanced and highly artistic character. They failed, however, to support themselves by tilling the soil, and were starved into emigration to Yucatan. So their country was left desolate until the thirteenth century, when, after the Toltec invasion of Yucatan, the survivors of the Mayas returned and carried on a precarious existence until they were practically exterminated by the Spanish conquistadores. Now the population of British Honduras is only 35,317, or five to the square mile, and Mr. W. R. Dunlop, who at the time of my visit was investigating the possible agricultural resources of the Colony, has in his report sounded a serious note of warning, pointing out that unless agriculture is developed its people will share the fate of the Mayas.

(To be continued.)

The Canadian Pacific Railway announce that their cargo steamer *Montezuma* will maintain a regular service between Montreal, Bermuda, Barbados, Trinidad, and British Guiana. She will leave Montreal for her first trip on this route on May 15th.

THE NAME "GUIANA."

By REV. JAMES WILLIAMS.

(Continued from page 151 and concluded.)

Dr. J. Crevaux points out that the Indians known in French Guiana as the "Roucouyennes" call themselves "Ouayanas," and he reproduces a passage from Thevet which will be given further on.

Thevet's well-known work, "Les Singularitez de la France Antarctique," was published in 1558, but Ternaux-Compans found a MS. in the "Bibliothèque royale," from which he quotes the following:—"Thevet, dans la relation de son voyage, rapporte qu'ayant eu occasion d'interroger un prisonnier qu'avaient fait les Indiens Tapouyas qui habitaient vers l'embouchure de l'Amazonne, celui-ci lui parla de la province de Ouyana comme d'un pays très-riche, et lui dit que pour s'y rendre il fallait remonter la rivière de Kourou."

Coudreau says that the name "Roucouyennes" was given by the first colonists to a people who called themselves "Ouayanas" or "Gouayanas," which he thinks is the origin of the name "Guyane."

As to this, M. de Goeje has the following:—"Coudreau fut le premier à émettre l'hypothèse que les Oyanas (ou Ouayanas) auraient demeuré près de la côte et que le nom Guyane ou Gouayana ne serait autre que le nom de cette tribu. Cette hypothèse ne s'appuie que sur la ressemblance des noms, elle est dépourvue de toute autre base." Apparently, M. de Goeje, like Mr. Rodway, has somewhat overlooked the testimony of the Spanish historians.

It may be impossible now to determine whether the "Ouayanas" of these French writers are the same as the "Guayanos" of the Spaniards; whether the tribe of French Guiana is connected with the tribe of the Orinoco; but that Aborigines called "Guayanos" or "Guayanas," belonging to the Carib race, dwelt on the banks of the Orinoco is surely beyond doubt. Schomburgk has remarked on the movements of tribes in former days:—"While ascending the Rupununi last March, I saw at one of the settlements a Carib, who told me he had lately come with others from the Lower Marowini, and entered the Corentyne to join their relations at the Rupununi, and that they had left their craft at the place where the path leads from the Corentyne to the Essequibo. . . . The antiquity . . . of this path rendered it very interesting to me . . . The Caribs, those scourges to the less valiant tribes, settled from Surinam along the Rupununi, and by means of another much frequented path held intercourse with the Caribs of the Caroni and the Orinoco." And again:—"Andrés Miguel had visited the mountains in a S.S.E. direction, which he described as extensive and inhabited by a nation called Aroaki. If this be founded in fact, it would be a remarkable instance of the distribution of tribes, as there could be no doubt that the Arawaaks, who at present inhabit the coast regions of Berbice, Demerara, and Essequibo, wandered from the South to the North. Baron Humboldt, in his enumeration of the Indian races who inhabit the former province of New Andalusia,

observes that the Pariagotos, or Parias, formerly occupied the coasts of Berbice and Essequibo. They have advanced, therefore, further west, while the Arawaaks, from the south, and the Guaraounos or Warraus from the W.S.W., now occupy their place. The few Caribs who at present inhabit British Guayana say that their ancestors came from the Orinoco."

Gumilla states that the Guayana Nation lives in friendship and alliance with the Caribs Nation, and that the "Guayana" language is derived from the Carib.

It may be, as indeed often happened, that one tribe was known by two names; at all events, Strickland, in a list of the Missions, describes the Indians at the "Mision . . . de Caroni" as "Guayanos ó Pariagotos." The same writer gives a document, dated September 9th, 1682, which states that two settlements ("Pueblos") of Pariagotos existed in the city of Guayana, who had been civilised from among the people who dwelt in the neighbourhood. The Commandeur, Essequibo, writes to the Dutch West India Company, under date of January 15th, 1685, that:—"The French in the Barima comé and fetch them (i.e. hammocks. J.W.) even as far up in the Cuyuni, and have burned there the houses of the Pariacots, and have driven them away, the latter collect the balsam from the trees. . . ." The Savannah up the Cuyuni River was known as the Pariacot Savannah. Certain instructions of April 20th, 1755, make reference to the Caribs passing from the Caroni:—"The first mode of ingress is not so general among them because they are usually traitors, and although they come with the semblance of peace, they are afraid of the Missions, and dread being discovered, especially by the Pariagota, their enemies." De Tauste's book, published at Madrid in 1680, bears the title:—"Arte, y Bocabulario de la Lengva de los Indios Chaymas, Cymanagotos, Cores, Parias, y otros diversos de la Prouincia de Cymana, o Nueva Andalucia."

It may be that "Guayanos" was a name used to designate the tribe of Indians of the Carib race known otherwise as Pariagotos. At all events, the tradition passed on by Mr. Rodway's Arawak acquaintance appears to be well supported by the best authorities. We have now to enquire the meaning of the name "Guayana."

Varnhagen, the historian of Brazil, held that the great nation called "Tupi" or "Guarani," as it spread itself over that country, and thence into regions beyond, took various names, and that one of these was "Guayá," or "Guayá-ná," from which is derived the names "Guaiazes" and "Guaianzes," and the name "Guiana" came from the "Guaianzes" (misprint for "Guaianzes"?), who dwelt on the Orinoco. Varnhagen says the name means "gente estimada," or, as we might say, "the illustrious people," and is derived from "guaya," signifying "people," and "ná," meaning "estimado," "we the esteemed people" ("nóstrós os estimados"). As an alternative, he gives "guay" and "aná," people. He also says:—"Os senhores da Capitania de S. Vicente chamavam-se a si uns 'Guianás' . . ."

Von Martius prefers another interpretation. He thinks the name probably represents the Tupi "cua-apyaha," which he interprets as "men crowned with feathers."

The termination of the name "Guayana" is, apparently, as in the name "Wapisiana," from the Guarani word "aná," which means "a relation."

The meaning Tavera-Acosta gives to the word, as we have seen above, looks as though it might be connected with the Guarani word "güã," stain, painting, and would signify the painted people. Oviedo refers to some Aborigines who were known as "los Pintados," the painted people.

The Guarani "guãg" ornament, or "agüã" feather head-dress, probably represents the word Von Martius prefers. Perhaps the Guarani "cü," tongue, and "ai," had, might signify "foreigners," the people who could not talk properly—that is, not in our language.

But perhaps the name "Guayana" is "Kuwáiana," "the people of the palm-trees." In the language of the Macusi Indians the palm-tree "Mauritia flexuosa" is called "kuwái." Condreau gives "couaye" as its name in the Guayana or Roucouyenne language. Aublet writes of the same tree as "Le grand 'Ouá' des Caraïbes." It is the kind of name one finds among the Aborigines, as for instance, Im Thurn mentions "Awarakána," meaning "from the Awará palm," as the name of an Arawak family. Anyone who has seen the "ata" or "moriche" palms ("Mauritia flexuosa") grow in their native wilds will remember how prominent a feature of the landscape they constitute, and they abound in the country where the Guayanos or Pariagotos lived on the banks of the Orinoco. Im Thurn remarks:—"These level plains are made beautiful by groups and forests of ata palms ('Mauritia flexuosa') . . ." and Colonel Codazzi writes of "morichales," i.e. groups of these trees, as one of the features of the savannahs of the Caroni. Curiously enough, Peter Martyr (Edition of 1516) gives in his "Vocabula barbara" the following entry: "Gusfana: arbor est."

DEATHS.

The charge for the announcement of Births, Marriages and Deaths is 3/6 for three lines and 1/- for each additional line.

HOWELL-JONES.—On March 27th, after an operation, Mary, widow of the Hon. Benjamin Howell-Jones, C.M.G., of British Guiana, and of Aspley Heath, Woburn Sands, aged 66.

HARRISON.—On March 21st, 1922, at Malacca, Straits Settlements, John Harrison, M.D., beloved husband of Flora Harrison, and only and dearly-loved son of Sir John and Lady Harrison, of British Guiana.

BOYD.—On April 2nd, in Bridgetown, Barbados, Alice, the wife of W. A. Boyd, of Para, Brazil, late of Georgetown, Demerara. [By cable.]

JOHNSON.—On April 2nd, at the residence of his son and daughter-in-law, Keamore, Sidcup, Kent, Arthur Johnson, late of Farnham, Surrey, and of Gillespie Bros. & Co., Fenchurch Street, London, in his 70th year.

WANT.

GENTLEMAN recently arrived from West Indies open to appointment in England. Complete knowledge of West Indian trade generally, with good organising ability. All references.—Apply "E. E." c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, E.C.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

The Bahamas—New York Service.

Mr. Frank C. Munson, President of the Munson Line, which has recently started a contract service between Nassau and New York, on March 7th entertained the Governor, members of the Executive Council, the American Consul and others to luncheon on s.s. *Monargo*. Mr. Munson assured his hearers of his belief in the potentialities of Nassau as an incomparable winter resort.—The Revenue for the last quarter of 1921 was £128,173, surpassing all records. Of this amount, no less than £115,308 was provided by Customs duties. During the three months, expenditure only accounted for £79,149.—A successful Exhibition and Regatta, which were attended by the Governor, were held in Harbour Island on March 8th.—The *Guardian* calls attention to the unsanitary condition in which the Nassau market is habitually kept.

The Reaping Season In Barbados.

February's weather is described by the *Agricultural Reporter* as glorious. Very few dry days were noted and the month's rainfall was the best for some years. At the beginning of March, manuring the young crop was affording difficulty, many fields having to be completed with sheep manure. The reaping season had begun, but owing to the rains fuel economy was necessary.—Dr. Dalton has tendered to the Governing Body of Harrison College his resignation as Headmaster as from August 31st, after sixteen years' service in this post.—The *Lowell F. Parks*, a two-masted schooner bound for Newfoundland, foundered on February 23rd, off Speightstown, which port her Canadian crew were with difficulty able to reach.—In an interesting paper on the Mosaic disease, read before the Agricultural Society on February 24th, Mr. J. R. Bovell, Director of Agriculture, showed that the disease which had first made its appearance in a small area in the parish of St. Michael, had now spread to several parishes and was even attacking Indian corn and sour grass. In order to minimise the very serious effects the disease, whose infection spread by second and third ratons did even greater damage to crops than the primary infection, it was incumbent on planters to pull up and destroy all affected plants and select cuttings from healthy canes only.—In spite of their previous decision, the House of Assembly have now agreed to secure the services of an Income Tax expert, Mr. Rickman, in connection with local taxation.—The *Agricultural Reporter*, of 4th March, gives the following comparison of the 1920 and 1921 crops on various leading estates as far as available:—

	1920.		1921	
	Tons Crystals.	Tons Muscovado.	Tons Crystals.	Tons Muscovado.
Andrews	1,580	—	1,610	—
Applewhites	1,119	—	782	—
Carrington	—	—	1,101	—
Edgewood	1,471.5	—	788	—
Haggatts	—	—	1,068	—
Joss River	—	—	—	600
Vanlose	1,000	—	1,100	—
Kendal	—	760	—	423
Warrens	—	900	—	501
Mount Wilton	—	747	—	403.5
Guinea	512	—	358	—
Searles	2,789	—	1,770	—
Waterford	1,610	—	823.8	—
Sandy Lane	4,000	—	2,700	—
Lemon Harbour	—	1,612	—	1,000

Indian Delegation in British Guiana.

The Indian Colonisation Deputation visited Beterverwaging on February 27th, when a monster meeting of East Indians was held under the auspices of the Rice Growers' Association. Mr. Bissoonsingh, chairman of the local branch, presided, and Mr. Soodeo Patsand presented an address of welcome, to which Mr. Keatings replied in English, Mr. Tiwary in Hindi, and Mr. Pillai in Tamil. The representations of the meeting to the delegates included (according to the *Daily Chronicle*) a demand for the publication of the scheme outlined by Dr. Ninan in India; (2) the provision of waste savannah lands on the East Coast for agriculture and settlement; (3) better medical facilities; (4) reduced rates for return passages to India; (5) improved drainage and water supply.—A Canadian squadron, comprising the cruiser *Aurora* (Captain H. G. Adams) and the destroyers *Patriot* and *Patrician*, has been visiting Georgetown.—Mr. W. J. Ruatgever, assistant salesman to Messrs. Garnett & Co., has been appointed supervising manager of Messrs. Davson & Co.—The death is announced of Dr. J. M. Rohlehr, the son of an old Dutch planter and former manager of *Plm. Albion*. A special ordinance was passed in 1890 to enable Dr. Rohlehr (who had a Canadian degree) to practise in the Colony.

Sale of a British Honduras Estate.

In the event of the Honduras Trading Company not liquidating their debt of \$118,141 due to the Government by April 18th, the Governor has invited the Legislative Council to accept the offer of Mr. George Vipond, of Montreal, to purchase the Riversdale estate. Mr. Vipond has offered \$80,000 in four equal instalments, with an option for twelve months to buy Crown Lands within twenty miles of the estate at \$2 per acre.—A recent visitor to the Colony from Guatemala has been Colonel J. H. White, head of Yellow Fever Commission of the Rockefeller Foundation and Chief Adviser of the United States Government in quarantine matters. Colonel White, who was entertained by the Governor and the Medical Officers of the Colony, expressed the view that the coming summer will see Yellow Fever stamped out on the entire North American Continent.—In the interests of the sugar growers of Toledo and Corozal, who have recently found themselves unable to face the competition of imported sugar, a motion was introduced into the Legislative Council in favour of doubling the sugar duties, but meeting with opposition was withdrawn.—Under the caption "Our Local Poo-Bah," the *Clarion* calls attention to the fact that the Registrar-General (Hon. Herbert Dunk) is also acting as District Commissioner of Belize, and by virtue of these two offices he is also Census Enumerator, Official Receiver in Bankruptcy, and Official Administrator, while he holds in addition the offices of Controller of Enemy Property, Controller of the Local Clearing Office and Commissioner of Income Tax.

Grenada's British Population.

Out of Grenada's total population of 66,302, 99.9 per cent. are of British citizenship, acquired in one form or another. Of the 66 aliens, 19 are Americans, 13 French and 11 are Venezuelans, the majority of the last named residing in Carriacou. These facts appear from the census returns compiled by Mr. D. J. Garraway last year. English is the vernacular of the people, only 2.01 per cent. of whom speak patois, the prohibition of which in the Primary Schools has

caused its gradual extinction. Ninety-four persons are returned as speaking Hindi—about half of the number shown as having been born in India. About one-fourth of the population is directly engaged in cultivating the soil. Of the agricultural labourers the proportion of females to males is as 132 to 100. No fewer than 10,646, or a sixth of the entire population, are tabulated as "proprietors of land," showing the strength of the peasant proprietorship system in Grenada, and it is probable that the above figure by no means exhausts the number of actual landowners, many having chosen to denominate themselves under their other occupations, commercial or professional. The number of black persons to each white was 56.3, the ratio being highest in Carriacou and lowest in the rural district of St. George. In every 1,000 of the population, 5.6 will be found to be either blind, deaf and dumb, mentally deranged or afflicted with leprosy. The Roman Catholic religion has the greatest number of adherents, numbering 59.72 of the whole, Anglicans coming next with 33 per cent. Nearly a third of the population are given as illiterate, but this unduly large proportion has been swelled by the inclusion of children between five and nine years old, a large number of whom in the ordinary course cannot read or write.

The New Jamaica Tariff.

The revised Bill to amend the Customs Tariffs and give effect to the Canadian Trade Agreement of 1920 was read a second time on March 7th. Three of the elected members opposed the Bill chiefly on the ground that as it stood it had the effect of increasing taxation. A representative meeting of merchants, at which Mr. Simon Soutar presided, was held on March 10th to consider the Bill. Hon. H. A. L. Simpson, O.B.E., Mr. R. S. Gamble, Mr. W. Wilson, Mr. A. H. Da Costa, Mr. Horace Myers were amongst those who spoke criticizing various aspects of the Bill, a sub-committee being appointed to draw up a resolution on the subject.—At the annual meeting of the Jamaica Imperial Association, which was held on March 18th, with Mr. W. Baggett Gray in the chair, the state of Kingston and the need for its improvement called forth a vigorous protest. On the motion of Mr. D. O. Kelly-Lawson, it was agreed to recommend the imposition of a duty of 1d. per lb. on sugar to protect the home-grown article.—The Secretary of State's approval of the extension of the Government Railway from Chapelton to Frankfield having been obtained, the work is to be started shortly.—The delegation of Canadian business men, representing the Canadian Manufacturers Association, arrived on February 25th, sailing two days later. To welcome them, an "At Home" was given at King's House, by the Governor, and this was followed by a banquet and ball at Constant Spring Hotel. On the next day, the party was taken in motor cars to the new Gray's Inn Central, near Annotto Bay. At a crowded and enthusiastic meeting at the Institute of Jamaica, the lines on which trade between Canada and Jamaica might best develop were forcefully indicated by speakers representing local business interests.—The death is reported of Mr. Charles Arnold Malabre, one of Kingston's best known merchants and shipping agents.—Bathing in Kingston Harbour on March 14th, a 14 year old girl, Miss Lopez, had her leg bitten off by a shark, afterwards succumbing to her injuries.—A decided step towards the emancipation of women was taken in the Legislative Council on March 4th, when on the motion of Mr. Nash, a resolution approving of their admission to membership of the Parochial Boards and Kingston

Council, was carried.—Mr. William Morrison has been appointed a member of the Privy Council and nominated a member of the Legislative Council, the appointment giving great satisfaction. Mr. Ellis Levy has been made a J.P.—Mr. H. G. de Lisser, C.M.G., presiding at the annual meeting of the Institute of Jamaica, urged the need of greater support from public funds for the useful work of the Institute. Afterwards Mr. R. S. Biscoe delivered a lecture on Rural Jamaica.

The Montserrat Cotton Crops.

Mr. K. P. Penchoen writes under date March 13th. "Having had some rain at the end of February, cotton planting was started on the first of March (the earliest date allowed by law) and several of the larger estates have finished their first planting. With a continuance of present conditions the crop may be established in those districts now planted by the middle of April. Several bales of cotton have been sold locally of late and the s.s. *Counsellor*, now in port, is taking practically the last of the cotton crop, some 600 bales.—An effort is being made to allow cottonseed from here to be imported into Barbados, after being disinfected for pink bollworm.—His Honour C. F. Condell was entertained at dinner by officials, and his friends at Coconut Hill Hotel on the evening of the 11th. Major Peebles, who has come to act as Commissioner was also a guest. A most enjoyable evening was spent. Hon. W. H. Wilkins, senior unofficial member of the Executive Council, presided, and he proposed the toast of the evening. Mr. Condell replied in his usual felicitous style. Mr. S. W. Howes proposed the health of Major Peebles, and he replied: "We are losing a good Commissioner and a courteous gentleman, and many of us are deeply sorry to hear that Mr. Condell is not likely to return as our Commissioner."

St. Vincent's Small Cotton Yield.

For the current crop, it is estimated that only about 550 bales (of 360 lbs.) of Sea Island cotton will be reaped from 2,907 acres. This disappointing yield (for 1,453 acres planted in 1920 yielded 1,707 bales) is due to last autumn's hurricane.

Trinidad and the Royal Wedding.

Writing on March 11th, Mr. Hamlyn states that February 28th, was observed as a public holiday in honour of the marriage of Princess Mary, and, as it was also the second day of the local Carnival, the popular celebration was very hearty. The amount subscribed to the public fund to provide a wedding gift to be presented to Princess Mary on behalf of the Colony has exceeded \$3,000. At a meeting of the Legislative Council on Friday, March 3rd, the Governor read the congratulatory telegrams which had been sent to the King and Princess Mary on the occasion of the Royal Wedding and the replies which had been received.—In answer to questions by Hon. E. M. Lazare, the Government furnished statistics relating to the oil industry for the years 1919, 1920, and 1921, showing that there had been a steady increase in the output of crude oil, kerosene and gasoline, and also in the Government revenue derived from the royalties and other dues levied on the industry. The acting Attorney-General obtained leave to withdraw a Bill to amend the Industrial Training Ordinance, and undertook to introduce a Bill consolidating four existing Ordinances on the same subject, together with the proposed amendments. The Auditor-

General obtained leave to postpone until the next meeting the second reading of a Bill to amend the Agricultural Relief Ordinance because he had received two letters of protest against the proposed amendments which he had had no time to digest.—The White Star liner *Megantic* arrived from Jamaica on Monday, March 6th. A party of Canadian commercial men, representative of the Canadian Manufacturers' Association, came by her. The Trinidad Chamber of Commerce has arranged for them a programme of entertainment, including visits to points of interest in the Colony, and a special meeting of the Chamber to welcome them is to be held on Tuesday, March 14th. The *Megantic* also brought Mr. Charles Rickman, the income-tax expert, who has been assisting the Government of Jamaica to arrange their taxation, and has come here at the request of the Trinidad Government to render them a similar service. The Canadian Pacific steamer *Empress of Britain* paid a second visit to Port-of-Spain on Thursday, March 9th. Both she and the *Megantic* brought many more passengers than they did when they came here last month.—On March 6th the Governor laid the foundation-stone of the Sailors' and Soldiers' Club. The building occupies a first-rate site opposite the Queen's Park savannah, and is nearing completion.—The Governor has paid his first visit to Tobago, leaving Port-of-Spain on Tuesday, March 7th, returning on Thursday, March 9th, and travelling both ways on H.M. Canadian cruiser *Aurora*.—The appointment of Mr. F. J. McLeod as Resident Superintendent of the Lepet Settlement has not been confirmed by the Governor.—At a general meeting of the Agricultural Society on March 9th, Mr. Freeman, Director of Agriculture, read a paper on the establishment of a fruit industry in Trinidad and Tobago. On the motion of Mr. A. V. Stollmeyer a strong Permanent Fruit Committee was appointed.

MANDATED TERRITORIES.

Admitted to Preference Privileges.

An Order in Council dated the 6th of February, entitled "Imperial Preference Order No. 1 of 1922," brings within the definition of the British Empire, for the purpose of Section 8 of the Finance Act, 1919, which extends a preference in goods consigned from, and grown, produced or manufactured in the British Empire, the under-mentioned territories:—

- (a) The South-West Africa Territory (formerly German South-West Africa) exercised by the Government of the Union of South Africa;
- (b) The territory of New Guinea (i.e., the former German possessions in the Pacific Ocean situated south of the Equator other than German Samoa and Nauru) exercised by the Government of the Commonwealth of Australia; and
- (c) The territory of Western Samoa (formerly German Samoa) exercised by the Government of the Dominion of New Zealand.

It may be noted that the territories of South-West Africa, New Guinea, and Western Samoa all produce cacao, and that the quantity of that product entitled to preferential tariff treatment in the United Kingdom will thus be increased by approximately 6,800 to 7,000 tons.

WEST INDIES AT WESTMINSTER.

Jamaica's "Naval Dockyard."

Lieut.-Commander Kenworthy, R.N., in the debate on the Navy Estimates on March 24th protested vigorously against the maintenance of the naval dockyard at Jamaica, the dismantling of which he said would be a great proof of our sincerity when we said we wished to live on terms of naval friendliness and co-operation with the United States of America. Jamaica was so far inside America's sphere of shore action that in the event of war we could not hold the island, and money spent on it was therefore utterly wasted.

After continuing in this strain for some little time, the gallant and hon. member was somewhat taken aback when he was informed by Mr. Amery that the Jamaica naval dockyard was actually closed down in 1904, and all that was provided for in the estimates were oil tanks necessary for the replenishing of our Fleet in North American and West Indian waters.

[This reminds us of an episode which occurred some years ago in the Legislative Council of a Presidency of the Leeward Islands. On an estimate for the provision of a salary for a chain-man for the surveyor, an honourable member, in a lengthy speech denounced the local Government for introducing undesirable aliens, taking the bread out of the mouths of the labouring classes of the Colony, and so on, before his attention could be directed to the fact that it was a chain-man and not Chinaman who was to be introduced into the colony.—Ed.]

Mr. Amery, in reply to a subsequent question, informed Lieut.-Commander Kenworthy that the amount spent by the Admiralty in the Island of Jamaica in connection with oil-fuelling arrangements, and for other purposes, including the upkeep of the naval wireless telegraph station, was approximately £87,500, of which about £27,500 was in respect of the past year. The amount estimated to be spent in the present financial year was about £32,500, mainly capital expenditure in connection with the oil-fuel installation. Unless the naval wireless telegraph station was taken over by the Colonial Authorities, it would be reduced to care and maintenance party by the end of May.

Home-Grown Beet to pay no Excise.

In the House of Commons on March 30th Lieut.-Colonel Courthope (by private notice) asked the Minister of Agriculture whether the Government had yet come to a decision on the proposal, placed before the Chancellor of the Exchequer recently by a large and representative deputation, to grant a temporary remission of the excise duty on home-grown sugar in order to assist the establishment of the sugar-beet industry in this country?

The Minister of Agriculture (Sir Arthur Boscawen) replied: Yes, sir. The Government have decided that, in view of the exceptional circumstances of this new industry, and the condition of unemployment in this country, no excise duty should be charged on home-grown sugar, and the necessary provision for the removal of the existing duty will be made in the Finance Bill of this session. It is, of course, impossible to bind any future Government, but, in view of the fact that the remission of the excise is intended to assist a new industry during the experimental period, it may be hoped that Parliament would not re-impose

any excise duty until the industry has been firmly established.

Colonel Wedgwood: Have the right hon. gentleman's Liberal colleagues in the Government accepted this solution of the difficulty? Sir A. Boscawen: This is the decision of the Government.

Mr. Lyle-Samuel: May I ask when this decision was reached and when it became operative—whether it applies to this immediate financial year, or whether it will not become operative until a decision is reached by this House upon the proposals made in the Finance Bill for 1922-23?

Mr. N. Maclean: Have any conditions been laid upon the firms in this industry in this country that the difference caused by the remission of the excise duty is not going to be imposed upon the consumers in this country, and thereby give a larger profit to those concerned in the industry?

Sir A. Boscawen: There will be nothing imposed on the consumer. Unless this remission is made the industry will not proceed. That is the only point. No special conditions have been laid down. As to when the remission comes into operation, the announcement which is made to-day will enable growers to plant their beet, but, of course, it cannot actually come into operation until it has been enacted by this House.

Mr. Griffiths rose. Mr. Speaker: The answer to the last question makes it clear that a decision of this House will be necessary before anything can come into operation.

Mr. Griffiths: On a point of order. If the matter is not to be discussed until the Finance Bill is introduced, are not these people going to receive the benefit in anticipation of the decision of the House?

Mr. Speaker: That is really not a point of order. It is quite clear that the Government have announced what they will propose to the House, and that is all they can do.

Lt.-Col. James asked on April 5th whether one of the beet sugar factories now operating in England, which, having been in existence for over 10 years could be regarded as no longer in the experimental stage, the controlling interest and management was in the hands of Dutch capitalists. Major Barnston, replying for Sir Arthur Boscawen, stated that the factory referred to, that at Cantley, was still in its experimental stage. It had been built in 1912, had been closed during the war, and reopened in 1920. He understood that negotiations were now in progress for the amalgamation of the two factories under British control.

On the same day Lieut.-Colonel James asked the Chancellor of the Exchequer whether seeing that the proposed remission of Excise Duty on home-grown sugar would amount to a preference of £21 per ton in favour of English beet as against Colonial cane as the duties now stood and that the Budget statement had been anticipated as regards the Sugar Excise Duties, he could now make any statement as to assisting the Colonial cane-sugar industry by a reduction in the Customs duties or otherwise. Mr. Young replied: "The special circumstances which rendered necessary an immediate announcement on the subject of the Excise duty had already been indicated; he was unable to anticipate the Budget statement in other respects."

Mr. Macquisten: "Will the Minister take into consideration that unless some step is taken to protect West Indian sugar, the West Indies will be again reduced to destitution, and the whole machinery of the trade will be destroyed owing to American operations in Cuba?"

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

To the Editor of THE WEST INDIA COMMITTEE CIRCULAR.

Sir,—I am directed by the Chairman of our Provisional Committee, Sir George Le Hunte, to ask if you will kindly allow us to use the medium of your valuable journal to keep the people of the West Indies informed from time to time, of the progress of the West India Health and Welfare Society. Circulars detailing the objects of our Society have been sent to every West Indian Colony, and so far we have had encouraging replies from the Governors of Jamaica, Trinidad, British Honduras, and the Leeward Islands, the Administrators of St. Vincent, Dominica and St. Kitts-Nevis, the Commissioner of Turks and Caicos Islands, the Magistrate of Anguilla, and the Senior Medical Officers of Jamaica and the Bahamas.

Turks and Caicos have the distinction of being the first West Indian Colony to appoint a representative of our Committee in London, in the person of the Rev. A. H. Dolphin of the S.P.C. Our Bermuda correspondent has written that he hopes a branch may be started there, and it is possible a Jamaica branch will shortly be formed. The Hon. Mrs. Gideon Murray and Mrs. Minnett, M.D., have recently joined the Provisional Committee in London.

It cannot be made too clear, that we are out to encourage and support all the existing welfare societies in the West Indies with money and advice, if they will allow us to do so, when we are fully organised. The only condition we ask is, that these societies should become affiliated to our Society. This they can do, by sending delegates to a central council, where two or more societies exist in a colony, and let this council adopt our name and rules, and call themselves a branch of our Society. The organisation and rules of existing societies need not be interfered with. Under Health and Welfare are included Baby Saving Leagues, Tuberculosis Associations, Nursing Associations and Crèches, and all similar societies. Our Executive Committee, when appointed, will consist chiefly of doctors, specialists in Sanitary Science and Tropical Medicine, some West Indian ladies interested in the movement, and some trained nurses.

We do not wish to go on until we have authority from the people of the West Indies to act for them. We, therefore, have asked them to form a branch in each Colony, and appoint a representative on our Committee in London.

Our society has the support unofficially of the Colonial Office, The West India Committee, and the S.P.C., and is in touch with the British Red Cross Society, the Overseas Nursing Association, the London School of Tropical Medicine, the British Medical Association, and the Royal Colonial Institute. It is evident that if this Society is to succeed it must have the hearty support of the women of the West Indies of all classes, backed by the clergy and the doctors. We have provided the scheme for them to develop in their own way, if they wish to do it. Temporary financial depression should not prevent the formation of a branch in each colony, because the minimum subscription can be fixed locally to suit everybody's pocket.

G. B. MASON,

Hon. Sec.

W.I. Health and Welfare Society.

459, South Lambeth Road,
Clapham, S.W.5.

March 21st, 1922.

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.

Telegrams—
"Carib. London."



15, BERTHING LANE,
LONDON, E.C.3.
April 11th, 1922.

BANK RATE. 4½ per cent. as from February 16th.

EXCHANGE. Value of the £ Sterling.

	Mar. 28th		April 11th			Mar. 28th		April 11th	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
In U.S.A. ...	17 11 8	18 11	17 11 8	18 11	In Spain ...	1 1 4	1 2 6	1 1 4	1 2 6
.. France ...	1 18 8	1 18 0	1 18 0	1 18 0	.. Germany ...	72 9 0	64 8 0	72 9 0	64 8 0
.. Belgium ...	2 1 5	2 1 1	2 1 1	2 1 1	.. Austria ...	132 4 0	137 0 0	132 4 0	137 0 0
.. Italy ...	3 12 0	3 4 9	3 4 9	3 4 9	.. Holland ...	19 2	19 2	19 2	19 2

The intrinsic value of the gold sovereign is £1 2s.

SUGAR. Prices in the New York market have been inclined to ease during the fortnight, the value of duty-paid Cubans rising to 4.11 c.—equal to 2.50 c. c.i.f., and about 2.33 c. f.o.b. Sellers had, however, to give way at this point, and yesterday's quotation for duty-paid Cubans was 3.86 c., equivalent to 2.25 c.i.f. and 2.08 f.o.b. Futures quotations were: For May, July and September, 2.49 c., 2.68 c., and 2.86 c. respectively.

There have been some fluctuations in the home market, in sympathy with New York, but the fortnight has closed with firmer prices. Yesterday's quotations were:—London granulated 48/6, American granulated, spot 48/-; West Indian crystallised 42/6 to 44/-; white Mauritius, c.i.f., 23/-; preferential, 96 deg., c.i.f., 17/-, and foreign, 96 deg., 13s. 6d., c.i.f. Terminal market quotations were for May, July and September, 96 deg. sugar, 14/6; white sugar, 20/11, 20/24, and 20/34.

The receipts of new crop sugars at the Cuban shipping ports for the week ending March 18th amounted to 220,458 tons, which constitutes a record for the island. In addition, there were 14,892 tons of old crop sugars received, making the total arrivals for the week 235,350 tons. The exports also were very large, being 229,549 tons of old and new crop sugar. The shipments to Canada and Europe were 11,529 tons and 50,724 tons respectively.

The actual loss of sugar in Cuba due to the recent fires in the cane-field is estimated by Willett and Gray to be 15,000 tons.

Messrs. Willett and Gray's latest estimate of the 1921-22 world's crop is 16,607,560 tons, 15,897 tons in excess of the 1920-21 output. 11,597,060 tons are cane and 5,010,500 tons beet. If the Indian official estimate is realised, the production will be 390,000 tons in excess of Willett and Gray's figures.

The imports of sugar into British India for the nine months ending December, 1921, amounted to 528,650 tons, as against 181,068 tons for the same period in 1920. Java supplied 485,008 tons, and Mauritius 24,814 tons; 4,581 tons came from Belgium.

It is stated that a company has been formed in Holland, under the title of the International Sugar Company, having for its principal objects the acquiring and exploiting of sugar factories and trading in sugar. The capital of the company is 5,000,000 guilders, and the board of directors includes the manager of the German Disconto Gesellschaft. The 1921-22 crop of the Netherlands has concluded with the unexpectedly large output of 370,000 tons.

During January and February, the United States exported 127,720 tons of sugar, of which 37,350 tons went to the United Kingdom.

The West Indian sugar statistics in London on April 1st were:—

	1922.	1921.	1920.
Imports	6,758	7,065	11,381 Tons
Deliveries	8,280	11,676	8,225
Stock	3,164	3,593	11,292

RUM. On the fortnight rum has been very dull, and no sales have been reported either for home trade or export. Buyers are holding off until the introduction of the Budget, which is provisionally fixed for May 1st.

The stocks in London on April 1st were:—

	1922.	1921.	1920.
Jamaica ...	10,911	9,231	7,214 Puns.
Demerara ...	19,342	16,315	12,333
Total of all kinds	39,588	35,606	27,842

CACAO is rather quiet, with values for most descriptions tending lower. Fine Trinidad on the spot is in small supply and quoted nominally at 78/- to 75/-; to arrive is slow at 55/- to 60/-. Fine Grenada is selling slowly at 59/- to 60/-, but other West Indian is dull.

The stocks in London on April 1st were:—

	1922.	1921.	1920.
Trinidad ...	5,287	32,267	18,493 Bags.
Grenada ...	13,402	20,463	20,753
Total of all kinds	98,366	190,872	151,663

ARROWROOT. Only a retail business is passing, and prices are unchanged at: fair to good manufacturing, 8½d. to 4d., and good to fine grocery 4½d. to 8½d.

BALATA. continues dull. West Indian shot is quoted nominally at 3/2 per lb. spot; forward 2/11 c.i.f.

BAY OIL. The recent arrivals of bay oil have met with no demand.

COFFEE. Fine qualities continue to meet with a good demand, and prices are steady, but common sorts are slow of sale, with prices easier. Good to fine ordinary Jamaica is selling slowly at 65/- to 70/-, but Blue Mountain is nominal in the absence of supplies.

COPRA. The market is quiet, with West Indian f.m.s. valued at £25 10s. c.i.f. Holland, or £25 c.i.f. London.

COTTON. There has been a fair enquiry for West Indian Sea Island at unchanged prices: medium 28d., fine 8½d., and extra fine 40d.

HONEY is quiet, but steady. There has been a little more demand during the last few days for spot parcels, and Jamaica dark liquid is now quoted at 27/6 to 30/-, pale amber 40/- to 45/-, and fine pale, set, 60/- to 65/- per cwt.

LIME PRODUCTS. **Lime Oil.** Handpressed is attracting very little attention. Distilled is easier in consequence of heavy arrivals, and recent quotations are difficult to obtain. **Lime Juice.** Concentrated remains unchanged. The old stock of Raw of indifferent quality is neglected, but really good new juice is wanted.

LOGWOOD is unchanged. The last quotation was about 29 per ton spot.

ORANGE OIL. There are buyers of Jamaica Sweet at 10/- on the spot, but Bitter remains unchanged.

RUBBER has improved on the fortnight. Crepe and sheet are quoted at 8½d. spot. The total stock in London is 66,694 tons.

SPICES. The market for **Pimento** is very quiet, with sellers at 19/6 per cwt., c.i.f. Hamburg from Jamaica. Spot is dull and quoted at 2½d. per lb. There is very little enquiry for **Ginger** of low quality, but good to fine continues scarce. The market for **Nutmegs** is steady to dearer, with sound 65's quoted at 1/1 to 1/3. **Mace** is quiet, but steady. Fair to good pale is quoted at 1/7 to 1/9, and middling 1/4 to 1/6 per lb.

WEATHER TELEGRAMS.

Barbados (Messrs. Wilkinson & Gaviller), March 31st: "Fine rains generally throughout the island. Weather intensely hot, young crop very promising." **British Guiana:** **Burck** (Messrs. Henry K. Davson & Co.), April 5th: "Nice showers have fallen." **Demerara** (Messrs. Currie, Campbell & Co.), April 7th: "A few light showers have fallen, but more rain would be acceptable."

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.10). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
CENTRAL 6842.

Telegrams:
CARIB, LONDON.



15, SERKINGHAM LANE,
LONDON, E.C. 3.
April 25th, 1922.

TELEGRAPHIC COMMUNICATIONS.

OVER twenty months have elapsed since delegates representing the Dominion of Canada and the Greater British West Indies signed a memorable declaration appended to the Trade Agreement, in which they pledged themselves to recommend for the favourable consideration of their respective Governments that direct British-owned and British-controlled cables should be laid to connect Bermuda with Barbados, Trinidad, British Guiana, the Windward Islands, the Leeward Islands and Turks Islands, or Jamaica, without waiting for the termination of the agreement of

the West India and Panama Telegraph Company. Almost as many years have elapsed since The West India Committee put forward this self-same policy for the amelioration of the West Indian telegraphic situation. Owing, however, to financial stringency, effect has not yet been given to the proposals for laying the new cables, and there is a danger of the West Indies being caught napping and having no cut-and-dried scheme ready to put into force before the expiration of the present contract. The result of this would be disastrous, and it is earnestly to be hoped that, with the cost of cables and telegraphic material generally on the down grade, it may be possible to make definite arrangements for the extension of the cable from Bermuda to Barbados and Trinidad. Meanwhile, it would be folly to ignore the growing possibilities of wireless communication. It may be remembered that the Committee of the Imperial Communications Committee, which closely investigated the respective advantages of wireless and cables for the West Indies, reported adversely on wireless on the grounds that it would involve a heavy expenditure owing to the number of new stations which would have to be erected and to the necessity of maintaining a transmission and receiving station at Bermuda at the cost of the Colonies concerned; and that if was not strategically so advantageous as the cable system. This report was produced at a time when, curiously enough, several of the West Indian islands were entirely dependent on wireless for communication with one another and the outside world, a small station having been equipped in Barbados during the war by some youthful enthusiasts who had just left school, which maintained very effective connection with the Trinidad station during that difficult period. It must be recognised that the position of wireless as a means for commercial communication has undergone a remarkable transformation within the last few years, this development being due to the construction of more efficient apparatus and the employment of continuous electrical waves in the place of the earlier spark systems. Every day some fresh evidence of development in this connection is forthcoming. A station at Carnarvon recently transmitted a regular series of news messages direct to India and also to Australia for experimental purposes, and we are informed that these messages were received intact in each instance. There are now at least five commercial wireless services across the Atlantic linking the United States and Canada with Norway, Great Britain, Germany and France, while a further transatlantic route is under construction between the United States and Poland. In the

western world again, apart from the long-distance commercial services from Canadian and United States stations, the United States Government possesses a number of high-powered stations, several of which, including one at Porto Rico, can, it is said, be heard on even small acrials in England. Atmospheric disturbances which have hitherto been considered to be inimical to wireless operations in the West Indies, can now, as we pointed out last year, be eliminated to a very marked degree by the employment of up-to-date apparatus, and in any case these troubles are limited to a comparatively few hours in the early morning and late at night, at which time traffic in the West Indies would, presumably, be almost negligible. Concurrently with the development of wireless telegraphy must be noted that of wireless telephony. A concert given at Chelmsford has been heard by an audience in New York by means of wireless telephone. Again, it was recently demonstrated in England how a private individual sitting in his own home could call up the local telephone exchange, ask for Amsterdam, and converse freely with a friend there, the speech, or rather its electrical equivalent, being carried to the English coast on a trunk-wire, automatically across the North Sea by wireless and relayed into Amsterdam from the Dutch coast by a Dutch trunk-wire. Constant and uninterrupted conversation was thus maintained between England and Holland for many hours on end. In Holland itself, no fewer than 170 banks and persons interested in commerce are subscribing to a local circuit whereby the latest Stock Exchange prices are recorded at frequent intervals throughout the day by wireless telephony direct from the Amsterdam exchange. In view of the actual facts, no one could charge us with being over-sanguine in envisaging the day when West Indian islands and British Guiana and British Honduras will be similarly linked up by wireless telephony. Surely it would be worth almost any expense to secure for the British West Indies such facilities as wireless telegraphy and telephony offer, and we commend to the Governments concerned the desirability of their making the fullest possible inquiries as to the cost of wireless installations of both kinds, the establishment of which will be necessary to supplement the Bermuda-Barbados-Trinidad cable when it is laid in order to secure the linking up of the outlying islands. Apart altogether from this, one must consider the commercial advantages of reliable and uniform wireless installations which could pick up ships on their way to and from the Panama Canal, and the benefits which would accrue from an administrative point of view. These would be incalculable. In the new edition of their popular map of the West Indies which The West India Committee shortly propose to publish, it will be shown that in the West Indian Islands owned or more or less controlled by the United States, there are no fewer than twenty-two wireless stations, and it is lamentable to think that, as compared with these, there should be only eight in the British West Indian islands in the group.

THE TRADE POSITION.

AS will be seen by reference to the figures from the March Board of Trade Returns given in the Produce Market Summary there was no material change in the sugar position during the month as regards consumption, which, allowing for the additional number of days in the month, was much the same as in February. It is, however, extremely probable that expectation as to the reduction of the sugar duties in the Budget from their present high level may have caused retailers to restrict their buying, and that this, by reducing the amount of the invisible stocks, has caused the consumption to be less than was actually the case. Although there are indications in the Returns of increasing output from the home refineries, the month's deliveries being 76,977 tons and the three months' 225,250 tons, with stocks of home refined 27,950 tons, as against 17,900 tons in February, the position of supplies from this source is still unsatisfactory from the point of view of the consumer, who has to depend upon sugar from outside sources to make up the deficiency of home-refined sugar. As little or no sugar can be expected from the Continent between this and the end of the year, it is evident that considerable supplies will have to come from across the Atlantic. As regards rum, although the imports during the month were much less than in February, there was a further big reduction in consumption, in which, as with sugar, the Budget may have been a factor. One redeeming feature, however, was the increase in the amount of exports, which rose to 50,823 gallons during the month, making 114,939 gallons for the three months, a substantial improvement on the 65,725 gallons for the same period of last year. Although the cacao consumption for March was less than that for February, the quarter's figures show a gain on last year's January-March figures, and with the lowering in the price of chocolates which has recently taken place, this should be maintained. It is true that on account of the comparatively small quantity of cacao coming to the United Kingdom from the British West Indies the cacao producers are not directly affected to any great extent by the home consumption, but any increase in the world's consumption must necessarily be of advantage to them indirectly, and the question has been taken up by the Trade Commissioner for Canada, at Bristol. In the *Commercial Intelligence Journal* of the Department of Trade and Commerce, published at Ottawa, the Commissioner expresses the opinion that if the Canadian refiners would take up the actual export instead of selling through New York jobbers, they would get a much better price for their products. He, therefore, suggests that Canadian refiners should have their own brokers on this side, and make a business of utilising their large excess of refining power—at present equal to twice the Canadian consumption, by so doing. This excess is stated to be in the neighbourhood of 400,000 tons per annum.

SOME NOTES OF INTEREST.

"WHAT in you belly you own, but not what in you jaw."

* * *

In 1911, white sugars comprised 73.8 per cent. of the Mauritius production; in 1918, 82.60 per cent., and in 1920, 95.46 per cent.

* * *

It is officially estimated that the expenditure on the Colonial Office and the Colonial Service (excluding that allocated to the Middle East) in 1922-1923 will be £2,124,882, as compared with £814,864 in 1913-1914.

* * *

As the *Louisiana Planter* points out, the law is always at the heels of that pretender to the sugar throne, saccharin. Regulations have just been formulated in Spain to the effect that no drug store is to stock more than 4 kilos (8.8 lbs.)

* * *

THE amount of revenue yielded by the Gold Coast Cacao Export Tax since its inception in 1915 to the end of August last year has been £1,776,000. In 1916 the rate of duty was £2 6s. 8d. per ton, but since 1919 this figure has been doubled.

* * *

THE Canadian Government announces that the coming into force of the provision in the Customs Tariff requiring the marking of the country of origin on goods imported into Canada has been postponed until after the close of the next session of the Canadian Parliament.

* * *

THE Cuban-Dominican Sugar Company has been formed to take over two factories in Cuba and three in San Domingo. The Cuban output of the company will be about 41,700 tons and the San Domingan about 80,000 tons for the current crop, to be increased to 120,000 in the season of 1923-1924.

* * *

SIR JOHN HARRISON is still in the nursing home at Tunbridge Wells, but he is now able to get up for a little every day, and is making satisfactory, though slow, progress towards recovery. Lady Harrison and her son-in-law and daughter, Mr. and Mrs. Harold Frere, are also in the Kentish health resort, where they expect to remain until June.

* * *

MOLASSES from cane sugar is of great value for feeding pigs. In the *dolce far niente* days of British Guiana sugar, when managers frequently cultivated pigs on their own account in addition to canes for their proprietor, considerable quantities of molasses used to travel from the curing-house of the sugar factory to the pig-sty. As the result, estates' pork was held in high esteem.

* * *

A CORRESPONDENT writes that the term "molasses" should not be applied to Barbados fancy syrups. Molasses, he says, is the mother liquor left after crystallisation of the sugar, and which is separated by draining or centrifugals. In

Barbados fancy syrups there has been no crystallisation, and therefore there is no molasses. The proper term is "fancy syrups," and not "fancy molasses."

* * *

THE sport of trap-shooting has lately become increasingly popular in the Bermudas, and the Bermuda Gun Club of Hamilton, which was organised about two years ago by Captain C. F. Leighton, hope to hold a big trap-shooting tournament in April under the auspices of the American Trap-shooting Association. Hinson's island, one of the 805 islands forming the group, has been selected as the venue for the shoot.

* * *

THE Jamaica correspondent of *The Times*, in a message published on April 21st, reports that at a conference of the Parochial Boards Association it was unanimously resolved to urge Mr. Churchill to recall the Governor, Sir Leslie Probyn, for alleged mismanagement of the Colony's affairs. One of the elected members of the Legislative Council has intimated his intention to propose a resolution of a similar nature in the Council.

* * *

THE death in Trinidad of Mr. Chaudharja Lala at the age of eighty-four is recorded by the *East Indian Patriot*. Mr. Lala arrived in the colony as an indentured immigrant in 1860, and served his term on Verdant Vale cacao estate. He then became a landed proprietor and resided in Arima. Converted to the Christian faith by the late Dr. John Morton, he became Canadian Mission Catechist in that town, where he was greatly respected.

* * *

THE valuation for Customs purposes of cacao imported into the United Kingdom in 1921 was:—

	Per cwt.
	£ s. d.
British West Africa	2 3 0
British West Indies	3 2 7
Ecuador	3 1 7
Brazil	2 15 0
Ceylon	4 11 2

* * *

THE Honolulu correspondent of *Facts About Sugar*, under date February 27th, says that the annual reports of the sugar plantations have revealed that Hawaii's main industry suffered a loss last year of several million dollars, owing to the combined factors of labour shortage and the low price of sugar. On the Waialea plantation, one of the largest in Hawaii, the cost of production was \$96.83 per short ton, and the average sale price \$74.92.

* * *

THE Hon. William Morrison, who has been nominated a member of the Legislative Council and appointed a member of the Privy Council of Jamaica, is best known to West Indians as a cricket enthusiast, being President of the Kingston Cricket Club. By profession he is a solicitor, having been admitted to practice in 1899, and he holds many important positions in the island. He is the son of the late Mr. William Morrison, journalist and poet, a greatly respected member of the community.

DR. J. FOREMAN, late Medical Officer in St. Kitts, who, after sampling the English climate, has returned to that island, tells us that the campaign against yaws in his former district has been most successfully conducted by his successor, Dr. Burton, with the result that this disease is now seldom seen at Sandy Point. Dr. Foreman generously adds that Dr. Burton's method is better than his, the injections now being given intravenously, whilst he was making them intramuscularly.

* * *

ABOUT 50,000 farmers are employed in the cultivation of sugar beets in the United States, owning 5,000,000 acres, which they devote to general farming, of which the raising of beets is a part. There are 106 beet factories, in which \$150,000,000 are invested, and which employ 35,000 hands. The output is about 800,000 tons of refined sugar. According to the *Louisiana Planter*, the by-products of the beet industry would fatten 750,000 "beef" cattle, and supply the greater ration of 350,000 milk cows.

* * *

THE rarest postage stamp in the world, the "one cent 1856 British Guiana," was sold on April 6th for £6,250. This philatelic curiosity, a description of which appeared in the CIRCULAR of March 4th, 1920, is believed to be the sole surviving specimen of an emergency issue prepared by a local firm of printers in Georgetown. After changing hands for a few shillings in 1878, it found its way into the Ferrary collection in Paris, which, being sequestered as enemy property during the war, has now been put up to auction for the benefit of the Reparations account.

* * *

THE Port of London Authority state that from April 10th reductions were made in their dock and warehouse dues, rates and charges, which, it will be recalled, were the subject of representations recently on the part of The West India Committee (see CIRCULAR for March 16th, page 119). A reduction of $7\frac{1}{2}$ points is announced in the landing and extra charges in the case of imported goods, and in the charges in the case of exports, bringing the "percentage addition" in each case down to 92½ per cent. In "additional rent" there is a decrease of 15 points, reducing it to 85 per cent.

* * *

ANOTHER use for molasses which is attracting attention is the production of compressed yeast. The value of yeast in bread-making is well known, but the main destination of the compressed yeast is cattle food, for which it is admirably suited. Its analysis shows that it contains over 50 per cent. of protein, upwards of 95 per cent. of which is directly digestible, besides 80 per cent. of non-nitrogenous matter which is wholly digestible. The ash also contains high proportions of potassium and phosphoric acid. One pound of compressed yeast is stated to have as great a food value as 3.3 pounds of meat. Details of the manufacture of compressed yeast are given in the *Louisiana Planter* of February 4th, and there is more on the subject in the April 1st issue.

THE United States beet sugar industry is at a disadvantage compared with the best Continental beet industries in that both the yield of beet per acre and the amount of sugar extracted from the roots is considerably lower. In the United States the average yield of roots per acre for the five crops 1916-17 to 1920-21 was 8.46 long tons, and the amount of direct consumption sugar extracted from them 18.41 per cent. In Germany, for the crops 1914-15 to 1918-19, 10.18 tons of roots were obtained per acre on the average, with an extraction of 15.96 per cent. of raw sugar. In Austria-Hungary, the average yield of beets for the crops 1908-1909 to 1912-13 was 9.94 tons per acre, from which an average extraction of 15.40 per cent. of raw sugar was obtained, and in Holland for the five crops 1909-10 to 1913-14 an average of 11.03 tons of roots per acre were reaped, which yielded 15.11 per cent. of raw sugar.

* * *

WE are apt to pride ourselves on modern agriculture and the application of modern science to it, and are apt to forget that in many respects we are as babes compared with the agriculturists of old. As Mr. Kirby recently stated in a lecture at Newcastle, the ancient lands of Babylon gave a yield of corn 200 times greater than the amount of corn sown, as against an average yield of 12 times in England. This was due to a great extent to the sagacity of Hammurabi, the great Babylonian king, who put into force, nearly 4,000 years ago, a code of laws providing for the forfeiture of land in the case of neglect, and for penalties for improper cultivation. Farming in Great Britain, Mr. Kirby said, was tied hand and foot by a system of rotation of crops which was introduced 200 years ago, and he said that by more intensive cultivation the land could be made to produce double what it does at present. It is sorely needed.

* * *

THE projected removal of the Excise duty on sugar produced in the United Kingdom calls attention to the fact that in the method employed to determine the amount, there is still a relic of the old Brussels Convention. It will be remembered that in this Agreement, the parties to it were allowed a maximum surtax—that is to say, a maximum difference between the Customs duty and the Excise tax—of 6 francs per 100 kilos, which, at the then value of the franc, represented between $\frac{2}{4}$ and $\frac{2}{5}$ per cwt. The preferential rate for colonial sugar is, in the existing tariff, five-sixths of the full rate, and in calculating the Excise duty, the old Brussels Convention surtax is blended with the modern Imperial Preference rate by the amount being arrived at by deducting the $\frac{2}{4}$ from the full import duty and taking five-sixths of the remainder as representing the Excise. Thus the duty on foreign sugar of over 98 deg. polarisation is $\frac{25}{8}$ per cwt., and the Excise tax is five-sixths of $\frac{23}{4}$, or $\frac{19}{5}\frac{1}{2}$.

CASSAVA PONE.—To $\frac{1}{4}$ lb. of lard add $\frac{1}{4}$ lb. of butter, 1 lb. of sugar, 1 large coco-nut grated, 4 beaten eggs, and 1 lb. of cassava flour. Throw the mixture into a dripping pan and bake.

CACAO AND THE PREFERENCE.

Optional Bills of Lading.

The following correspondence has passed between The West India Committee and the Custom House with regard to the refusal of the Board of Customs to admit at preferential rates British West Indian cacao imported into Great Britain on optional bills of lading, which give the option of landing the cacao at specified continental ports and/or the United Kingdom. It will be noticed that as a result of the Committee's representations the Board of Customs have made a small concession as regards their interpretation of the Finance Act in this connection. It is to be presumed that the principle now recognised will also apply to all dutiable products—for example, coffee.

The West India Committee.

March 31st, 1922.

Sir,—We desire to bring before your notice a matter concerning the British West Indian cacao industry in relation to the Customs tariff of the United Kingdom.

2. The action of His Majesty's Government in according to British produced cacao a tariff preference amounting to one-sixth off the duty, is, we need hardly state, greatly appreciated; but this concession is less effective than it should be owing to the following circumstances.

3. It has for many years past been the custom of merchants to ship cacao from the British West Indies on "Optional Bills of Lading," which give the shippers the option of having it delivered at ports on the continent and/or the United Kingdom, this option being exercised after the shipment of the produce, in accordance with the market conditions or requirements after the date of sailing. This system has proved of great advantage to the shippers, enabling them, as it has done, to take the fullest advantage of market requirements.

4. We understand, however, that it has been held by the Commissioners of Customs, that British cacao shipped on an Optional Bill of Lading is not regarded as "consigned from" the British Empire, within the meaning of Section 8 (1) of the Finance Act, 1919. This decision, we regret to state, is having a very damaging effect on the trade.

5. We should point out that British cacao shipped from the British West Indies on Optional Bills of Lading is largely carried in British bottoms, and that it could not therefore be said that the British shipping industry is prejudiced by this system.

6. In considering the question, it must be borne in mind that the British colonies produce far more cacao than can be consumed in the United Kingdom, the figures for 1921 showing a production of approximately 3,500,000 cwt. within the British Empire, against a consumption of 920,000 cwt. in Great Britain and Ireland. This being the case, it is of the utmost importance that the fullest advantage should be taken of continental as well as British markets for cacao. To this end progressive British merchants have developed a selling organisation in many European countries, the success of whose operations depends largely on the maintenance of the system of Optional Bills of Lading. The British merchants cannot bring their cacao to London direct and distribute it there to the continent, since they would then incur heavy landing and warehouse charges in the United Kingdom, and would consequently be unable to compete with foreign merchants, who would purchase their

cocoa direct from the producers. Moreover, in the case of France, cocoa transhipped in the United Kingdom would be subjected to the French surtax.

7. The exclusion of British cacao shipped from British colonies on Optional Bills of Lading in accordance with the custom of the trade of many years standing is, for the reasons set out above, a very real disability and one which is seriously handicapping and curtailing the business of British traders.

8. We beg, therefore, respectfully to urge that if in the opinion of the Law Officers of the Crown, cacao shipped from British colonies on Optional Bills of Lading, and cacao so shipped landed at a port on the continent and transhipped thence to the United Kingdom, cannot, as the law now stands, be admitted to preferential treatment, the Commissioners of Customs may recommend to the Right Honourable the Chancellor of the Exchequer that provision may be made in the forthcoming Finance Bill for remedying this disability in cases where proof is forthcoming to show that the cacao has not been taken out of bond on the continent and that its British origin is beyond question.

We have the honour, etc.,

(Sgd.) R. RUTHERFORD, *Chairman.*

ALGERNON ASPINALL, *Secretary.*

Sir,—In reply to your letter of the 1st ultimo, No. 7990, referring to consignments of Cacao imported from the West Indies on Optional Bills of Lading, I am directed by the Commissioners of Customs and Excise to acquaint you that they have been in communication with other Government Departments concerned in regard to this matter, and special consideration has been given to all aspects of the question.

Having regard to the terms of Section 8 (1) of the Finance Act, 1919, it has been decided that it is possible to allow preference in cases where Empire goods are imported from a part of the Empire in the ship in which they were loaded at the Empire port of lading whether the ship comes (a) direct, or (b) via a foreign port, provided that in the latter case the goods have not been removed from the ship.

In addition to these classes of cases, Empire goods on through bills of lading will, as heretofore, subject to the conditions set out in paragraph 13 of Notice No. 27 A (copy annexed), be eligible for admission at preferential rates of duty.

I am, Sir, (Sgd.) JOHN L. MACKIE.

The following is the text of the paragraph in Notice No. 27A (Notice to Importers) alluded to in the concluding paragraph above:—

In the case of Empire goods consigned to the United Kingdom which have been transhipped en route, or have been shipped from a foreign port after overland transit from the Empire country of origin, the importer at the time of making entry will be required to produce the through bill of lading or railway consignment note from the country of production to the United Kingdom in support of the certificate of origin. Where a through bill of lading or consignment note is not available, the invoice, local bill of lading, or consignment note from the original point of origin and certificate of arrival or landing at, and exportation from, the port of transhipment will be required. Such certificates are to be signed by the proper Colonial or Foreign Customs Officer at the port of transhipment, and in the case of the latter the signature must be visaed by the British Consular Authority. It is essential to prove that the goods were consigned from a part of the Empire to the United Kingdom, and not to a foreign country from which they were subsequently reconsigned to the United Kingdom.

CACAO PRODUCTS DEFINED.

IN THE WEST INDIA COMMITTEE CIRCULAR of March 30th a definition of chocolate in its various forms was given. Through the courtesy of Messrs. Rowntree & Co., Ltd., it is now possible to supplement that information with a specification of various cacao products as known to the trade, which may be set out as follows:—

1.—*The Cacao Nib* consists of the natural broken segments of the roasted cocoa bean after the shell has been removed.

2.—The nib is ground into what is known either as *Cocoa Mass*, or *Cocoa Pure*. It forms a paste which solidifies on cooling to a chocolate-coloured block. It may be used for the production of either cocoa or chocolate.

3.—When the hot cocoa mass is subjected to pressure in hydraulic presses, much of the cocoa butter is expressed, and the resulting cake, when broken up and sifted, is known as *Cocoa Essence*. It still contains 25 per cent. of cocoa butter.

4.—*Cocoa Butter* is the aromatic vegetable fat of the cocoa bean. Cocoa mass contains 54-55 per cent. of this vegetable fat.

Varieties of chocolate that are recognised on the market have been tentatively defined by the American Joint Committee (Association of American Dairy, Food and Drug Officials; the Association of Official Agricultural Chemists, and the U.S. Department of Agriculture) as follows:—

1.—Cacao beans, cocoa beans, are the seeds of the cacao tree (*Theobroma Cacao L.*).

2.—Cocoa nibs, cracked cocoa, is the roasted, broken cacao bean, freed as far as is practicable from cacao shell or husk.

3.—Chocolate, plain chocolate, bitter chocolate, chocolate liquors, chocolate paste, bitter chocolate coating, is the solid or plastic mass obtained by grinding cacao nibs without the removal of fat or other constituents except the germ, and contains not less than 50 per cent. cacao fat and, on the moisture and fat-free basis, not more than eight and five-tenths per cent. total ash, not more than four-tenths per cent. ash insoluble in hydrochloric acid, not more than five and six-tenths per cent. ash soluble in water, not more than seven per cent. crude fibre, not more than four per cent. cacao shell.

Sweet chocolate, sweet chocolate coating, is chocolate mixed with sugar (sucrose), with or without the addition of cocoa butter, spices, or other flavouring materials, and contains, on the moisture, sugar and fat-free basis, no higher percentage of total ash, ash insoluble in hydrochloric acid, ash insoluble in water, crude fibre, or cacao shell, respectively, than is found in chocolate.

No definition of chocolate has been adopted by the Ministry of Health, nor has any definition been adopted by British chocolate manufacturers.

"If hon. members tread on the corns of officials, they are placing themselves in a hornet's nest." So spoke a much respected member of an Island Legislature, according to a contemporary.

NEW MAP OF THE WEST INDIES.

A new and revised edition of The West India Committee's map of the West Indies will shortly be published. Since this popular map was first issued in 1914 the Dutch West Indian islands have passed under the United States flag, a fresh census has been taken of the British West Indies, British Guiana and British Honduras, and several new wireless stations have been established. These details have all received attention in revising the map, and several features have been introduced which should add greatly to the usefulness of this publication.

To begin with, more trade-route distances are now marked, and for the purpose of comparison an inset of Wales drawn to the same scale as that of the general map is given, and, as indicating the thoroughness with which the work has been revised, it may be mentioned that the new cattle-trail from the Rupununi Savannah to Demerara and Berbice, in British Guiana, is now identified, and inset maps of the larger British West Indian islands and groups of islands are included.

As before, no attempt has been made to give the physiographical features of the individual islands, this being impracticable in view of the relative size of most of the islands to the mainland, but the principal railways, sea distances, in nautical miles, cables, wireless stations and oil stations are all clearly marked.

On the earlier map many encomiums were lavished, one firm, with headquarters in America—where good cartography is appreciated—writing, "It is by far the best map of the West Indies."

The map of the West Indies is coloured, and will be obtainable in sheet form, mounted and folded, or varnished and mounted on rollers, at the following prices:—

Sheet	7/6	Post free	8/6
Mounted and folded	15/-		15/6
Mounted on cloth and varnished, with rollers			12/6
Carriage free (inland)	14/-	abroad according to destination.	

It should be noted that on account of the cost of carriage it is not possible to send the map mounted on rollers abroad, except by special arrangement.

The following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :—

"The Manufacture of Cane Sugar," by Jones and Seard; 26/-.

"The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/-.

"Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.

"The Cane Sugar Factory," by F. I. Seard; 3/-.

"The Pocket Guide to the West Indies"; 7/6.

"West Indian Tales of Old," by Algernon Aspinall; 8/-.

"The British West Indies," by Algernon Aspinall; 9/6.

"Historic Jamaica," by Frank C. Cundall; 8/-.

"A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6. These prices include postage.

CONCENTRATED LIME JUICE.

Its Present Position and Prospects.

BY CHARLES HOWE.

The present deep depression through which the lime industry is passing is, no doubt, causing great anxiety amongst planters concerned with this fruit, whose main source of income has been diminishing for so long. The position, however, is not altogether hopeless, as the writer will endeavour to show, and the following remarks from the market may prove interesting, if not altogether convincing.

There has been a good deal of discussion regarding the prospects of the manufacture of citric acid in the West Indies as a remedy for the present stagnation, but the real solution does not appear to lie in this direction. Economy is the keynote to success in any industry, and it cannot be considered economical for prospective competitors for the citric acid market to build their factory in a part of the world which is by no means an ideal distributing centre, and where large quantities of material indispensable to the process of manufacture have to be imported, to say nothing of the oft-required renewals to plant and machinery.

If other manufacturers had no advantages in these respects compared with the West Indies, then the idea would be worth serious consideration; but it must be remembered that there are distinct advantages in favour of European manufacturers as to raw material, fuel, machinery and distribution which will be readily recognised.

In addition to this, the following factors must not be disregarded by intending competitors of the European manufacturers:—

(1) The vast experience of the European manufacturers, which enables them to reduce their manufacturing costs to a minimum, and

(2) The preference commanded by English-made citric acid, which forces even Continental makers to undersell it.

To remedy the complaint, therefore, would it not be better to study the cause and the chances of its removal rather than to administer very costly restoratives without a reasonable hope of success?

The most apparent cause of trade depression uppermost in everybody's mind to-day is the inability of certain large consuming countries to buy foreign goods on account of the enormous depreciation in the value of their currencies, and it is obvious that any improvement in the value of the currency of a country where citric acid, concentrated lime juice, or citrate of lime are required has an effect on the value of those commodities. Again it will be seen that any improvement in the value of the currency of a country that competes with the West Indies in producing these articles for export will also increase their value.

It is the Italian exchange which mostly affects West Indian citrate and concentrated lime juice because it is from Sicily that citric acid manufacturers draw their main supplies, and it is encouraging to note that this exchange has remained fairly steady in spite of serious internal troubles.

It has recovered from well over 100 lire to the present value of about 82 lire to the pound, and this most certainly points to an industrial recovery which, it is to be hoped, will further strengthen the lire. The German, Austrian, and French exchanges affect citrus products, because each of these countries is a manufacturer and consumer of citric acid, besides Central Europe being large customers of our textile trades, in which concentrated lime juice and citric acid are employed. Russia, in normal times, is also a large buyer of citric acid and textiles, whilst the unsettled condition of India has deprived us of valuable support for the textile trades.

Although Sicily's heavy stock of citrate will undoubtedly prevent for some time a return to the high prices enjoyed of recent years, there is, nevertheless, a better demand now for citric acid than we have experienced for many months. This demand is not yet sufficient to effect an immediate improvement in the raw material, but this acid must use up some citrate of lime and/or concentrated lime juice, and those who control the Sicilian supplies will not be acting up to their traditions if they neglect to take advantage of an increased demand. Planters should bear in mind also that freights have been considerably reduced and dock charges are now 85 to 95 per cent. over pre-war rates, against 150 per cent. not so long ago.

It may be assumed, therefore, that we have passed through the worst, and the West Indian planter who wishes to watch for the improvement—which, of necessity, must be extremely slow—may be assisted by the foregoing remarks.

MR. ADAM CLAYTON SMITH, son of the late Mr. Adam Smith, C.M.G., has been appointed hon. secretary of the Trinidad Chamber of Commerce, in succession to Mr. Alexander Rae.

MR. EDWARD WOOD, M.P., Mr. Ormsby Gore, M.P., and Mr. R. A. Wiseman will be the guests of The West Indian Club at a dinner on May 4th.

The report on the sugar cane experiments carried out in the Leeward Islands, under the supervision of the Imperial Department of Agriculture, for the season 1919-20, deals, as in the case of the previous reports, with (1) experiments with varieties of sugar cane, and (2) manual experiments with sugar cane. On account, however, of the lack of supplies of manures and the difficulty of obtaining the essential ones, it was found impossible to carry out the detailed manual schemes previously in operation.

As regards Antigua, the first place among variety canes was again occupied by B.6508, a position which it has held for seven years, the average return being 23.05 tons of canes per acre, with a total sucrose yield of 5,190 lbs. of sucrose, and a sucrose proportion of 2.16 lbs. per gallon. In St. Kitts, the premier position was occupied by B.H.10(12) with a mean return of 26.9 tons of cane and 6,597 lbs. of sucrose per acre. The sucrose content of the juice was 2.30 lbs. per gallon. The cultivation of this variety was stated to be increasing in the island.

KINGSTON HARBOUR TRAGEDY.

Miss Lopez's Assailant Captured.

Further particulars regarding the tragic death, at the age of fourteen, of Miss Adeline Lopez, eldest daughter of Mr. and Mrs. Manly Lopez, and granddaughter of Mr. Thomas Abrahams, J.P., of Chapelton, Jamaica, through the bite of a shark, are given in *The Gleaner* of Jamaica. It seems that Miss Lopez was bathing in the harbour at about five o'clock in the evening of March 13th with a young friend, Tom Bray, son of Mr. Bray, of the Texas Oil Company, in front of her father's residence, "Arran," in Sea Shore Gardens, when Mr. Lopez heard piercing screams. Realising that his daughter must be in distress, he rushed down to the beach, and, lifting her from the water, was horrified to find that her right leg had gone. Dr. Levy was hastily summoned to the scene, and he was followed by Drs. Allwood and Gogahen, who performed an operation; but Miss Lopez only survived for 48 hours, after which she succumbed to her terrible injuries.

The appearance of a "tiger" shark in Kingston Harbour is believed to be almost without precedent. An eye-witness, writing to *The Gleaner*, declared that he and others sighted the shark close to the wharf after the attack had been made, and so the water about the pier was baited. Later the shark returned and made for the bait, when Mr. G. Abrahams drew a bead on the monster with a high-powered rifle and pulled the trigger as the shark opened its mouth to devour the bait; but unfortunately his rifle misfired.

Mr. Mitchell-Hedges, the well-known deep-sea fisherman, who was staying at Black River, on being interviewed said that he had warned people that a disaster of this kind must happen sooner or later, and added that if what he suspected had entered the harbour, bathing was out of the question, and that not even a dug-out would be safe now that fresh blood had been tasted.

Though on the point of leaving for Panama, he generously consented to remain and endeavour to catch the man-eater. The dénouement came on March 19th, when by his skilful efforts he succeeded in landing a huge shark near the very spot where the tragedy of the preceding Monday had occurred. The news spread like wildfire throughout the town, and *The Gleaner* estimates that no fewer than "ten thousand persons gathered around Sea Shore Gardens and blocked up the eastern end of Harbour Street," eager to know if it were true.

Mr. Mitchell-Hedges' method of procedure was as follows. He laid down five big buoys, consisting of gasoline drums, round a certain area, attaching to them 75 yards of Manila rope and steel chains with immense hooks baited with five-pound fishes and two dead dogs. It would appear that the shark took the bait some time during Saturday night, and spent most of his energy tossing about with the hook in the jaw, and impeded by the floating drum. On Sunday morning, at about 9 o'clock, it was observed that one of the drums was shaking, and on a careful survey it was seen that something had taken the bait within a few yards of the spot

where Miss Adeline Lopez had been bitten. Mr. Mitchell-Hedges was hurriedly telephoned for, and with the Harbour Master, Lieutenant Owen, was soon on the scene. The Harbour Master was just in time to prevent a rifle being used to shoot at the monster, which, Mr. Hedges thought, might have had the effect of causing the shark to plunge and break away with the hook. When he got alongside the little pier, the monster gave a huge convulsive snap of the jaw, and it buckled the great steel hook, which showed what a great pressure must have been brought to bear on it. Mr. Hedges then seized the tail of the shark, and ropes were got around it, and about ten men dragged it ashore.

The shark, which was found to contain three young, was subsequently presented to *The Gleaner*, at whose premises it was shown to the public, and the receipts for admission are to be devoted to the erection of a memorial to the victim of the tragedy.

Mr. and Mrs. Manly Lopez have been the recipients of many expressions of condolence, with which the CIRCULAR wishes to identify itself, at the sad loss which they have sustained under such tragic circumstances.

GIANT FISH OF THE CARIBBEAN.

The following letter from Mr. C. H. Fraser, of Black River, Jamaica, appeared in the *Daily Telegraph* recently:—

Having read the accounts in the Press of Great Britain and America preceding and subsequent to the departure of Mr. F. A. Mitchell-Hedges, F.I.S., F.R.G.S., the explorer, hunter, and big game fisherman, who left England last September in an endeavour to ascertain in the interest of sport and science what giant fish and marine life exist in the virtually unknown waters of the Caribbean and Pacific, and also to attempt to elucidate much of the mystery of the ancient Aztec civilisation, I feel it will be of public interest to inform you that I have just returned after having witnessed Mr. Mitchell-Hedges' operations in the Caribbean.

I have been interested in the big fish and marine life of tropical waters all my life, but anything I had imagined has been far surpassed. In one instance a link in the evolutionary chain has come to light which will be another revelation to scientists. On another occasion it took the entire strength of ten of the natives to drag a leviathan ashore. Unquestionably, during the Jurassic period great beasts roamed the earth, and it would seem that, with climatic conditions and the advent of man, their extinction became complete. Do great fish and mammals of this age still remain in the vast waters of the Caribbean, Pacific, and Atlantic? Incredible as it may seem, it would appear so, judging by the fact that the monster which was washed ashore at Cape May in November last (the photographs of which appeared extensively in the Press) measured no less than 78 feet in length and weighed fifteen tons, which is nearly the size of five full-grown elephants. The extraordinary similarity to reptile, mammal, and bird life exhibited by many of the fish I have seen brought ashore collectively forges still further links in the chain of evolution (now almost universally accepted by scientists), which will be plainly discernible when the remarkable photographs taken by Mr. Mitchell-Hedges are published upon his return.

"MANI"—WHAT IS IT?

"Mani" is the name given by the Caribs of Dominica to a bituminous substance which has for generations been thrown up on the windward coast of that island in the neighbourhood of their settlement at Salybia. Probably the name is a corruption of "manjak" though, since the nature of the material is not known, some student of the history of the wanderings of the Israelites may have called it after "manna," in spite of the fact it is not good to eat.

An eminent authority on all that concerns Dominica writes that this "Mani" is of a black colour and has the appearance and properties of pitch. From time immemorial the Caribs have used it—as Raleigh, in 1595, used the pitch at the place "called by the naturals Piché, and by the Spaniards Tierra de Brea," at Trinidad, for caulking their ships. It is found adhering to the rocks, from which it is then scraped.

The question arises, is this bituminous substance ejected from some submarine vent, or is it carried by the currents of the sea from Trinidad or elsewhere? Against the latter theory is the fact that the "Mani" is not found all along the windward coast, but only in a certain section of it. Our informant therefore inclines to the belief that it is of submarine origin, and, consequently, that borings judiciously made on the windward coast of Dominica might result in a strike of mineral oil. On the other hand, some scientists have asserted that the "Mani" is of volcanic origin, though a geologist who recently visited Dominica stated that there could not possibly be oil there owing to the volcanic origin of the island.

"Powellising" is a new process invented by the late Mr. William Powell for the preserving and seasoning of wood by means of sugar.

The wood is treated in open tanks in which it is exposed to the sugar solution. The temperature of the latter is then raised, and while this is going on the sap in the wood is expelled and its place taken by the sugar solution; the exchange mainly occurring when the solution is allowed to cool. As the hot solution reaches the exterior of the wood, it is stated that any remaining albuminoids are coagu-

SOME TRINIDAD GUSHERS.

Encouraging Reports from Oilfields.

Interest in the Trinidad Oilfields has been stimulated this year by the news of several gushers having been struck. Three months ago the Trinidad Lake Petroleum Company brought in another very good well in Lot 4, which has already produced over 110,000 barrels of oil, and was reported at the end of February to be still flowing at the rate of 500 barrels a day.

The Kern River Oilfields, according to advices received on February 14th and March 8th, brought in well No. 15 on Perseverance Estate at 1,260 ft. with a gusher which was out of control for 24 hours, the estimated production being 10,000 barrels per day. After yielding this quantity of oil for two days, the well sanded up, the derrick and casing being damaged, but according to advices received subsequently, the damage was repaired and the well was flowing at the rate of 1,200 barrels per day at a pressure of 400 lbs. per square inch.

At about the same time a well was brought in by the General Petroleum Company of Trinidad at 1,456 feet, and after gushing 10,000 barrels per day was brought in under full control. It is now capped and is awaiting construction of a pipeline. Our illustration on this page is from a photograph taken by Mr. H. Huber of this gusher on February 26th.



A recent Trinidad Gusher

This well of the General Petroleum Co., of Trinidad, Ltd., was brought in at 1456 ft. and yielded 10,000 barrels a day.

(Continued from the preceding column.)

lated and fungoid germs and insect pupæ killed. In fact, the wood is sterilised. Including subsequent drying, if required, the process takes about three weeks.

Wood thus Powellised may be laid down without drying, as in the case of sleepers. For building purposes, internal work, furniture, painting and varnishing, it must be thoroughly dried, which can be done in a short time either in the open air or by kilns. The process has now stood the test of some years with most satisfactory results as regards all descriptions of wood used for commercial purposes. It is proposed to use molasses as a source of the sugar solution.

TRINIDAD INCOME TAX.

Mr. Rickman Interviewed.

In view of the introduction into the Trinidad Legislative Council of an Income Tax Bill, which is designed to form a permanent income tax measure, an interview given to the *Trinidad Guardian* by Mr. Rickman, the English Revenue official who was seconded from Jamaica to assist in its compilation, is of especial interest.

Mr. Rickman started by comparing the rate of taxation in the proposed ordinance with that imposed in England. The result is shown in the following table:—

Amount of Income	Local Flat Rate in the £	English Flat Rate in the £
£1,000	3d	4/-
£2,000	7d	4/9
£3,000	1/1	5/6
£4,000	1/3	6/6
£5,000	1/6	7/-
£6,000	1/10	7/6
£7,000	2/2	8/-
£10,000	2/11	9/-

Continuing, Mr. Rickman said that the only way in which the Government could collect revenue equitably was on income earned in the Colony, as it was the only means of direct taxation which would touch incomes that were not reached by indirect or general taxation. He estimated that about 3,000 persons in the Colony had incomes between £300 and £1,000. In Jamaica, 4,553 had incomes between £150 and £400. As regards the liability to double taxation in Trinidad and the United Kingdom, Mr. Rickman said:—

“No single Colony can pretend to solve the question. Each Colony might have ideas of its own and might pass legislation differing from each other in the method of dealing with this point. In consequence, the Secretary of State has sent a general Income Tax clause to the Colonies on the question. This clause was contained in the Amending Bill No. 40 of 1921, and Section 20 of the proposed Bill was but a repetition of it. I think,” he added, “it would be inadvisable for any single Colony to attempt to effect any change now there was an Inter-Departmental Committee sitting in England on the whole question, on which I was invited to attend. It would hamper the ultimate rectification of this point. In the case of companies, however, I think a solution may be found as follows: The company or business could be charged in the United Kingdom as a bank on the total profits made, including those of its branches in the Colonies. The Government could then make a separate assessment and apportion the profits made by the various branches. Then up to one-half of the English rate of tax let the English Government hand over to the Colonial branches for taxation on the local rates. This would be in fact dealing with the matter in the same manner that the Railway Clearing House in Great Britain deals with through railway fares extending over more than one railway system. The passenger would pay his fare for the through

journey run. The Railway Clearing House took the passenger's fare and apportioned it between the railways over which the journey is taken in accordance with the mileage travelled on each. However, I do not think the Colony should attempt to remove the present double taxation on incomes with the necessity for repayment until the Inter-Departmental Committee reports.”

The liability of agents of non-resident shipping companies to payment of the tax based on 5 per cent. of outgoing shipment when they are not in a position to give the actual profits of the company was discussed, also the penalty or seizure of the agents' goods was next tackled. Mr. Rickman said the Government propose to remove from agents of non-resident shipping companies the liability for payment of Income Tax. In continuing, he said, “In practically every Colony, owing to the insurmountable difficulty of arriving at the actual profits on the freight and passengers taken from the Colony, a percentage basis has been adopted as being the least troublesome to all concerned. Although in the new section the percentage is increased from 5 to 10, as a matter of fact the actual amount of Income Tax to be paid by the agent has been materially reduced. Under the old section (7) of Ordinance 54 of 1920, the Income Tax payable by the company was 5 per cent. of the passenger fares and goods outward bound from the Colony. For example, a shipping company which took a total amount of £10,000 for passenger fares and freight outward bound from this Colony would pay £500 as Income Tax. Under the new law, the assessable income of the company would be 10 per cent. of the amount, i.e. £1,000, and the agent would only have to pay Income Tax on that amount which, worked out at the present scale of 6d. in the £ would bring but £25 of Income Tax to the Government.”

ADDRESSING a meeting of his constituents at Harrogate on March 25th, Hon. Edward Wood, M.P., referred at some length to his visit to the West Indies, and stated that on his return he felt it his duty to seek an audience of the King to assure him of the great loyalty of the people of these distant colonies. It made him feel proud of his connection with the British Empire, for which he had been privileged to be on that occasion an Ambassador. He hoped it would be possible for the Government to come in some degree to the economical help of these countries, the hopes of which were very much in one basket in these difficult days. He suggested that the ladies had it in their power to help one of those countries—Dominica. The root reason why we in this country were so silly as to use lemons when limes had so many advantages, was that practically every recipe in a cookery book said: “Take a fresh lemon.” He asked the ladies to use their efforts to endeavour to correct that advice by substituting “Take a fresh lime.” If they did that they would be materially helping Dominica.

MR. CHARLES HOWE has now assumed his duties with the firm of Messrs. Paines & Reid, West India produce brokers, of Fenchurch Street, E.C.

THE ANTI-SACCHARISTS.

A Curious Sect of 1792-1820.

"*flier, Aujourd'hui, Demain,*" a bi-monthly magazine published in France, bears evidence of being edited by a devotee of the god of sweetness, for it frequently contains reference historical and otherwise to sugar. In its February issue it gives an interesting resumé of the history of the sugar abstinence in England. It seems that the "anti-saccharists" constituted a regular sect between the years 1792 and 1820, when they formed the subject of many lampoons and caricatures. They refused to touch sugar in any form, this act of abnegation being a protest against slavery. Our contemporary publishes a conversation recorded in an old work on London in which a sugar user argues with an "anti-saccharist," reminding him of the sweat with which the European peasant waters the corn to make bread for the protector of the slaves, and asks, "What will become of the planters of Jamaica and the other West Indian islands?" if the use of sugar is given up—to which the reply is given, "That is a secondary consideration in the eye of philosophy. What does it matter what happens to a few whites as long as the dear blacks are freed?"

Only recently Mr. Thackeray kindly presented to The West India Committee (which must not be suspected of having any leanings towards the iniquitous system of slavery) a quaint advertisement of free-grown sugar, which, no doubt, enjoyed much vogue among abolitionists. It reads as follows:—

JAMES HEYWOOD respectfully informs his friends and the public, that he has opened a Warehouse at No. 17, Great East Cheap, for the sale of East India Sugar, the produce of Free Labour, where they may now be supplied with that article genuine, and of various qualities, both Raw and Refined. Any orders with which he may be favoured will be carefully and punctually executed on very moderate terms for ready money, and Families accommodated with any quantity they wish, where the original package of 106 pounds weight is considered as too large. The East India refined Sugar in Lumps and Leaves is now ready for delivery, of good and fine qualities, and at a reduction of nearly 2d. per lb. on the first experiments made.

Purchase will be made for the Trade at a Charge of 1 per Cent. Commission, and that part of the Trade in the Country, who have not yet turned their attention to encourage the use of Sugar, the produce of Free Labour, will please give J. Heywood early information of their having introduced the sale of it, (that any subsequent applications made to him (by Families on the spot) may be handed in course to their address.

We the undersigned, feel much pleasure in recommending James Heywood to the notice of the Friends of Humanity, as a person, who in our opinion, may be fully relied upon for supplying Sugars, the produce of Free Labour, unmixed with that obtained by the labour of slaves; and from his known habits of punctuality and attention to business, we have no doubt that all orders addressed to him will be promptly attended to.

This interesting document bears the following signatures:—

GEORGE HARRISON
WILLIAM ALLEN
WILLIAM FORSTER REYNOLDS
SAMUEL GURNEY
T. FURLEY FORSTER
WILLIAM CRAWFORD

JOHN ELIOT
THOS. CHRISTY
EDWD. CARROLL
ROY. FORSTER
W. S. HATHAWAY.

THE TRINIDAD SUGAR INDUSTRY.

The *St. Madeleine Quarterly Review* gives the following details regarding the Trinidad Sugar Industry:—

The portion of Trinidad in which the Sugar Industry lies extends roughly from Port-of-Spain in the North to the Oropouche Lagoon in the South, and from the sea on the East to approximately a third of the distance across the Island. The area included within these boundaries is by no means entirely devoted to sugar cane cultivation, much of it being taken up by cocoa, coconuts, and abandoned lands. It is, however, within these limits that practically all the cane is handled.

There are sixteen sugar factories in the Island. Of these Malgretout, of some 4,000 tons capacity, does not now operate, and the canes are sent for grinding to the Usine Ste. Madeleine; also Mon Desir, a small Muscovado plant, has made its last crop, we believe. These factories may be divided into three groups, viz., the Northern, Central, and Southern, as follows:—

Factory.	NORTHERN.		Av. Output for last 10 Years in tons Sugar.
	Proprietors.		
Oroni ...	Trinidad Estates Ltd., Glasgow ...		1955
Orange Grove...	West Indian Trustees Ltd., London		3310
Golden Grove...	M. J. de Silva, Trinidad		485
CENTRAL.			
Waterloo ...	Kleinwort Sons & Co., London		6440
Woodford Lodge	Woodford Lodge Estates Ltd., London		2242
Esperanza ...	F. Roos ...		2340
Brechin Castle	Trinidad Estates Ltd., Glasgow		3633
Fortea Park ...	R. & J. Henderson, Trinidad		1670
SOUTHERN.			
Usine Ste. Madeleine	Ste. Madeleine Sugar Co., Ltd., London		16,654
Malgretout ...	do. do.		† 3,313
La Fortunée ...	F. Roos ...		3,879
Bronté ...	Gordon, Grant & Co., Ltd., Trinidad		3,422
Craignish ...	Geo. Liddelow & others, Trinidad		801
Hindustan ...	A. Lawrie, Trinidad		894
Reform ...	W. Sanderson, Trinidad		846
Mon Desir ...	Trinidad Leaseholds Ltd., London		† 161
* 4 Years average.		† 5 Years average.	‡ 8 Years average.

THE HON. AUCHER WARNER, K.C., Attorney-General of Trinidad and Tobago, and Mrs. Warner, have arrived in England.

SIR EDWARD DAVSON returned from Demerara in s.s. *Stuyvesant*, and the CIRCULAR takes this opportunity of congratulating him upon the birth of a son and heir, a happy event which took place on March 18th.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

Alcohol equal to 600,000 bottles of whisky was used in making bottled total sweetened beverages in the United Kingdom in 1921.

* * *

A malformation of cotton, of which the cause is obscure, is present in almost all parts of Western India. The trouble exists in various forms, and has the effect of lowering the yield in various ways. American and Egyptian cottons are stated to be free from the disease, which attacks severely some of the native varieties. Plants attacked show a marked change in root development.

* * *

The juice of the Palmyra Palm (*Borassus flabelliformis*), from which sugar is made in India, is obtained from the young inflorescence. In the case of the date palm (*Phoenix Sylvestris*), another source of sugar, the juice is derived from tapping the stem just below the crown of the leaves. The sugar content of the Palmyra palm juice is about 14 per cent., and of the date palm juice 11 per cent.

* * *

Mr. W. V. Tower, in the *Porto Rico Station Reports*, gives an account of observations on the citrus scab (*Cladosporium citro*) on that island conducted in a grove in which the trees had received different applications of fertilisers. The trouble noticed appeared to have arisen from excessive applications of nitrogen, the trees thus being rendered susceptible to disease by reason of their rapid growth.

* * *

Experiments have been conducted in Georgia having for their object the destruction of the cotton-ball weevil by dusting with calcium arsenate. The arsenate was used at the rate of five pounds per acre, application being made by means of horse-drawn motors. Admixture of the calcium arsenate with lime was also tried, and zinc arsenate used instead of calcium arsenate. The results are said to have been satisfactory in practically all the tests.

* * *

Some time ago the Agricultural Experiment Station in Cuba discovered that the Royal Palms in one of the districts of the island were being attacked by a small hemipterous insect, which did great damage to the leaves. Specimens were sent to the Bureau of Entomology of the United States Department of Agriculture, and the decision was arrived at that the insect was not only a new species, but that it belonged to a new genus and sub-family. It has been named *Xylostodorus luteolus*, Barber.

* * *

In a recent discussion on genetics at the Royal Society of Arts one of the speakers stated that he had been experimenting on the subject of vitamins, and found that they had a most marked effect on the prolificness of animals. In

the case of a herd of white pedigree pigs, the average litter, with ordinary feeding, numbered seven, but after feeding with three vitamins the litters had attained such a size that he felt it unwise to proceed further, nineteens and twenties, and even twenty-ones being quite common.

* * *

Among the important trees of Cuba, says the *Cuba Review*, is the ramon (*Trophis racemosa*). It is not a timber tree of great importance, but it has long been recognised as a valuable source of fodder for cattle, horses and sheep during the dry season of the year, when other fodder is scarce, the twigs and leaves being especially appreciated by them. Bees resort to the blossoms in swarms for the sake of the sweet liquor they contain, and the fruit, which is the size of a large cherry, is eaten greedily by man and beast, especially pigs.

* * *

Ninety per cent. of talc mined is used in the manufacture of paper, moulded rubber goods, and foundry facings, only the higher grades being employed for toilet preparations and medicinal preparations. Important uses also of ground talc of good grade are in the manufacture of french chalk, soap, and as a "filler" in the manufacture of certain classes of linen and cotton fabrics. It is also a constituent of waterproof paints and wall plasters. Talc is chemically a hydrated silicate of magnesium, and is known as steatite or soapstone. Valuable properties are that it is not acted upon by ordinary acids and is a bad conductor of heat and electricity.

* * *

Chemistry and physics, said Mr. Julian S. Huxley, in a lecture recently delivered before the Royal Society of Arts, are the agencies by which we obtain control over our lifeless environment, biology, in its widest sense, being the agency by which we obtain control over life, our own included. There are many signs, the lecturer went on to say, that the older divisions of biology are melting away. Physiologists are turning more and more towards the lower animals; zoologists are supplementing the methods of comparative anatomy by those of physiology; geneticists are uniting both botany and zoology in their single science. Everything, said Mr. Huxley, points to a re-integration of pure biology.

* * *

Menthol crystal is one of the products of Japan, the use of which is constantly increasing. It is a residue from the refining of the oil distilled from a variety of peppermint, and is produced mainly in the northern island of Hokkaido, where the mint crop is a favourite one for farmers on account of the distilling work it furnishes during the long winters. The crystal finds its chief market in America, while the peppermint-oil is sold mostly in England, before the war its principal market being Germany. The 1920 production consisted of 265,000 pounds of the crystal, and about the same of the oil, much less than the output of 1917, which was 566,328 pounds of crystal and 569,475 pounds of oil.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 173.)

Mr. Dunlop advocated the formation of a local Department of Agriculture, the extension of the sugar industry at Punta Gorda and Corosal, and the development of food production and other forms of agriculture, with the object of redeeming the Colony from its dependence on forest products. So far, however, nothing has come of these practical suggestions, there being, as usual, no funds available; but even if there were, it would not be wise to bank too much on agriculture for British Honduras. The Colony originated as a settlement of wood-cutters, and timber is still, and must remain, its foremost industry.

Hitherto, British Honduras has been, in a sense, living on its capital, since thousands of millions of cubic feet of timber have been cut out of its forests without any organised system of replanting being conducted. Already the more valuable trees in proximity to the rivers have been felled, thus necessitating operations farther afield. This wasteful policy is, however, to be checked, for in 1920 Mr. C. Hummel, a fully-trained Forestry Officer, formerly employed by the Forestry Department of the Federated Malay States, went out to British Honduras to investigate and report on the local forest resources. He has since been appointed Conservator of Forests, and it is confidently expected that as the result of his recommendations something will be left in the interior of the Colony, after all, for posterity. During the war British Honduras mahogany was largely used in the manufacture of propellers for our aircraft, and with the development of civil aviation, it is reasonable to suppose that a constant demand for this valuable timber, which is not excelled in any other part of the world, will be witnessed.

Talking of timber, reference must be made to a remarkable contract which was made in September, 1904, whereby the local Government agreed to sell the pine trees on the Crown lands throughout British Honduras to Mr. B. Chipley, a citizen of the United States, at the nominal price of one cent per tree. In making this agreement, the Government no doubt believed that the contractor, in order to get at the trees, would open up the interior of the Colony with roads and traces, and that trade generally would be stimulated. Mr. Chipley, however, failed to avail himself of this opportunity of acquiring timber at such a favourable price, and the Consolidated Naval Stores Company, of New York, to which his rights under the contract have passed, have similarly held off; and as the agreement expires in 1980, it is improbable that it will be taken advantage of. It should be mentioned that the British Honduras pine is the *pinus cubensis*, which though not so valuable as the American pine tree, has been very favourably reported upon.

The forests of the Colony also contain great numbers of the prolific cohune palm (*attalea cohune*), which yield an excessively hard nut containing a rich and valuable oil. Prospectors and

capitalists have been nibbling at this nut for years, but so far have failed to make up their minds whether the nut-cracking apparatus should be taken to the nuts or the nuts to the apparatus.

A forest industry of importance second only to that of mahogany-cutting is the collection of chicle, a substance that is bled from Sapodilla trees by labourers rejoicing in the name of Chicleros, and forms the basis of chewing-gum of commerce, eventually finding its way to the under side of tables and chairs in America after its purchasers have absorbed the digestible ingredients with which it is prepared.

The question of opening up the interior of British Honduras has hitherto proved as difficult and complex a problem as that of the development of the hinterland of British Guiana. As far back as the eighties of last century, proposals were under discussion for the construction of a railway from Belize to the Guatemala frontier, and thence to Peten and Guatemala City, the basis of discussion being a grant of land to a depth of three miles on either side of the line, making 384,000 acres in all, to contractors, subject to their giving, in turn, free grants of alternate blocks to actual settlers, and offering the rest of the land for sale in the open market. The estimated length of the line was to have been 100 miles, and the capital expenditure £500,000. Nothing came of these proposals at the time, but in 1901 the railway question was reopened. In that year the local Legislature sanctioned the payment of £60,000 and a grant of 350,000 acres for the construction of a railway to the frontier. The Colonial Office sent out surveyors, who reported that the cost of making the line would be £735,000, and as the Secretary of State insisted that six-sevenths of this sum should be banked before construction was started, and that no Colonial expenditure should be made without its sanction, these proposals also fell through. The scheme was then modified, the grant being increased to £75,000 and the land grant reduced to 200,000 acres, on which terms a well-known firm of railway contractors expressed their willingness to undertake the work.

This scheme was vetoed by the Colonial Office in 1905, and the local Legislature, still determined to have a railway, agreed to pay £3,500 per annum for ten years for a line to the frontier; but this also was turned down by the Colonial Office, which was nervous, fearing that if the railway did not prove to be a financial success it would be thrown on the hands of the Government. Discussion now followed discussion, and after this long period of labour, the Government eventually gave birth to the quite inadequate Stann Creek Railway scheme in 1909. This line, starting from a pier at Commerce Bight, near Stann Creek, runs into the interior for a distance of twenty-five miles, at the end of which it comes to a dead stop, with no prospect of extension. The intention was to open up a valuable agricultural district, and bananas were extensively planted. At first they gave great promise, but then they were attacked by Panama Disease, and now the railway, which had cost, down to December 31st, £165,000 to build, has

practically no traffic, and can only be regarded as a dismal failure.

That night was the hottest we had yet experienced, and when Easter Monday dawned the waters of the roadstead were unruffled by the slightest breeze. Every breath of air one inhaled felt as if it came out of a furnace, and a light haze over the town betokened greater heat later on. When we landed again it was sweltering, but this did not prevent our passing a most interesting day.

Shortly after noon, Mr. G. F. Mapp took me for a run up the river in a motor-launch, and showed me something of the Belize end of the mahogany industry. For several miles the banks on either side are densely clothed with depressing mangrove trees except here and there where clearings have been made for mahogany depots.

The principal firms engaged in the mahogany trade have their headquarters in Belize, and the procedure adopted by them is briefly as follows:—To begin with, they engage the services of an expert woodman, called locally a "hunter" or "timber cruiser," who wanders about the forests and locates and marks suitable trees within easy reach of the rivers. A track is then cut through the forest to the tree selected, and the wood-cutters proceed with their work. The tree, having been lopped and cleaned-up, is trucked, or hauled by oxen to the river-side, this being usually done at night by torchlight, out of consideration for the beasts, which would suffer during the heat of the day. The logs are then allowed to lie at the river-side until the rainy season, and the rivers are sufficiently full to enable the mahogany to be floated, or "driven," as it is called, down to the mouth, where the logs are boomed or fastened together by "dogs" until they are hauled out to be trimmed or squared up ready for shipment.

One learnt with regret that the Americans get the pick of the timber, since they send agents to purchase it on the spot—a form of enterprise which has not yet been emulated by British timber merchants, owing, no doubt, mainly to the absence of direct steamship communication.

Mahogany is used for all kinds of purposes in British Honduras, just as marble is by the Italians in the Carrara district or granite by the Ticinesi peasants, and it was astonishing to see a sawmill made entirely out of this valuable red wood, which is reserved for pianos, sideboards, book-cases, and similar articles of furniture at home.

In the afternoon we experienced what is known in the Colony, as it is in the Bahamas and Jamaica, as a "Norther," a chilly wind from the north, which sent the thermometer down with a rush from the 90's to the lower 70's in the Fahrenheit scale, and lashed the water of the roadstead into angry waves. This sudden change of temperature added greatly to the comfort of the teams of the *Calcutta* and the Sussex Regiment, which met in friendly combat on the football ground just outside the town. Since 1919, after one of those insensate riots which only bring punishment to the ringleaders, increased taxation, and a set-back in prosperity, a half-company of the Sussex Regiment had been stationed in Belize. They were quartered at the St. James's Barracks, just to the north of the town, hemmed

in between the sea and a mangrove swamp, in a row of hutments raised on piles. These were the historical barracks which were once upon a time so infected with mosquitoes that the men, to escape attack, used to immerse themselves up to their necks in the sea, and pray for the morning; but much has been done to clean up Belize since those days, and Dr. James Cran, V.D., O.B.E., deservedly one of the most popular residents in the Colony, was able to boast that although he had resided in it for more than a quarter of a century, he had never suffered from fever.

One of the Barrack buildings was used as a Country Club, which encourages golf, lawn tennis, and polo, and lavishes a kindly hospitality on visitors. Later in the day there were meetings of the British Honduras Contingent Society, when Corporal Haynes, on behalf of the Officers, N.C.O.'s and men of the 1st and 2nd Honduras Contingents who gallantly volunteered and went over to Europe during the war, read an address in appreciation of the work of the West Indian Contingent Committee. Most of the Honduras Contingents served in Mesopotamia with the Inland Water Transport, a circumstance due to the fact that some members of the first draft sent there proved such excellent watermen that the "brass-hats" thought that all men from British Honduras must be similarly gifted.

This meeting was followed immediately afterwards by one of the local Chamber of Commerce, when impressive and patriotic speeches were delivered by the Hon. Sydney Cuthbert, the Hon. G. E. Grabham and others, among the members present being the Hon. A. R. Usher, M.B.E., and Capt. H. Melhado; and the day was brought to a close by a dinner-party at Government House, which gave me the opportunity of meeting many of the prominent officials and residents.

During the evening more speeches were delivered, and many encouraging remarks were made regarding the future of British Honduras, which would never be for a moment in doubt if only money were forthcoming for development, and a system of immigration could be established. Though rather larger than Wales, the colony has a population of one-quarter only of that of Croydon, and it is obvious that until this state of affairs can be remedied no satisfactory development of agriculture, on the lines suggested by Mr. Dunlop, can have any chance of real success.

In recent years there have been indications of a greater interest being shown by Downing Street in British Honduras; but much leeway in this connection has still to be made up, and it is deplorable that the colony should still be largely dependent upon foreign steamship companies for communication with the outside world, and that it should have no efficient wireless system. Meanwhile, Sir Eyre Hutson is in the unenviable position of being compelled to make bricks without straw, and though there is no mistaking his enthusiasm and the earnestness of his desire to develop the colony, he must be to a great extent powerless to effect this purpose until the purse-strings of capitalists are loosened—which can never be until the door is opened by Downing Street.

(To be continued.)

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Bahamas—The Nassau Fire.

Further particulars are now to hand in the *Nassau Guardian* of the fire which destroyed the Colonial Hotel on March 31st at the end of the most successful season in the history of the colony. The outbreak, the origin of which cannot be accounted for, was discovered at 5.35 a.m. in the laundry. The police, City Brigade, and Western Brigade engines were soon on the spot, but their efforts had shortly to be confined to saving as far as possible the surrounding buildings, no fewer than twelve of which were ablaze. The wind fortunately was light and in a favourable direction, fanning the flames away from the town. By dint of dynamiting (under the direction of Mr. Sloan Danaulower) the eastern range of the fort—the business portion of the City—which was in imminent danger, was saved. At the first alarm, the guests in the hotel were aroused, and not one casualty is reported, very few of the visitors even losing any of their luggage. Many were leaving on that day by s.s. *Mimargo*, and the rest were accommodated at the Hotel Royal Victoria, which had closed at the end of the season. The total loss is estimated at £250,000, the greater part of which is thought to be covered by insurance. Mr. W. J. Greene,

trustee Board, in the absence of Captain Kenneth Solomon.

A controversy which has for some time been stirring the Anglican community has resulted in the institution of a civil suit against the Bishop of Nassau and certain of the clergy to decide the question whether church buildings in Nassau are absolutely the property of the Church or are subject to the restrictive conditions of a special trust.



The calamitous fire at Nassau

The photographs from which this striking illustration is reproduced were taken by Mr. Armbrister.

Barbados' Satisfactory Crop Results.

Mr. J. H. Wilkinson, writing on April 5th, reported reaping as in full swing, and in most parishes the tonnage of canes to the acre was better than had been estimated, but unfortunately the price of sugar was low, the value of dark crystals being \$2.75 per 100 lbs. There was very little enquiry for Choice Molasses, and only a small quantity had been sold on a basis of 15 cents per gallon. The young crops throughout the Island were looking splendid and were all well established.

The weather during March was favourable, the early part of the month being dry, but the heavy showers later relieving the situation. The full results, says the *Advocate*, of two years' shortage of rainfall, are now being felt, many factories being without water.—The House of Assembly has had before it the estimates for the year. Expenditure is put down at £360,494, and revenue at £318,350. To meet this deficiency, it is proposed to increase the duties on articles other than necessaries by 20 per cent., which,

it is hoped, will yield £20,000.—The party of Canadian manufacturers arrived at Bridgetown on March 26th, and were entertained at the Savannah Club on the following day by Mr. E. H. S. Flood, the Canadian



The destruction of the Hotel Colonial, Nassau

This palatial building was completely destroyed by fire on March 31st, as recorded on this page.

manager of the Colonial Hotel, has received messages of sympathy and offers of help from Trinidad, Jamaica, and Bermuda.—Miss Mary Moseley, M.B.E., has been appointed a member of the Develop-

Commissioner, a dinner being given in their honour the same night at the Drill Hall. Matters of trade interest were discussed with members of the Chambers of Commerce and the Agricultural Society.—Mr. A. Somers Cox, M.A., has been nominated to succeed Dr. Dalton, who, as already announced, will resign the Headmastership of Harrison College on August 31st next.—Mr. W. Harper has been appointed, by St. Michael's Vestry, churchwarden of the parish.—The British Union Oil Company have struck oil at Turner's Hall, St. Andrew's, the site of the former oil companies that prospected in the island, the return for one week showing an average of 400 barrels a day. (A barrel holds 42 gallons.) The quality of the petroleum is reported to be very good, and it is hoped that the beginning has been seen of a prosperous oil industry in the Island. Oil has also been struck at Springfield in St. Joseph, but the yield here is at present insignificant.

Sir Edward Davson in Georgetown.

Sir Edward Davson, President of the Associated West Indian Chambers of Commerce, addressed a special meeting of the council of the Georgetown Chamber of Commerce on March 3rd, when Mr. C. Farrow presided. Sir Edward referred to the very full representation of Chambers at the Associated Meeting, several new bodies sending delegates for the first time. Alluding to the various resolutions passed in Trinidad, Sir Edward said that for £500,000 they could lay a Bermuda-Barbados-British Guiana cable, whilst a further £100,000 was required to extend it throughout the Windward and Leeward Islands. If, on the other hand, they adopted wireless, the cost would be but £20,000. On the basis of the present contributions, only £8,700 extra was asked for annually. Dealing with the question of federation, Sir Edward said that this might be a good thing between Trinidad and the Leeward and Windward Islands, but he could not see any advantage in having a central Government established in one place to govern the others, for he thought they could look after themselves and did not want government from outside. His proposal was to find a solution in co-operation as opposed to federation, and this was really a replica of what was happening in the Empire as a whole.

The death of Mrs. E. R. Boon, wife of the Chief Accountant of Messrs. Booker Bros. and Co., took place on March 1st.—Mr. F. Pudsey, second Assistant Director of Public Works, has been paying a visit of inspection to the Rupununi Cattle Trail, which it is hoped to improve in the direction of making the route shorter.—The congratulations of the Bar were paid to Mr. G. J. de Freitas, K.C., on his appointment to act as Junior Puisne Judge.—The Government have been informed by the Indian Government that the latter will be pleased to allow 276 East Indians, repatriated from British Guiana and other colonies, to proceed to British Guiana provided free passage is provided for them.

Mr. J. V. Fitzpatrick, writing on 29th March, states that the Buxton Estates Co., Ltd., have sold out their two Estates Plantations Lusignan and Non Pareil to the Enmore Estates Co., Ltd., and this means that Plantation Enmore will take off all future crops of Plantation Non Pareil and Plantation Lusignan will in all probability take off Plantation Mon Repos crops, the Mon Repos Factory being dispensed with. Nothing definite, however, regarding the latter has been decided. The purchase of the Buxton Estates very effectually puts an end to what is known as the

"Buxton and Friendship Village Right of Way question," which has been a bone of contention amongst the villagers there for several years, all proposals for the cutting of a connecting canal between Plantations Lusignan and Non Pareil having been rejected, although very handsome terms were offered for the privilege. The Buxton and Friendship villagers found themselves somewhat in a quandary last June when the Non Pareil Factory was closed down and the Friendship cane farmers were unable to convey their canes to Lusignan Factory for crushing. Eventually they decided at the end of last year to cut a connecting canal across the Buxton village lands at their own expense in order to convey their canes to Lusignan, and they then approached the Buxton Co., offering for a toll to permit the Non Pareil cane punts to pass through their canal to Lusignan factory, but now that the estates have been sold to Enmore, there will no longer be any need to convey Non Pareil canes to Lusignan.—Plantation Houston, which not very long ago was acquired by the British Guiana Sugar Factories, Ltd., has also been sold, it is understood, to a small local syndicate, while the town agencies of the British Guiana Sugar Factories, Ltd., and of the Wales Estates have been transferred to Messrs. Booker Bros., McConnell & Co., Ltd.—Mr. C. A. Campbell, senior partner of Messrs. Curtis, Campbell & Co., who came out on a visit of inspection over a month ago returned home by the s.s. *Intaba*, on which sailed also Mr. T. Harrison Hughes, senior partner of Messrs. Thos. & Jas. Harrison, owners of the Harrison Line of steamers. Whilst in the Colony, Mr. Harrison Hughes paid a visit to the interior, his trip including a visit to Kaieteur Falls.—The first of five or six expeditions sent by the Chicago Natural History Museum to South America has arrived in British Guiana. Mr. E. E. Dahlgren and Mr. J. R. Millar, who comprise the mission, propose to remain for some time in the Colony, says the *Argosy*, where they will make botanical and zoological collections.

Grenada's Electoral Districts.

The Committee appointed to advise on the necessary constitutional changes to give effect to the promised measure of representation have recommended the mapping out of Grenada and Carriacou into five electoral districts, which the *West Indian* understands to be as follows: (1) The town of St. George and part of the parish of St. George; (2) part of the parish of St. George and the entire parish of St. David; (3) the parish of St. Andrew's; (4) the parishes of St. Patrick and St. Mark; (5) the parish of St. John and the island Dependency of Carriacou. Our contemporary criticises this arrangement on the grounds that both the town of St. George and the island of Carriacou should have their own representatives.—Mr. J. P. Colglan was the recipient of an illuminated address at a farewell gathering held under the auspices of the Catholic Men's Union to mark his departure for British Guiana, where he has been appointed Stipendiary Magistrate.

The New Jamaica Tariff.

The new Tariff Bill received its third reading on April 4th, after protracted debates. Three of the elected members voted against its passing.—Mr. Mitchell-Hodges, after his success in capturing the man-eating shark which had killed Miss Adeline Lopez, was asked to continue the good work and rid the harbour of these pests, but owing to the state of his health, has had to relinquish the sport of big game fishing for a time. On March 28th he sailed for

Panama. Several other large sharks of 10 to 12 feet in length have been captured at different points. It has been decided to devote the money subscribed to the Adeline Lopez Memorial to founding a scholarship at Wolmer's School, where that young lady had been educated.—Answering a question in the Legislative Council, the Colonial Secretary explained that Government support was being afforded to Mr. A. W. Farquharson in his mission to England to the extent that the Government had addressed two despatches to the Secretary of State emphasising the importance of his mission, and forwarding the enclosures presented to the Jamaica Imperial Association.—Mrs. W. A. Hall has been publicly thanked and presented with an address at Brown's Town in recognition of her devoted services during the alastrian epidemic.

Under the auspices of the Jamaica League, a presentation was made, on March 21st, to the Rev. E. Gordon Somers, President of that organisation. Hon. H. A. L. Simpson paid a well-deserved tribute (says the *Gleaner*) to Mr. Somers' work in the interests of education, as well as of the industrial, social and political life of the people.

Moderate Pickings of Tobago Cacao.

Mr. Robert S. Reid, writing on March 28th states: Cacao is coming on a little more freely, and moderate pickings are expected in April. Some favoured estates may make last year's crop, but the majority will fall far short. A fortnight's dry spell just experienced may harm the young flowers now on the trees. Light showers would be acceptable, the hill-sides being by now quite dried up, especially in the Leeward district. The Government have been investigating the water supplies in the villages, and new wells are being dug.—Louis D'Or New Bridge was progressing well until work had to be shut down for lack of a pump for the foundations, although the plans were made years ago.—The coastal steamer *Belize* was off duty for a week, undergoing periodical cleaning in the Government dock. Mails were dispatched by schooner, but cargo and passengers had to wait. Since the withdrawal of the *Barima*, North Coast estates can only send cargo one way and once a fortnight.

Canadian Manufacturers in Trinidad.

In a letter dated March 23rd, Mr. Hamlyn writes: A special general meeting of the Trinidad Chamber of Commerce was held on Tuesday, March 14th, to welcome the representatives of the Canadian Manufacturers' Association. The Hon. A. Fraser, President of the Chamber, in welcoming the visitors, referred to the unsatisfactory and one-sided working of the Reciprocity Agreements between Canada and Trinidad. Mr. W. S. Fisher, President of the Canadian Manufacturers' Association, replied, and in the discussion which followed, the disadvantageous position of Trinidad sugar because of Canada's adhesion to the Dutch Standard, and the falling off of the purchases by Canada of Trinidad cocoa, were thoroughly ventilated. The representatives made it clear that they were travelling chiefly in search of information, and while they were quite sympathetic towards the desire of members of the Chamber for a better demand for Trinidad produce in Canada, they were not able to offer any remedy. They suggested that the situation might be ameliorated by both sides getting together and discussing mutual needs. They extended a

cordial invitation to any Trinidad commercial men who felt inclined to visit Canada. Mr. Payne, secretary of the Commercial Intelligence Branch of the Canadian Department of Trade and Commerce, who was accompanying the representatives on their tour, also spoke, and he assured the Chamber of Commerce that the new Minister for Trade and Commerce was as warm a friend of the West Indies as was his predecessor, Sir George Foster. Mr. Albert Stollmeyer pleaded for help and sympathy from Canada in the efforts being made to establish a fruit industry in Trinidad. On Thursday, March 16th, Mr. C. F. Towers, Superintendent of the Foreign Trade Department of the Royal Bank of Canada, delivered a lecture to the Chamber of Commerce on Canadian-West Indian Trade. The point he emphasised particularly was that Canada, by her rapid growth, would soon be in a position to dispense with New York as a source of supply of such tropical produce as she needed, and be able to purchase direct from the West Indies. The full extent of Canada's purchases of West Indian produce would then be made apparent, and the working of the Preferential Tariff Agreements would be made clearer, with the result that it would appear more satisfactory from the West Indian standpoint.—On March 15th the corner-stone of the new Temple for the Royal Prince of Wales Lodge (of Freemasons), No. 867, E.C., was laid with appropriate ceremonies by Mr. George F. Huggins, O.B.E., Past Master of the Lodge, who had given the site for the new Temple at St. Clair.—At the meeting of the Legislative Council on March 17th consideration of a Bill to amend the Agricultural Relief Ordinance, 1921, was further postponed, and a Bill to provide for a permanent income tax was read a first time.—At Cocorite Leper Asylum on March 20th, H.E. Sir S. H. Wilson invested Rev. Mother Nigay, for many years resident superintendent of the asylum, with the insignia of a Serving Sister of the Order of St. John of Jerusalem, conferred upon her by the King in recognition of her long self-sacrificing service in the cause of suffering humanity.

Writing again on March 30th, Mr. Hamlyn says:—At a meeting in premises recently acquired for the purpose in Port-of-Spain, the Young Men's Christian Association was formally established on March 21st. Mr. T. Geddes Grant was in the chair, and Mr. R. D. Pringle, of the National Council of Y.M.C.A.'s, London, explained the procedure to be followed. Rev. J. H. Poole was confirmed as General Secretary. Next morning the Governor received Mr. Pringle and Mr. Poole, and consented to become Patron of the Y.M.C.A. in Port-of-Spain.—At the meeting of the Legislative Council held on March 24th, a Bill to amend the Agricultural Relief Ordinance of 1921 was read a second time. The Auditor-General explained how the objections which had occasioned its postponement had been met, and, as there were no further objections, the Bill passed through the remaining stages and became law. The Receiver-General having moved the second reading of the Income Tax Bill in an explanatory speech, the discussion upon it was, on the motion of the Hon. A. H. Cipriani, postponed until the next meeting.—His Excellency Sir H. E. Wilson attended the Speech Day of the Queen's Royal College on March 24th, and, after presenting the prizes, unveiled the Memorial Tablet which had been put up to commemorate those students of the College who had fallen in the Great War.—On March 26th Lady Wilson attended a meeting of the Girls' Clubs' Union at the residence of Mrs. Grieg, and delivered an address to the girls.

WEST INDIES AT WESTMINSTER.

Mr. Wood's Report.

In reply to Mr. Gideon Murray, on April 6th, Mr. Edward Wood stated that he hoped to have his report on his official visit to the British West Indian Colonies ready in the course of the next two or three weeks. He understood that courtesy demanded that it should not be laid on the Table of the House before it had had time to reach the Colonies concerned.

Labour Employed at Kelham and Cantley.

Replying to Sir A. Fell and other members on April 10th, Sir Arthur Boscawen stated that from 800 to 900 men were employed for a short time in the winter months at Kelham and Cantley factories, but during this time the factory worked continuously for 24 hours a day and seven days a week. Mr. Hilton Young informed Captain W. Benn that no Excise duty on sugar due in the last financial year had been remitted.

Legislation in Jamaica.

Mr. Churchill informed Captain W. Benn, on April 11th, that no instructions had been issued to the Government of Jamaica to prepare and pass immediately a Bill to prevent the publication of misstatements upon matters of public interest, but the attention of the Governor had been drawn in 1919 to certain legislation which had been passed in another Colony for controlling the importation and circulation of seditious publications. A law called the "Harmful Publications Prohibition Law" had been recently introduced into the Legislative Council of Jamaica.

The Kingston Penitentiary.

Replying to Brigadier-General Nicholson, on March 17th, Mr. Churchill stated that a petition had been received from the Kingston penitentiary staff, Jamaica, relating to their scales of pay and allowances. A Commission had recently been appointed to inquire into the salaries of the Civil Service in the Colony, and the Governor had been accordingly informed that, as the case of the petitioners would presumably be examined by the Commission, the Secretary of State did not propose to intervene in the matter.

British Sugar Machinery Manufacturers.

Mr. Macquisten asked on April 10th whether he was aware that during the war the United States of America had built a great number of sugar factories in Cuba, where there was now over-production, resulting in these factories falling into the hands of creditors for machinery, and thence into the American sugar refiners' combine, who had diverted the whole of the making of machinery for Cuba away from Britain, resulting in great unemployment of British machinery makers in Glasgow and elsewhere in Britain, who were now also threatened with the loss of the making of machinery for the West Indies owing to the dumping of the Cuban surplus destroying the growing of sugar in the West Indies; and what steps did he propose to remedy this matter? Mr. Churchill replied: "The effects of these circumstances upon the West Indies had been engaging the attention of His Majesty's Government, but he was not in a position to make any statement on the subject at present."

OUR WEST INDIAN LIBRARY.

The Editor will be glad to receive gifts of books, copies of publications relating to the Colonies, photographs of West Indian scenery, or local events of topical interest, and donations towards the Library Fund.

THE LIFE OF ENOS NUTTALL, ARCHBISHOP OF THE WEST INDIES. By FRANK CUNDALL. With a foreword by the Archbishop of Canterbury. With Maps and Illustrations. pp. xiv + 256. London, The Society for Promoting Christian Knowledge. Price, 12s. net.

A biography of Archbishop Nuttall, who died in 1906, has long been due, and there is no one more fitted to undertake the task than Mr. Frank Cundall, who, in addition to his intensive enthusiasm for, and unrivalled knowledge of, West Indian literature, served for twenty-five years on the Archbishop's Diocesan Council, and was also associated with him for many years in educational affairs. The result is an extremely able record of a forceful personality, whose heart, as the Archbishop of Canterbury says in a Foreword, was always centred in the West Indies, and whose sound judgment and statesmanlike way of dealing with difficult problems, would, according to his biographer, have made him an ideal Colonial Governor. Mr. Cundall has in some measure left his hero to tell his own story by means of extracts from the Prelate's diary and correspondence. That the task of selection can have been no light one can be gathered from the fact that copies of no fewer than thirty-five thousand of his letters have been preserved, filling over eighty books.

Born in 1842, Enos Nuttall spent his boyhood in Worsley, becoming at the age of seventeen a Wesleyan Lay Preacher, and it was as a Wesleyan missionary that he sailed to Jamaica in 1862. His first appointment in the Anglican Church was as a Deacon at Spanish Town in 1866. The same year he was ordained priest and given the incumbency of St. George's, Kingston. Fifteen years later he was consecrated Bishop of Jamaica in succession to Bishop Tozer. It is interesting to find Bishop Nuttall, in 1883, attacking Froude's "English in the West Indies," of which he says that "it is difficult to imagine how anyone, evidently actuated by no unkind feeling, could have managed so utterly to misrepresent the facts of the case." We find him also alluding at some length, as far back as 1894, to Bedwardism, that strange cult whose leader was last year sent to a lunatic asylum.

From 1893, when Bishop Nuttall was elected by the Synod, Primate of the West Indies, he was labouring incessantly for the welfare of these territories. Not only Church matters and education, but such questions as the Sugar Bounties, steamship communication, hurricane and earthquake relief all engaged his attention and enlisted his active interest. To obtain help for the sufferers from the Kingston earthquake of 1907, he and Mr. A. W. Farquharson travelled to England, and his energetic manner of dealing with the situation is well illustrated by a letter from Mr. Joseph Rippon, O.B.E., quoted by Mr. Cundall: "There had been formed in London, as soon as the knowledge of the disorder reached us, a Committee of the West India Committee to consider and take steps for the relief of the sufferers. Matters were progressing very satisfactorily. The Lord Mayor had been approached, and it had practically been agreed that the circumstances warranted the opening of a Lord Mayor's Fund, and also that a grant-in-aid would be forthcoming from the Imperial Government. . . . When all this had been fairly got

under way, the Archbishop came to our meeting, and I remember, as it were to-day, our dear old friend walking in, absorbing the whole Committee and all its affairs." This we can confirm, for it is an incontrovertible fact that as a result of the representations of the West India Committee, the Government had definitely decided to make a free grant of £150,000 and a loan of £800,000 (the figures actually suggested by Mr. E. A. de Pass), but had deferred making the announcement to the Committee until the arrival of the Archbishop and his colleague.

Archbishop Nuttall's visits to this country were largely occupied by work for the British West Indies, and for Jamaica in particular, and in 1894 he founded the Jamaica Church Aid Association, which still maintains an active existence in London. Of a banquet given by the West Indian Club in 1911, the Archbishop wrote in his diary: "It was a really useful opportunity for discussing West Indian affairs, and it was well taken advantage of." The practical influence he brought to bear at a difficult time in the Church's history, and the great affection with which he was regarded by all classes of public men, are well brought out in Mr. Cundall's final chapter, and it is difficult to resist the conclusion from this account of the Archbishop and his fellow-workers that the Church of England has been well served in the West Indies.

Of many amusing anecdotes recounted by Mr. Cundall, it will suffice to quote one. A fellow-passenger, noticing him wandering unhappily about the dock at Southampton, said: "Archbishop, what is the matter? You look unhappy." He replied: "I have found some of my luggage under 'N' for Nuttall, and some under 'W' for West Indies, but there are two packages I cannot find." On which his fellow-passenger pointed out that one was under "A" for Archbishop, and another under "G" for Grace.

A HISTORY OF THE BAHAMAS HOUSE OF ASSEMBLY. Written and presented to the House by MR. SPEAKER. Printed by order of the House. NASSAU: *The Nassau Guardian*, 1921. x + 83.

Whatever may have been the case in the past, the Bahamians are now justly proud of their political Constitution, even if perhaps they do not show for it the almost aggressive veneration which the Barbadian has time and again displayed when his political institutions have been called in question. To the Constitutions enjoyed by Barbados and by Bermuda, that of the Bahamas is closely akin, being of a type of Colonial Government which was set up almost as a matter of course in the seventeenth and eighteenth centuries, but has only survived in these three examples. Now that Representative Government is a subject very much to the fore in the West Indies, it is peculiarly fitting that Mr. Harcourt Malcolm, O.B.E., K.C., should have put into permanent form the results of his researches into the origin and development of the Bahamas House of Assembly, of which he has been Speaker since 1914, being the fortieth since 1729 to hold this historic office.

The Bahamas were acquired by England by settlement about the year 1640, and from very early days they have possessed elective institutions, so that when at the time of the American Revolution, the Loyalists flocked over from the neighbouring mainland, not only did they find a popular Assembly in existence, but even already, as we read, its methods were "slightly antiquated." The House has always shown itself sturdily jealous of its privileges, an instance of this occurring only recently in a certain *cause célèbre*,

which is still *sub judice*. Although this spirit of independence resulted in a number of stormy scenes, so that at one time Governors must have found the Colony far from a comfortable one over which to preside, there has been an almost entire absence of friction with the Home Government, the most notable exception being in 1900 when Mr. Joseph Chamberlain caused the suspension of one Act, and the elimination of several items from another, although both had in fact come into operation. But the impasse thus created was skillfully avoided by the fact of the great Secretary of State, who tacitly although not expressly, withdrew the veto which had been imposed on these measures.

In addition to tracing minutely the history of the Bahamas Constitution, the author presents an exhaustive analysis of the present procedure of the House of Assembly, quoting many pertinent details from its records. It gives a pleasant sense of continuity to find in many of the old lists of members surnames recurring that are borne by families still prominent in the Colony. The mace of the House of Assembly, of which an excellent illustration is given, has often been thought to be identical with the "bauble" which the Protector, Cromwell, ordered to be removed from the English House of Commons, but the same claim has been made for the mace of Barbados, and it must be added, for those of other Colonies. Mr. Malcolm effectively disposes of the myth in the case of the Bahamas by adducing evidence that the symbol was made in 1798.

The present volume should be of the greatest value to the historian, the constitutional lawyer and the local legislator, but should not be overlooked by the general public who may be interested in the fascinating story of these Islands. That it will take its place at once as the standard work of reference for the subject of which it treats, we are assured.

THE CIVIL LAW OF BRITISH GUIANA. By H. C. DALTON, M.A. GEORGETOWN: *The Argosy Company*.

Roman-Dutch Law, which was expressly preserved by the treaty of capitulation of British Guiana, ceased to be the common law of the Colony in 1916, on the enactment of the Civil Law of British Guiana Ordinance of that year. This ordinance purported to codify certain portions of the Roman-Dutch Law, and "in other matters to substitute the English common law and principles of equity, along with certain English statutory provisions for the Roman-Dutch law." It may be regarded, therefore, as the foundation stone of the present Civil Law of the Colony, dealing as it does with such important legal relationships as are involved in trusts, mortgages, wills, intestacy, title, etc. Mr. Dalton, who as a Puisne Judge in Demerara, and editor of the local Law Reports, is well qualified for the task, undertook the compilation as the outcome of an article in *Timahri*. His method has been to set forth the text of the Ordinance in bold type, interspersing each section with his own comments and interpretation in smaller type, and completing the usefulness of the handbook by including all amendments to the principal ordinance, together with notes, a list of decided cases, an index and an appendix of ordinances referred to. The arrangement is clear and concise, and as a work of reference Mr. Dalton's book should be invaluable not only to legal practitioners, but also to litigants and property owners generally in the Colony.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

THE REFINERS' CAPACITY.

The following table shows the output of the sugar refineries in this country (according to the official Board of Trade Returns) in relation to consumption of refined sugars in the United Kingdom from the year after that in which the Brussels Convention came into force.

	From Refiners.	Imported.	Total Consumption Refined.
1904	529,804	873,191	1,402,995
1905	552,097	731,775	1,283,872
1906	539,769	873,620	1,413,389
1907	502,808	960,319	1,463,127
1908	537,255	911,544	1,448,799
1909	590,868	924,577	1,524,580
1910	636,751	823,602	1,460,353
1911	651,969	880,467	1,532,436
1912	714,471	808,037	1,522,508
1913	715,655	899,326	1,614,981
1914	731,650	901,930	1,633,580
1915	784,350	505,500	1,289,850
1916	731,150	410,770	1,141,920
1917	713,980	169,500	883,480
1918	739,100	21,000	760,100
1919	835,750	462,140	1,297,890
1920	785,140	130,622	924,762
1921	787,572	469,472	1,257,044

It is only fair to the refiners of the United Kingdom to say that they state that they claim to be in a position to refine all the sugar required in the United Kingdom.

COLONIAL CIVIL SERVICE.

The following appointments and promotion affecting the Colonial Civil Service of the West Indies have recently been made by the Secretary of State for the Colonies:—

Mr. E. Babbington, Telephone Inspector, British Guiana.

Major A. N. Aitken, C. A.M.C., Medical Officer, St. Kitts.

Mr. C. G. Hansford, Microbiologist, Jamaica.

Sergeant-Major J. Murphy, Staff-Sergeant-Major, Jamaica Constabulary.

Mr. P. G. Noott (Superintendent of Prisons, Grenada), Chief Warder, 1st Grade, Prisons Department, Southern Provinces, Nigeria.

Mr. H. W. Moor (Deputy Conservator of Forests, Trinidad), Assistant Conservator of Forests, Gold Coast.

Mr. J. H. Powter (District Traffic Superintendent, Nigeria Railway), General Manager of Railways, Trinidad.

Dr. F. H. Alexander, Medical Officer, District 5, St. Lucia.

Mr. G. Mackay (Superintendent of Schools, Fiji), Director of Education, Trinidad.

[Mr. Mackay, who is a graduate of Aberdeen University, was in 1903 appointed an assistant master at Victoria School, Seychelles, subsequently becoming headmaster and Inspector of Schools. In 1911 he was made Principal of King's College in that Colony. After two years as Chief Inspector of Schools in Mauritius, he was appointed in 1916 Superintendent of Schools in Fiji, where he also served as Commanding Officer of the Defence Cadet Corps.]

SOME COMPANY NOTES.

The Colonial Bank.

The accounts for the half-year ended December 31st last show a net profit of £67,350 (as against £50,238 for the same period in 1920), making, with the balance of profit from the previous half-year brought forward, a total of £97,165 (as compared with £116,814 in 1920). Out of this the directors recommend that £20,000 be allocated to providing for possible bad and doubtful debts, and that a dividend be declared at the rate of 8 per cent. per annum, less income tax, which will absorb £36,000, leaving £81,165 to be carried forward. The directors, in their report, state that the present sugar crops of the British West Indies, generally speaking, will be somewhat short. In Jamaica the outlook with regard to the banana crop is good, and a considerably larger area is under cultivation. The cacao exports from the Gold Coast have been slightly in excess of the previous season. Active business is already resulting from the branch opened at Hamburg.

Limmer and Trinidad Lake Asphalt Co.

Presiding at the 55th annual meeting of this company on March 23rd, Sir Henry Holloway said that a considerable extension of the company's business had been made during the year, no fewer than seven installations of new plant for the manufacture of Trinidad asphalt macadam paving having been erected in various parts of England and Scotland. The total area of this paving laid in the United Kingdom to December 31st last represented some 201 miles of roadway. A final dividend of 7½ per cent. less tax, was approved, making 15 per cent. for the year on both Preference and Ordinary shares, and a bonus distribution of 24,500 Ordinary shares of £1 each to the shareholders was authorised, at the rate of one such fully-paid share for every 10 Preference or Ordinary shares now held.

United British Oilfields of Trinidad, Ltd.

Presiding at the eighth ordinary general meeting of the United British Oilfields of Trinidad, Ltd., Lord Cochrane of Cults said that this company and the United British West Indies Petroleum Syndicate, the United British Mineral Oil Co., and the United British Producing Co. had been one entity for all practical purposes since the 1919 reorganisation. The outstanding feature of the field operations in 1921 had been the completion of an arrangement with the Bataafsche Petroleum Maatschappij, the operating subsidiary of the Royal Dutch Co., who lent their assistance in return for a royalty on additional output. The company's refinery had in 1920 and 1921 treated a total of 106,000 tons of crude oil. The chairman concluded:— "After a connection with Trinidad oil extending over nearly twenty years . . . I can assure you that Trinidad is not one of the easiest places in which to work, and I am strongly of opinion that Trinidad oil problems are far from being the least difficult that the world presents." Lord Eustace Percy, a director, referred to his recent visit to Trinidad, when he found the company's work going on steadily, although he could not hold out any definite prospects of spectacular success.

MAJOR THE HON. W. ORMSBY GORE, M.P., is to read a paper regarding the recent visit of the Colonial Office Mission to the West Indies, at the Royal Colonial Institute, in the second week in June. His interesting descriptive articles which appeared in *The Times* will shortly be published in pamphlet form by The West India Committee.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Notague*, April 18th:—

Mr. & Mrs. E. W. Carter	Mr. & Mrs. F. E. Fearnside	Mr. N. Kendall
	Mr. & Mrs. H. Green	Miss M. Marsden
		Mr. & Mrs. J. Wade

Sailings to Jamaica, from Liverpool, in s.s. *Greenbrier*, April 11th:—

Mr. J. C. M. Gibb	Miss M. Mudie	Mr. W. N. Williams
Rev. & Mrs. H. Hughes	Serjt. J. Murphy	

Home arrivals from Jamaica, in R.M.S. *Bayana*, Avonmouth, April 16th:—

Mr. & Mrs. T. Anderson	Mr. F. R. Ellis	Brig. Gen. E. A. Moulton-Barrett, C.M.G.
Miss Anderson	Mr. A. Escarre	
Mr. & Mrs. Guy Baxter	Mr. J. J. Galloway	
Mr. R. Corfield	Miss F. Green	
Mr. & Mrs. J. Carlton	Miss Alice Grant	
Capt. & Mrs. C. A. Chudleigh & fam.	Mr. R. G. Hammond	
Miss & Mrs. R. G. Collins & fam.	Mr. A. J. Harris	
Mr. Cheig	Mr. W. E. Horrocks	
Miss N. J. Coote	Capt. W. J. A. Hibbert	
Mr. J. Kemp Cooke	Mr. & Mrs. H. Herzog	
Mrs. B. E. Crowden	Mr. H. J. Henriques	
Mr. F. C. Cuetts	Miss B. Kaley	
Mrs. A. F. Currie & fam.	Mr. & Mrs. E. Knorr & fam.	
Mr. & Mrs. G. H. Deery	Mr. H. Lacluer	
Mr. & Mrs. A. Denyer	Mr. A. Lacluer	
The Misses Denyer (3)	Mr. J. Lang	
Mr. T. E. Durrington	Mr. & Mrs. A. Lear & fam.	
	Capt. & Mrs. C. M. Lloyd	
	The Misses Lloyd (3)	
	Mr. H. W. Thornton	
	Miss E. P. Turberville	
	Mrs. & Miss Tivy	
	Mr. F. Velasquez	
	Rev. & Mrs. J. W. Wright	

Home arrivals from Jamaica, in s.s. *Notague*, Avonmouth, April 11th:—

Lt. Col. G. M. Goldsmith	Mr. & Mrs. G. Hawkins & Son	Mr. J. M. Morgan
Mrs. T. Gray & Son	Capt. W. V. Howard	Miss S. M. Morgan
Mr. J. F. Hardie		Mr. & Mrs. A. G. Paten
	Capt. V. W. Massey	

Thos. & Jas. Harrison.

Advanced bookings per s.s. *Specialist*, from London, April 28th:—

Mr. Baller	Mr. T. Galloway	Miss Sturgess
Mrs. M. M. Carter	Mr. & Mrs. McInroy	Mr. Wright
Miss & Miss Duggett		

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in s.s. *Venezuela*, April 14th:—

Mrs. Campbell & fam.	Mr. J. Rees McCarthy	Mrs. Russell
Mr. J. B. Centeno	Mr. Paul	Mr. & Mrs. Urlich
Mrs. M. J. Felder	Mr. Rhatigan	Mrs. Welton & fam.
Mr. F. J. Harrison	Mr. L. J. Riley	Mr. W. F. Williams
Mr. & Mrs. H. N. Leacock		Miss Westwood

Home Arrivals from West Indies, in s.s. *Van Rensselaer*, Plymouth, April 18th:—

Mr. J. Barrington	Mr. C. Fleming	Mr. T. Hinchin
Mr. E. Blake	Mr. H. Godal	Mr. W. Holman
Mr. E. Brazier	Mr. A. Gomes	Miss F. Lamonde
Mr. F. Bearar	Miss A. Gomes	Mr. A. Munro
Mr. & Mrs. C. A. Campbell	Mr. & Mrs. C. Gomes	Mr. J. Kambhar
	Mr. S. Gomes	Mr. A. Wade
Miss M. Crowley	Mr. G. Courtney	Mr. H. Windhurst
Mr. A. Duckham	Mr. A. Hendrik	Mr. L. Witz

Advanced bookings per s.s. *Stuyvesant*, from Dover, April 29th:—

Mr. & Mrs. A. E. Chapple	Mr. D. G. Lewis	Mr. Nethercote
	Mr. Luck	Mr. Short
Mr. G. E. Cookson	Capt. C. F. O. Master	

VISITORS FROM OVERSEAS.

Visitors from the West Indies are invited to register their addresses at the West India Committee Rooms, 15, Seething Lane, London, E.C. By doing so they will facilitate the forwarding of their correspondence. Among those at present registered are:—

Mr. F. H. Alcock	Mr. Frank H. Johnson
Mrs. S. Archer	Mr. J. P. Kirkness
Dr. R. Welleley Bailey	Mr. William Mackay
Mr. E. Lambert Bell	Mr. Dagald MacPhail
Hon. A. G. Bell, C.M.G.	Mr. D. Luckie Matthew
Mr. B. Bonyun	Mr. Hugh McJelland
Mr. A. E. Bratt	Hon. Mr. Justice W. F. Michelin
Mr. James Brown	
Mr. J. W. Canheart	Mr. R. Nicol
Hon. Cecil Clementi, C.M.G.	Mr. E. A. Percival
Dr. J. H. Cooke, B.A., M.B.	Lieut. W. M. Richards
Mr. H. S. Cox	Mr. J. A. Robotham, P.S.A.J.
Dr. Q. B. de Freitas	Hon. W. J. Robson
Mr. P. J. Evans	Mr. D. Hop Ross
Mr. A. W. Farquharson	Mr. L. A. Ryan
Hon. H. Ferguson	Mr. C. B. Sayles
Mr. J. J. Franco	Mr. Ivan J. Scott
Dr. W. H. Frels	Mrs. H. H. Sealy
Mr. C. C. George	Dr. L. K. Sharples
Mr. E. P. Gladwin	Mr. W. M. B. Shields
Mr. Gordon Graham	Mr. R. Strang
Mr. Allek G. Haulya	Dr. H. A. Tempny
Mr. T. C. Hanschel	Mr. C. Thomas
Sir J. B. Harrison, C.M.G.	Mr. L. A. Torrance
Mr. W. P. Humphrey	Mr. L. M. Walcott
Capt. Thomas H. Irving	Hon. R. A. S. Warner, K.C.
Hon. Mr. Justice H. C. Jackson	Mr. G. A. Yearwood
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.	
Mr. Archibald Gordon, 60 Messrs. John Leckie & Co., 84, Fore Street, E.C.	
Mr. A. M. Reil, South Cerney, Cirencester, Glou.	
Mr. H. Elin Stoyie, Crediton, Devon.	

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
B'dos & T'dad	Dover	Stuyvesant	Apr. 29
B. Honduras	Liverpool	Spectator	" " 29
J'na & B'mas	Glasgow	Nortonian	" " 29
Trinidad	Plymouth	La Navarre	May 1
Jamaica	Bristol	Changinola	" " 1
B'dos & T'dad	Liverpool	Senator	" " 6
Jamaica	Bristol	Coronanda	" " 8
Jamaica	Liverpool	Barranca	" " 9
J'na & B'mas	Liverpool	Acton	" " 12
West Indies	London	Intaba	" " 12

B'mas, J'na & B. H'das	Montreal	Canadian Forester	May 31
Ch'da, T'dad & Demerara	New York	Maraval	June 6
West Indies	Halifax	Chaudiere	" " 6

WEST INDIAN SECURITIES.

Div.	Rate	Security	Latest prices.
4%	4%	Antigua Redeemable 1919-44	84-96
4%	4%	Barbados	73-78
4%	4%	British Guiana	85-87
4%	4%	British Guiana	63-64
4%	4%	Grenada	78-78KD
4%	4%	Jamaica	86-88
4%	4%	Jamaica	72-72
4%	4%	Jamaica	69-71
4%	4%	Jamaica	78-80
4%	4%	St. Lucia	82-85
4%	4%	Trinidad	70-72
4%	4%	Trinidad	70-72
8%	8%	The Colonial Bank	6-6 1/2
8%	8%	Royal Mail Steam Packet Co. Ordinary	85-100
6%	6%	Augustine Bitters Part. Preference	103-104
6%	6%	New Trinidad Lake Asphalt Co. 8% Debentures	11-
7%	7%	Consolidated Rubber and Balata Estates Pref.	43
—	—	St. Madeline Sugar	45-
—	—	Apex (Trinidad) Oilfields, Ltd.	1 1/2
—	—	Petroleum Options, Ltd., 10%	50-
10%	10%	Trinidad Central Oilfields	1 1/2
—	—	Trinidad Dominion Oil, Ltd., 10%	25-
—	—	Trinidad Leaseholds, Ltd. (21)	10 1/2
—	—	United British Oilfields of Trinidad, Ltd.	7 1/2
—	—	General Petroleum of Trinidad	—
—	—	Direct West India Cable Co.	1-4
—	—	W. I. and Panama Tel. Co., Ltd., Ordinary	14-2
—	—	W. I. and Panama Tel. Co., Ltd., 6% Cum. Int. Pref.	13-13 1/2
—	—	W. I. and Panama Tel. Co., Ltd., " "	70-75
5%	5%	W. I. and Panama Tel. Co., Ltd., 5% Debentures	—

PRODUCE MARKETS SUMMARY.

Telephone—
Central 5642.

Telegrams—
"Carib. London."



15, BEECHING LANE,
LONDON, E.C. 3.
April 25th, 1922.

BANK RATE. Reduced to 4 per cent. as from April 13th, after having remained at 4½ per cent. from February 16th.

EXCHANGE. Value of the £ Sterling.

	April 11th		April 25th			April 11th		April 25th	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
In U.S.A. ...	18 14	18 2	19 0	17 7	In Spain ...	1 9 6	1 2 6		
.. France ...	1 18 0	1 17 7	.. Germany ...	84 8 0	59 12 0				
.. Belgium ...	2 1 1	2 0 10	.. Austria ...	1378 0 0	1384 5 0				
.. Italy ...	3 4 8	3 4 8	.. Holland ...	19 7	19 2				

The intrinsic value of the gold sovereign is £1 2s. 2d.

SUGAR. Quotations remained nominal in the New York market from the date of last Summary up to the 22nd inst., when sales of Cubans for immediate delivery were made at 2.98 c., duty paid landed. This quotation, which is equivalent to 2.37 c. c.i.f. and about 2.20 c. f.o.b., remained unchanged yesterday. Future values were: May 2.88 c., July 2.62 c., Sept. 2.82 c.

Demand for immediate supply in the Home Market has, in view of the approaching Budget, been slack, and prices remain much the same as they were at the date of the last Summary. Quotations are as follows: London granulated, 48/6; American granulated, spot, 47/6; white Mauritius, 44/6 spot, equal to about 23/- c.i.f.; Preferential 96 deg., 16/6 c.i.f.; Cubans, 13/- c.i.f.; West Indian crystallised, 41/- to 43/6 spot terms. Terminal market values for 96 deg. were: May 18/10½, July 14/-, Sept. 13/10½. White 19/8½, 19/8½, 19/8½ respectively.

The Board of Trade Returns show that the imports of sugar for March were 156,676 tons, consisting of 29,149 tons of refined and 127,528 tons of unrefined. This brings the total imports for the quarter up to 412,809 tons, as against 256,174 tons for January-March, 1921. The imports of refined sugar from the Continent for the month were only 8,946 tons, principally from Holland, Czecho-Slovakia only sending in 1,092 tons; but the United States contributed 21,892 tons. In the unrefined category, the month's imports included 103,071 tons from Cuba, 8,559 tons from the British West Indies, and 999 tons from Mauritius.

The consumption for the month was 111,770 tons, making for the quarter 350,925 tons, as against 334,361 tons for the first quarter of last year. The refiners' contribution for the month was 76,977 tons, bringing their three months' deliveries up to 225,250 tons. Stocks in hand on March 31st were 309,900 tons, of which 16,550 tons were foreign refined and 27,950 home refined. These compared with 141,650 tons on hand on February 28th, of which 13,650 tons were foreign and 17,900 tons home refined.

The West Indian sugar statistics in London on April 15th were:—

	1922.	1921.	1920.
Imports	7,529	8,690	13,832 Tons
Deliveries	9,578	13,307	9,311 "
Stock	2,648	3,787	12,657 "

RUM. The home market is dead, but there is a little more demand for export. The imports of rum for March were 318,101 proof gallons, making 640,852 galls. for the three months, as against 1,664,126 galls. for the first three months of last year. The consumption for the month was 75,751 galls., as against 145,238 galls. in February. This brings the three months' consumption up to 387,469 proof gallons, as against 616,249 galls. for January-March, 1921. The exports amounted to 50,823 galls. for the month, making 114,939 galls. for the three months, a substantial improvement in last year's figures, which were 65,725 galls. for the same period. Stocks on hand on March 31st were 11,412,000 galls., as against 11,699,000 galls. on February 28th.

The stocks in London on April 15th were:—

	1922	1921	1920
Jamaica ...	11,075	9,869	7,462 Pans.
Demerara ...	19,512	16,322	12,343 "
Total of all kinds	39,865	36,411	28,303 "

CAO is steady. Business has been done in Trinidad on the spot at 75/-, and at 57/6 to 60/-, c.&f. to arrive. Grenada has sold on the spot at 58/- to 61/-.

The imports of cacao for the month amounted to 162,343 cwt., making 488,804 cwt. for the three months. Only 1,100 cwt. came from the British West Indies, making 19,449 cwt. for the quarter.

The exports for the month were 68,396 cwt., or 186,776 cwt. for the quarter. Last year the January-March exports were 83,837 cwt. The consumption for the month was 68,040 cwt., as against 97,157 cwt. in February and 58,576 cwt. in March last year; but for the three months it was 274,679 cwt., as against 220,971 cwt. in January-March, 1921. Stocks in hand on March 31st were 758,000 cwt., as against 772,000 cwt. on February 28th.

The stocks in London on April 15th were:—

	1922	1921	1920
Trinidad ...	4,931	22,691	17,419 Bags.
Grenada ...	12,457	28,139	20,131 "
Total of all kinds	99,268	198,604	151,782 "

ARROWROOT. A small business is passing, with prices unchanged at: fair to good manufacturing 3½d. to 4d., and good to fine grocery 4½d. to 6½d.

BALATA. West Indian sheet continues slow of sale, with spot value nominal at 3/- to 3/0½. Fair stocks in London are reported.

BAY OIL continues neglected, with the supplies plentiful.

COFFEE. The Easter holidays have intervened since the date of last Summary, and the market was reopened on Thursday last. Coffee is generally unchanged, with very heavy offers, principally Costa Rica. Following a rise in Brazil, good to fine ordinary Jamaica is dearer, and 41 bags sold at 72/-. Owing to exchange difficulties and high prices, export continues slow.

COPRA is steady, with West Indian f.m.s. valued at £25 10s. c.i.f. London, £25 15s. c.i.f. Rotterdam.

COTTON. A moderate business has been done in West Indian Sea Island; the quotation for fine is reduced 100 points, and that of extra fine 200 points, at: medium 23d., fine 30d., and extra fine 38d.

HONEY. Only small sales have taken place privately at unchanged prices. The present range of values is from 27/8 to 65/- for dark to fine pale.

LIME PRODUCTS. Lime Oil. Handpressed is very slow of sale, with value nominal at 12/6 per lb. The heavy arrivals of Distilled have depressed the market, making the quotation 2/- to 2/1½ per lb. **Lime Juice.** Fine qualities of Raw are scarce and wanted at 2/9 to 3/- per gallon. In Concentrated, a considerable business has resulted at £18 on spot.

LOGWOOD continues unchanged, with business slow and quiet. Last quotation, £9 spot.

ORANGE OIL. Sweet is quiet, with sellers asking 10/6 per lb. on spot. Bitter is unchanged.

RUBBER. The market has remained steady but quiet, with little change in values. Crepe and sheet, 3½d. spot.

SPICES. The market for **Pimento** remains quiet with spot valued nominally at 2½d. per lb., and to arrive 19/6 per cwt., c.i.f. nominal. **Ginger** is quiet. New crop, common to good hold, is quoted at 180/- to 220/- per cwt. nominal. The market for **Nutmegs** remains steady; sound quality 7½d. to 9d., according to size; defective 4½d. to 6½d. **Mace** is steady at: fair to good pale, 1/6 to 1/7; red, 1/3; common red, 1/- to 1/2.

TRINIDAD OIL. Production for March: Trinidad Leaseholds, Ltd., 9,050* tons; Apex (Trinidad) Oilfields, Ltd., 8,600* tons; United British Oilfields of Trinidad, 3,469 tons. (* Output restricted.)

The West India Committee Circular

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THURSDAY, MAY 11, 1922.

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.00). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
CENTRAL 6642



15, SERKING LANE,
LONDON, E.C. 3.
May 11th, 1922.

Telegrams:
CARIB. LONDON.

WEST INDIAN PRODUCE AND THE BUDGET.

SIR ROBERT HORNE, making his first Budget statement on May 1st, announced that 1/- would be taken off the Income Tax, and that the duty on tea would be reduced by 4d. per lb., and the duties on coffee and cacao by one-third, or 1 1/3d. per lb. The expected reduction in the sugar

duty did not materialise, and those who had looked for an increase in the preference on British-produced sugar, in view of the advantage given to home-grown beet through the removal of the excise duty, have so far been disappointed. It must be regarded as a matter for satisfaction in the circumstances that the duty on sugar has not been reduced, for had it been, the preference, as matters now stand, would have similarly been reduced, as is actually the case with cacao and coffee. Thus, in respect of cacao, the duty being reduced by 1 1/4/- per cwt., the preference is similarly reduced from 7/- to 4 1/8 per cwt. As, however, the production of cacao within the Empire is so far greater than the requirements of the United Kingdom, the main value of the preference lies in the security of market which it affords, and the question of the amount is therefore of less consequence. With sugar, however, it is different. Every penny of the preference tells, and we had certainly hoped for an increase, bearing in mind that the United States admits the sugar from her territories free of all duty. But on this subject the last word has not yet been said. We have in mind the HON. EDWARD WOOD'S very definite announcement to the Associated West Indian Chambers of Commerce on January 27th. It will be recalled that he then said: "His Majesty's Government is prepared, subject to the approval of Parliament, to enter into a formal agreement with the West Indian Colonies that preference on West Indian goods at present entitled to preferential rates on importation into the United Kingdom shall be continued for ten years from the date of the agreement on the basis of reciprocity." Later, in Parliament, MR. WINSTON CHURCHILL stated that it was an "undertaking" that would be given. What we now want to emphasise is that to be of any real value in restoring confidence, the pledge shall be for the maintenance of the preference at a figure not less than its present value, namely, £8 15s. per ton for 96° test sugar. Otherwise the preference would be reduced if and when the sugar duty was reduced. This point has been emphasised by The West India Committee, and also, as we are glad to learn, by the British Empire Producers' Organisation, and MR. ARTHUR FARQUHARSON as representing the Jamaican Imperial Association. Coming now to the spirit duties, it is a matter for regret that these should remain unchanged and thus leave little hope for a revival in the demand for rum, the price of which is at present beyond the means of the working man.

THE PREVENTION OF MALARIA.

ANY study of malaria must necessarily be of profound interest to the residents in the West Indies. The whole tropical belt has been for the past twenty years, and is to-day, actively engaged in the struggle against the plague of malaria, which has kept whole areas stagnant and has seemed by fresh outbreaks consciously to resist any attempt to lift the territories affected out of their hopeless condition. In this connection we may commend to the notice of our readers a volume entitled "The Prevention of Malaria in the Federated Malay States," a second edition of which has recently been published.* Dr. MALCOLM WATSON and DR. A. R. WELLINGTON, the authors of this book, and certainly the writer of the preface, carry their own credentials with them. The issue of the first edition was supported financially by all the more important planting companies and firms in the Malay States, and one has only to read the book to appreciate the great advantages which must have accrued to these trading concerns from the work of Dr. WATSON and his colleagues. What did they do? From small beginnings in 1901, long before the science of malaria prevention had reached the point where it stands to-day, and among a prejudiced and ignorant population, they made habitable and contributory to the progress of the world places which had actually been or were on the point of being abandoned simply on the ground of the prevalence of malaria. Nothing strikes one more in reading these pages than the newness of the work of these public health officers. They had in effectiveness practically no predecessors. Until they began to put to practical test the discoveries of the late SIR PATRICK MANSON, SIR RONALD ROSS and DR. SAMBON and LOW very little, if anything, had been done to combat the plague of malaria. This book describes the practical steps taken to deal with it in certain parts of the Malay States. Dr. WATSON tells of how he came as medical officer to a place named Klang, where the work of eradicating malaria seemed well-nigh hopeless. Ten per cent. of the town area was swamp, ten per cent. was virgin jungle, and twenty per cent. was new forest growth. Everything favoured the mosquito. It was not practical to adopt the intensive methods afterwards to be adopted in the Panama Canal Zone, and Dr. WATSON, as he says, luckily, went whole-heartedly for the clearing and drainage methods of combating the disease by destroying the breeding places of mosquitoes. He is very frank; he tells of his mistakes, but his successes are amazing. He claims, and with right, that from small coast-line areas malaria has been completely eradicated by the drainage of swamps and the clearing of jungle, and that, when the jungle is felled and the pools drained, the mosquito (*A. Umbrasas*), which feeds in undrained jungle, is exterminated entirely, and with its extermination

malaria disappears. This second edition of the book, which embraces statistics as late as those for 1919, gives very striking figures. In the case of children, an enlarged spleen is one of the effects of malarial infection. Among the cases examined since the prevention of malaria campaign in definite areas set in, the "spleen rates" have descended from over 50 per cent. to a negligible fraction. It is all drainage and clearing in the Malay States coast areas. In the hill districts the same success has not been gained, and this apparently is due to the different species of mosquito prevailing as a malaria carrier. The book must be read, and we can only draw attention to its great value as a record of experience, and to the many practical lessons which can be drawn from its detailed description of Dr. WATSON'S battle with the fever. As we read we cast a thought at the conditions prevailing in British Guiana. The system in that colony of making the surface of roads out of burnt earth dug casually in the neighbourhood causes pools of water to form, which are persistent breeders of the anopheles mosquito. This is bad, and would not be persisted in if those concerned would study Dr. WATSON'S book and if road authorities would work closely with public health authorities. It is pleasant to read in a book written by a salaried official remarks indicative of considerable distrust of statistics. Dr. WATSON alludes to the fact that there are some spots so utterly unhealthy from malaria that no stranger ever visits them, the inhabitants of which, nevertheless, having acquired a certain degree of immunity, stand high in the health statistics.

THE WEST INDIA COMMITTEE.

Estab. : circa 1750. Incorporated by Royal Charter.

Notice is hereby given that the Annual General Meeting of the members of The West India Committee (Incorporated by Royal Charter) will be held at the Committee Rooms, No. 15, Seething Lane, in the City of London, on Thursday, the 25th day of May, 1922, at 3 p.m.

AGENDA.

(1) To receive and adopt the annual report of the Executive Committee, the audited statement of the Income and Expenditure Account for the year ended December 31st, 1921, and the Balance Sheet.

(2) To elect twelve members of the Executive Committee in the place of the following, who retire by virtue of Article VI. of the Royal Charter of Incorporation, but are eligible for re-election:—C. A. Campbell, Esq., S. Cameron, Esq., Sir Edward Dawson, Lieut.-Colonel Ivan B. Dawson, O.B.E., E. A. de Pass, Esq., Humphry Crum Ewing, Esq., W. Fawcett, Esq., B.Sc., G. Macgregor Frame, Esq., W. A. Griffin, Esq., T. Harrison Hughes, Esq., G. Moody-Stuart, Esq., and H. F. Previté.

By Order.

ALGERNON ASPINALL,

The West India Committee, Secretary,
15, Seething Lane, E.C.

May 11th, 1922.

[The Report and Accounts for the year ended December 31st, 1921, will be found on p. 207.]

* "The Prevention of Malaria in the Federated Malay States." A record of twenty years progress. By Malcolm Watson, M.D., C.M., D.P.H., and A. R. Wellington, M.B.C.S., L.R.C.P., D.P.H., etc., and a preface by Sir Ronald Ross, K.C.B., K.C.M.G. Second Edition. London.

SOME NOTES OF INTEREST.

"SCORNFUL dog eat dirty pudding."

* * *

THE export of cacao from Ceylon in 1921 was 62,402 cwts., as against 55,491 cwts. in 1920.

* * *

THE tenor of recent advices from Cuba points to a sugar crop of from 3,300,000 to 3,500,000, the latter figure being an almost certain maximum.

* * *

THE youngest passenger landed from s.s. *Cryssen* at Plymouth on May 2nd was the son of a member of The West India Committee. His age was five days.

* * *

THE value of the £1 shares of Home-Grown Sugar, Ltd., which was 5/9 at the time of the announcement in the House of Commons of the contemplated removal of the Excise duty on sugar, was 8/9 on April 18th.

* * *

WE regret to learn that Mr. W. C. Beloe, senior partner of the firm of Messrs. William Beloe & Co., produce brokers, of Bristol, died on April 5th. The firm will continue to be carried on by the remaining partner, Mr. Gerald H. Beloe.

* * *

THE present year is the centenary of the institution of the Royal Botanic Gardens at Peradeniya, in Ceylon, and *The Tropical Agriculturist* devotes its March issue to an account of their history, and of the work done there since their establishment.

* * *

THE following members of The West India Committee have recently taken up life membership: Hon. Cecil Clementi, C.M.G., Mr. S. A. Hawkins, Major E. R. Branch, M.D., Captain P. Ernie-Erle-Drax, D.S.O., R.N. There are now 112 life members of The West India Committee.

* * *

MR. CHARLES CAMBIE, manager of the London office of the Canadian Bank of Commerce, entertained a distinguished company of bankers and business men at dinner at Claridge's on Wednesday, April 26th, to meet Sir Edmund Walker, C.V.O., LL.D., president of the bank.

* * *

IT may not be generally known that Georgetown, Demerara, was once a spa. In the early years of the nineteenth century there was a chalybeate well where the Tower Hotel now stands. Like that yielded by the artesian wells in Georgetown in recent years, its water was strongly impregnated with iron.

* * *

MR. AND MRS. R. A. WISEMAN, of Rotherwood, Leatherhead, are to be congratulated upon the birth of a son. This item of news is of West Indian interest not only on account of Mr. Wiseman's recent tour, but also because his wife, who was Miss Penelope May Cardew, is a great-niece of Mrs. Forster Alleyne, formerly of Porters, Barbados.

ACCORDING to a cablegram from *The Times* correspondent at Suva, dated May 1st, over 12,000 cases of hookworm have been successfully treated in Fiji with carbon tetrachloride by Government agencies. Tests show that 98 per cent. of the worms were expelled with one dose, and 90 per cent. of the individuals cured with one dose.

* * *

THE apologies of the CIRCULAR are due to the Dutch West Indian Islands for a misprint on page 186 of last issue, which made it appear that they "had passed under the United States flag." It was obviously the Danish islands to which reference was made. The Dutch "standard" still waves over Curaçao, Saba, and St. Eustatius—and the Canadian refiners.

* * *

LIEUT.-GENERAL SIR JOHN ABSER, who has been appointed Governor and Commander-in-Chief in Bermuda, in succession to General Sir James Willecocks, entered the Army in 1887, and has since seen much service. He received the K.C.M.G., and was promoted Lieut.-General for administrative work during the Great War. His wife is a daughter of Mr. James Wotherspoon, of New York.

* * *

IN a report made to the South African Sugar Commission of 1917, on the subject of the sugar industry of Natal, referred to in the March number of the *South African Sugar Journal*, Dr. Tempany expressed his opinion that in a country like Natal a sugar refinery is "an absolutely unnecessary excrescence," and said that direct consumption sugar should be produced in the factories themselves. This view hardly agrees with that of Mr. Fairrie!

* * *

MESSRS. JAMES NOURSE, LTD., announce that until further notice the rates of freight for June-October shipments from Calcutta and Rangoon to the West Indies are 60s. per ton for rice and dhall, and 65s. for gunnies. Cargo is accepted for Jamaica, Trinidad, Barbados, Martinique, Guadeloupe, Porto Rico, and the Dominican Republic. In the case of Demerara and Surinam, an additional 10s. per ton is charged for transhipment.

* * *

A REPORT in the daily Press to the effect that school children in the United States are being recruited to assist in fighting the cotton-woevil, whose depredations threaten the whole of the southern cotton crop, produces from *Punch* the following little parody:—

Up and down the cotton lands,
Stamping out the evil,
See the little warrior-bands—
Pop goes the weevil!

* * *

THE four articles descriptive of the recent visit of the Colonial Office Mission to the West Indies, which Major W. Ormsby Gore, M.P., contributed to *The Times*, have now been reprinted in pamphlet form under the auspices of The West India Committee, with the title, "The West Indies To-day." Copies will be sent free to members of The West India Committee, who apply to the Committee

Rooms, 15, Seething Lane, E.C., sending 1d. stamp to cover postage.

* * *

MISS PICTON-TURBERVILL, O.B.E., who, as reported in the CIRCULAR of March 2nd, recently visited Jamaica on behalf of the Young Women's Christian Association, has returned to England. She is reported to have secured promises of considerable financial assistance towards the establishment of a local Y.W.C.A. Through the untiring efforts of Lady Probyn, wife of the Governor, sufficient funds have now been collected for the purchase of a house in Kingston, which will be the headquarters of this much-needed society.

* * *

AN illustration of the change in the world's condition is afforded by the publication of the Customs Tariff of Palestine by the Department of Commerce and Industry of that country. The tariff is a drastic one. Shaving brushes are not allowed to be imported at all from some countries, and those from Europe have to be inspected by the medical authorities before passing the Customs. Bees also have to produce the certificate of a competent agriculturist in their country of origin that they are in good health before being allowed to land.

* * *

THE high opinion formed by the CIRCULAR of "Day Dreams," the song composed last year by Major Jervis-Read, has been endorsed by the Royal College of Musicians, who have set it for their examination. Major Jervis-Read, who, it will be recalled, served in the British West Indies Regiment during the war, has recently brought out several new works, including "Little Preludes" for the piano, "Two Songs for Children," and "Limehouse Wharf," all published by Elkin & Co. The first-named are simple but interesting. "Limehouse Nights," as its title suggests, is a rousing baritone song, after the style of a sea-chaunt.

* * *

ACCORDING to the *Australian Sugar Journal* of March 10th, the Hon. A. S. Rodgers, who, as Minister of Trade and Customs, presides over the proceedings of the Commonwealth Sugar Council, has refused to listen to the resolution recently passed by the Australian Sugar Growers' Association on the subject of the extension of the agreement between the Government and the sugar producers. He said that he was not in a position to give any assurance as to its continuance, but that he advised the delegates carefully to consider the possibility of a satisfactory alternative being substituted later on, as the views of the Government trended rather to increased tariff protection than to the extension of the agreement.

* * *

ONE of two Ipswich visitors who have been staying in Trinidad, and giving his impressions to the readers of the *East Anglian Daily Times*, calls attention to the limited number of British cars in that island. He writes: "The finest car on the island is a beautiful six-cylinder Wolseley, belonging to the Governor. This has no number plate, but a crown-stencilled on a plate. There is also

a little Stellite and a Ruston-Hornsley, but British cars are not represented at all really. I have seen a few motor-cycles and a scooter going strong, ridden by a lady. A favourite American car here seems to be the Dodge Brothers' car, of which there are a great number, and all appear to be as reliable and to be giving as good service under the conditions here as they do in England."

* * *

MR. W. R. MURRAY, of Kelso, a well-known Border farmer, who recently returned from a visit to the West Indies, has been describing his experiences in *The Kelso Chronicle*. He writes with enthusiasm, and proves himself to be an observant tourist and a patriotic Scotsman who was duly impressed by the number of his countrymen whom he met in Trinidad, where "There are more Scotsmen and Scots money . . . than in any other of the British Antilles," and where "nearly all the business houses in Port of Spain bear Scottish names." He was indeed told that nearly all the principal planters all over the island were Scots or of Scottish descent. He hopes before long to return to the West Indies to demonstrate the value of a motor soil-tiller and cultivator in which he is interested.

* * *

COLONEL AMERY, M.P., explained to a meeting of Empire Journalists, at which the CIRCULAR was represented, on May 4th, the objects of the Overseas Settlement Bill now before Parliament. The Imperial Parliament will vote £3,000,000 a year for sending and settling men, women and children overseas, the arrangement being that such emigrants shall only be assisted when they are accepted as suitable by the Dominions participating in the scheme, or by organisations authorised by them, such Dominions to meet half the expense of passages, settlement, etc. The proposals apply equally to the colonies not possessing responsible Government, and it would be open to any West Indian Government to devise some means for settling white men as small farmers if the funds were forthcoming.

* * *

THE C.P.R. steamer *Montezuma*, which, as announced in last CIRCULAR, will leave Montreal on May 15th for Bermuda, Barbados, Trinidad and British Guiana, to inaugurate a new service between those ports, is one of the most modern steel cargo ships. Built in the Armistice year, on the Clyde, she has a carrying capacity of 6,500 tons. The passenger and freight service maintained by the s.s. *Sicilian* between St. John, Boston, Havana and Jamaica, and the cargo service offered by the *Montezuma*, should prove of great importance in relation to Canadian trade with Cuba and the West Indies. The Canadian Pacific *Sicilian* also offers a delightful holiday for Canadians, combining at it does an opportunity to visit the new trade markets and to enter into direct and personal relations with merchants and importers.

STEWED COCO-NUTS.—Break off the shell and divide the coco-nuts in four, then tie up the pieces in a bag and let them stew in the tayche of sling (if you have one) until done.

THE WEST INDIA COMMITTEE.

(Incorporated by Royal Charter.)

The Report of the Executive Committee for the year 1921, to be laid before the Annual General Meeting, at 3 p.m., on May 26th, 1922.

The Executive beg to present to the members of The West India Committee their Annual Report, the Statement of the Income and Expenditure Account for the year ended December 31st, 1921, and the Balance Sheet, duly audited by Messrs. Price, Waterhouse & Co.

FINANCIAL POSITION.—For the first time for six years the annual accounts show a small credit balance, the surplus of assets over liabilities on 31st December being increased to £1,588 *rs. id.* This was attributable in part to the interest from the investment representing the Endowment Fund. Owing to the circumstances set out below it has not yet been possible to secure more convenient premises for The West India Committee, and it may be noted that the rent of those now occupied has been raised to three times the figure at which it stood before the war. In this connection the Committee wish to emphasise the fact that The West India Committee is the only organisation of the kind in the United Kingdom which has not increased its pre-war rate of subscription.

MEMBERSHIP.—During the year 281 new members were elected, bringing the total membership of The West India Committee to 2,277, which constitutes a fresh record. The Committee feel, however, that it is still far below the figure at which it should stand, and they confidently hope that members will help to increase it by introducing eligible candidates for election. The number of new members admitted in 1904 and in each of the seventeen years since the grant to The West India Committee of the Royal Charter of Incorporation in that year is shown below:—

1904 ... 312	1910 ... 157	1916 ... 108
1905 ... 134	1911 ... 128	1917 ... 152
1906 ... 150	1912 ... 146	1918 ... 222
1907 ... 141	1913 ... 122	1919 ... 242
1908 ... 180	1914 ... 81	1920 ... 419
1909 ... 155	1915 ... 120	1921 ... 281

OBITUARY.—The Executive record with deep regret the death of Sir William Trollope, Bart., a member of the Executive, and of Mr. Edgar Tripp, for many years their valued Hon. Correspondent in Trinidad, and of the undermentioned members of The West India Committee:—

Mr. François Agostini.	Mr. Luke M. Hill, M.L.C.E.
Mr. A. W. D. Alexander.	Mr. J. E. Lickfold.
Mr. R. Bruce Archibald, J.P.	Mr. Lee Lam.
Hon. E. G. Bennett, K.C.	Mr. J. A. Mahon.
Mr. W. A. Borell.	Mr. S. V. Meggs.
His Honour Mr. Justice N. F. Briggs.	Mr. W. Morison.
Sir Charles Bruce, G.C.M.G.	Mr. H. E. Murray.
Mr. J. D. Smart Dalgleish.	Sir Bernard Oppenheimer, Bart.
Mr. A. K. F. Duncan.	Mr. F. Petford.
Mr. David Findlay.	Mr. Hamilton Rolfe.
Mr. Thomas Flood.	Sir Joseph Savory, Bart.
Mr. M. A. French, J.P.	Mr. E. C. Skinner.
Mr. James Gilbert.	Mr. M. G. F. Temple.
Sir G. Aubrey Goodman.	Mr. Arthur Wakefield.
Mr. J. P. Gunn-Munro.	Mr. E. U. Wing.
Mr. Sholto H. Hare.	Mr. C. Guy A. Wyatt.
Mr. H. P. Hewitt.	

ENDOWMENT FUND.—At the close of the year the total of the Endowment Fund, which was opened in 1910 with the object of providing for increased secre-

tarial assistance and more convenient premises, stood at £23,671 *8s. 10d.* Owing, however, to the great increase in rents in the City of London, it has not yet been possible to carry out the full programme which the Committee have in view. The contributions received have been invested in the 5 per cent. War Loan, 1920-47, and show a large increase in value over the purchase price. The Committee express the hope that in view of the fact that the annual subscription has been maintained at its pre-war figure, members will not regard the fund as closed, but will continue to support it by further donations.

THE WEST INDIAN CONTINGENT FUND.—The Executive continued to administer the balance of the funds of The West Indian Contingent Committee, which was disbanded in January, 1920. At the close of the year there remained a balance of £8 17*s. 11d.* unexpended. This account has since been closed, as will be noted from the statement appended to this report.

SPECIAL FUNDS.—The receipts and payments under this heading in the accounts indicate the multiplicity of matters dealt with by the Committee, apart altogether from their regular work. Personal service has become a steadily-increasing feature of the activities of the Committee, which, it is believed, is much appreciated.

ANNUAL MEETING AND ELECTION OF OFFICERS.—The report and accounts for the preceding year were adopted at the annual meeting, which was held on May 26th. At a subsequent meeting of the executive, pursuant to Article 5 of the Royal Charter of Incorporation, Mr. R. Rutherford was elected Chairman, Mr. Cyril Gurney Deputy-Chairman, and Mr. William Gillespie, Mr. Thomas Greenwood, Mr. E. A. de Pass, and Mr. H. F. Previté were elected Hon. Treasurers for the ensuing year.

BANQUET TO H.R.H. THE PRINCE OF WALES, K.G.—His Royal Highness the Prince of Wales, K.G., was graciously pleased to honour The West India Committee by his presence at a banquet at the Hyde Park Hotel on June 24th, at which the Right Hon. the Earl of Harewood, K.C.V.O., President of the Committee, presided. The distinguished company present included the Right Hon. Winston S. Churchill, P.C., M.P., Secretary of State for the Colonies, and representatives of the various Government Departments. A full report of the proceedings was published in THE WEST INDIA COMMITTEE CIRCULAR (Vol. xxxvi. p. 271). This historical function had an interesting parallel in the banquet given by the Committee to His Royal Highness's great-great-great uncle the Duke of Clarence (afterwards His Majesty King William IV.) and the Duke of York. The arrangements for the banquet in 1921 were carried out by a committee comprising Mr. R. Rutherford, Mr. Cyril Gurney, Mr. W. Gillespie, Mr. Thomas Greenwood, Lieut.-Colonel G. A. O. Lane, Mr. E. A. de Pass, Mr. H. F. Previté, and the Secretaries.

BETROTHAL OF PRINCESS MARY.—On the announcement of the betrothal of Her Royal Highness Princess Mary to Viscount Lascelles, son of the Right Hon. the Earl of Harewood, K.C.V.O., President of The West India Committee, it was decided that it would be desirable to mark the Committee's gratification on this auspicious occasion by offering to Her Royal Highness a wedding gift. Contributions towards this object were accordingly invited at the close of the year.

COLONIAL OFFICE MISSION TO WEST INDIES.—The announcement that the Right Hon. Winston Churchill, P.C., M.P., had requested the Hon. Edward Wood, M.P., Parliamentary Under-Secretary of State for the

Colonies, to visit the British West Indies, British Guiana, and British Honduras on his behalf, and to investigate on the spot the various problems affecting the welfare of those Colonies, was received with general satisfaction. Mr. Edward Wood on October 27th received at the Colonial Office the members of the Executive, who took the opportunity of submitting to him their views regarding various matters affecting the West Indies. Mr. Wood, accompanied by Mr. R. A. Wiseman, Principal of the Colonial Office, and Major W. Ormsby Gore, M.P., left Avonmouth for Jamaica on November 29th. It is much to be regretted that, owing to an outbreak of fever, the Colonial Office Mission should have been prevented from visiting British Honduras on this occasion, but the Committee hope that it may be possible for some official of the Colonial Office to proceed to that Colony to investigate its economic condition.

GOVERNOR OF TRINIDAD.—Sir Samuel Wilson, K.B.E., C.B., C.M.G., attended a meeting of the Executive on December 15th, when the opportunity was taken of discussing many matters affecting the welfare of the Colony to which he proceeded on December 21st.

INCOME TAX LEGISLATION.—West Indian Income Tax Legislation received the close and constant attention of the Committee. Prior to the passing of the Finance Act of 1920 of Great Britain and Ireland, the Governments of those Colonies which had accepted the principle of direct taxation overcame the difficulty of double taxation within the Empire by excluding from the provisions of their Income Tax Acts and Ordinances non-resident companies and individuals. Section 27 of the Imperial Act provided that relief from the United Kingdom Income Tax should be given to any person who had paid Dominion Tax in respect of the same part of his income, such relief to be on the following basis:—

(a) If the Dominion rate of tax did not exceed one-half of the appropriate rate of United Kingdom tax, the rate at which relief was to be given was to be the Dominion rate of tax.

(b) In any other case the rate at which relief was to be given was to be one-half of the appropriate rate of United Kingdom tax.

The various West Indian Colonies above referred to thereupon took the opportunity of bringing non-resident companies and individuals within the scope of their Income Tax Legislation. Many complaints having been received that owing to basic differences between the Income Tax Acts and Ordinances of the Colonies and the Finance Act of the United Kingdom, the declared object of benefiting the revenue of the Colony without subjecting companies and individuals to double taxation was unlikely to be attained, an Income Tax Sub-Committee was appointed in February, comprising Mr. H. J. J. Freeman, F.C.A., Mr. N. Malcolmson, O.B.E., Captain G. Hudson Lyall, M.B.E., Mr. R. O. Longcroft, and Mr. A. O. Chudleigh, F.C.I.S., F.I.L.A., to consider the whole question in all its aspects. The Trinidad Ordinance No. 54 (1920) in particular was subjected to adverse criticism, and in view of the great complexity of the whole subject, it was decided to obtain the advice of Mr. A. M. Lister, a counsel recognised as an Income Tax authority of high standing, and his opinion, which was drawn up in consultation with the Sub-Committee, was subsequently embodied in a letter addressed to the Secretary of State for the Colonies and published in THE WEST INDIA COMMITTEE CIRCULAR (Vol. xxxvi. p. 344). Acknowledging this letter on August 12th, Mr. Churchill stated that it had been

forwarded to the Governor of Trinidad with a recommendation that the Committee's views might receive careful consideration when the Income Tax Ordinance for the ensuing year was drafted. The Committee similarly called attention to certain objectionable clauses in the Grenada Income Tax Ordinance, and urged very strongly that an effort might be made to secure greater uniformity in the scope and character of the various Income Tax Acts and Ordinances throughout the British West Indies. This was again emphasised in a Memorandum forwarded to the Secretary of State for the Colonies on December 7th, wherein it was urged that Income Tax assessments might be made in the country in which the taxpayer had his residence or principal place of business. The Committee further urged that an Inter-departmental Committee, comprising representatives of the Colonial Office, the Board of Inland Revenue, and of the commercial interests involved, might be appointed to consider the whole question.

CERTIFICATES OF ORIGIN.—It appearing that much inconvenience was being caused through the lack of uniformity characterising the Certificates of Origin required by the various West Indian Colonies and British Guiana in connection with their Preferential Tariffs, the Committee strongly urged that a uniform form of Certificate of Origin might be adopted throughout the West Indies. The Secretary of State subsequently recommended to the West Indian Colonies the adoption of the form of Certificate of Origin prepared by the Imperial Customs Conference, at which the non-self-governing Colonies were represented by Mr. T. F. Burrowes, C.B.E., formerly of British Guiana.

THE WEST INDIAN AGRICULTURAL COLLEGE.—During the year the Agricultural College Committee, which was originally appointed by Viscount Milner, the then Secretary of State for the Colonies in 1919, and had reported in favour of the establishment of an Agricultural College in the West Indies, was called together again, their proposals having proved acceptable to a majority of the West Indian Colonies. The West Indian Agricultural College was incorporated under the Companies Acts as a Company Limited by Guarantee on September 9th, 1921. The Committee very gladly gave their consent to their Rooms becoming the Registered Office of the College, and approved the appointment of Mr. R. Rutherford to represent them on the Governing Body, to whom Mr. Aspinall was appointed Secretary. Before the close of the year it was decided that the West Indian Agricultural College should be amalgamated with the Imperial Department of Agriculture, and the Committee believe that the work of this joint organisation should prove of great value to the West Indian Colonies which are so largely dependent upon agriculture for their prosperity.

TRANSATLANTIC STEAMER COMMUNICATION.—In February the Secretary of State for the Colonies intimated that if he could obtain the concurrence of the Treasury and of the Governments of Barbados, Trinidad, and British Guiana, he proposed to invite tenders for a Transatlantic Steamship Service between England and those Colonies, or any two of them. The Trinidad Government, however, decided not to participate, and the proposals were accordingly dropped. The Committee still attach much importance to the question of British steamship communication, believing it to be a matter of Imperial concern. Meanwhile, the needs of all the West Indian Colonies concerned were to a great extent met by the cargo and passenger steamers of Messrs. Thos. and Jas. Harrison, which, it will be

recalled, were placed on the route at the request of the Committee, and, provided that arrangements can be made for these vessels to sail at regular dates, steamers of the type now used should meet all immediate requirements.

THE HAGUE RULES.—The Committee had under discussion the Hague Rules which had been adopted by the Maritime Law Committee of the International Law Association, in meeting at the Hague on September 3rd, 1921, with the object of defining the risks to be assumed by sea carriers under bills of lading. Copies of the rules were sent to the various West Indian Chambers of Commerce, and they were eventually approved in principle by the Committee, which recognised them as a basis for the settlement of the respective liabilities and rights of shipowners and merchants under bills of lading.

POSTAL RATES.—A heavy increase in postal rates on printed matter being threatened, the Committee invited the Royal Colonial Institute, the Over-Seas Club, and other patriotic institutions to co-operate in protesting against it. A memorial was subsequently addressed to the Postmaster-General, who withdrew his proposals in this connection.

TELEGRAPHIC COMMUNICATION.—No steps were taken to give effect to the recommendations of the delegates to the Ottawa Conference of 1920, which were appended in the form of a Declaration to the Trade Agreement between Canada and the British West Indian Colonies, signed on June 18th in that year. The delegates supported the views so often emphasised by the Committee, that the situation could best be met by laying new cables from Bermuda to Barbados, Trinidad, and Demerara, and linking up the smaller islands by cables and wireless.

FREIGHT RATES.—A delegation of the Committee met representatives of the steamship companies trading with the West Indies in conference on January 17th, and urged the imperative need for a reduction in freight rates. This matter was also the subject of considerable correspondence with the shipping companies and with the Association of West India Trans-Atlantic Steamship Lines throughout the year, and reductions in freight rates were made from time to time.

DEFERRED REBATES.—The Committee having been invited by the Imperial Shipping Committee to submit to them their views regarding the Deferred Rebate system, after full discussion submitted a memorandum in which they called attention to the disadvantages arising from the West Indian shipping companies granting deferred rebates. This memorandum was published in THE WEST INDIA COMMITTEE CIRCULAR (Vol. xxxvi. p. 6).

IMMIGRATION.—The question of the resumption of East Indian immigration to British Guiana and the British West Indies, to which reference was made in previous reports, was carried a stage further by the arrival in the United Kingdom of a delegation representing the Indian Government, and comprising Mr. Gerald Francis Keatinge, C.I.E., of the Indian Civil Service, the Dewan Bahadur P. Kesava Pillai, M.L.C., Deputy-President of the Madras Legislative Council, and Pandit Venkateah Narayan Tiwary of Allahabad, who were to proceed to British Guiana and Trinidad and to report on the conditions there prevailing, with a view to enabling the Indian Government to decide whether it would be desirable to sanction emigration to those Colonies.

SUGAR CONTROL.—The decontrol of sugar, for which the Committee had continued to press, was finally

effected in February, and the Royal Commission on the Sugar Supply ceased operations, except as regards the disposal of sugar still on hand, on the 28th of that month.

SALE OF SUGAR.—The Committee did not see their way to agree to a proposal that in future the number of bags of sugar sold publicly, or privately, in London should be 50 instead of 30 as heretofore, excepting in the case of original imports of a smaller amount.

ADMIRALTY SUGAR PURCHASES.—The Committee urged that in the matter of the sale of sugar to the Government for Admiralty purposes, the pre-war practice should be reverted to, namely, that the sugar should be put up to auction and that the Government brokers should invite the West Indian brokers to submit samples from time to time, and that where sugars to arrive were to be bought, these should similarly be offered by sending average samples of suitable marks.

POWER ALCOHOL.—The Committee continued to urge that alcohol imported for power purposes might be duty free. The Finance Act provided for the removal of all duty from power alcohol. The regulations under the Act laid down, however, that alcohol for power purposes imported from overseas must be denatured by a licensed methylator in the United Kingdom before it could be used. Moreover, the Finance Act provided that a bonus of 5s. per proof gallon should be given to producers in the United Kingdom of spirit for power purposes, presumably to compensate them for the alleged excise disabilities to which they are subject, and thus, although colonial spirit for power purposes is not subjected to a surtax, it is placed at a disadvantage as compared with spirit distilled in the United Kingdom.

RUM OBSCURATION.—The question of rum obscuration formed the subject of negotiations with the rum section of the Wine and Spirit Association, which pressed for an increased allowance by the merchants to compensate for the loss of duty sustained by reason of excessive obscuration. It was eventually agreed that the allowances for obscuration should be a penny per shilling of the bonded price per proof gallon for every degree of obscuration in excess of two degrees, the allowance for tenths of a degree over two degrees to be in proportion, with the reservation that should the price of rum fall to such an extent as to be out of proportion to the duty, the trade to retain the right to re-open the matter.

IMMATURE SPIRITS (RESTRICTION) ACT.—It appearing that there were now ample supplies of rum in the United Kingdom for full compliance with the terms of the Immature Spirits (Restriction) Act, it was decided not to press for a further concession in regard to age. The concession was, however, renewed, the bonding period being fixed at eighteen months.

JAMAICAN AFFAIRS.—The Committee kept in close touch throughout the year with the Jamaica Imperial Association. At the request of that organisation, and following a meeting of the Jamaica Standing Committee, Mr. E. A. de Pass, Mr. H. Crum Ewing, and the Secretary accompanied Mr. Robert Craig, Mr. A. H. D'Costa, Mr. W. Morrison, and Mr. Ernest Kerr, delegates of the Association, to the Colonial Office and represented to the Under-Secretary of State and the Assistant Secretary the urgent need of securing curtailment of expenditure in Jamaica in view of the serious financial position of the colony. A memorandum embodying the various points raised was subsequently forwarded to the Colonial Office, and the

Dr.			SPECIAL FUNDS, Year ended 31st December, 1921.				Cr.
	£	s. d.	£	s. d.		£	s. d.
To Payments during the year—					By Balances as at December		
Shuckleton Sugar Fund	11	14	0		31st, 1920—		
The Bahamas Development Board	15	10	0		Shuckleton Sugar Fund...	11	14
Personal Services	465	10	8		Trinidad Exhibition Account	19	7
The Highway Commissioners, Barbados	88	19	0				30
Purchase of Oil Painting of Governor Henry Worsley	53	8	0				1
Repatriation of distressed West Indians	50	0	0		Received during year—		
Sundry expenses incurred for The West Indian Agricultural College	8	19	0		The Bahamas Development Board, for publicity purposes	50	0
Sundry expenses incurred in connection with Trinidad Ordinance 34, 1920	3	6	6		Princess Mary's Wedding Gift Fund	32	11
				647	7	2	
By Balances as per Balance Sheet, December 31st, 1921—					The Dominica Permanent Exhibition Committee, for expenses of participating in Exhibitions...	100	0
Trinidad Exhibition Account	18	7	6		Joseph Rowntree, Esq., being contribution towards cost of publication of work on Mycology	100	0
The Bahamas Development Board, publicity account	34	10	0		The Highways Commissioners, Barbados, being in connection with the appointment of a City Engineer	78	19
Princess Mary's Wedding Gift Fund	32	11	0		The Government of Barbados, for purchase of oil painting of Governor Henry Worsley	53	8
The Dominica Permanent Exhibition Committee's Exhibition Fund	100	0	0		The Board of Trade, for repatriation of distressed West Indians	50	0
Personal Services Account	922	18	10		The West Indian Agricultural College, for sundry expenses	8	19
Trinidad Ordinance Account	20	18	6		Contributions towards legal expenses re Trinidad Ordinance 54, 1920	24	0
Joseph Rowntree, Esq.	100	0	0		Various sums from Members and others for expenditure in connection with personal services	1,888	4
				1,228	15	10	
							1,846
							1
							6
							£1,876
							8
							0

THE WEST INDIAN CONTINGENT FUND.

Dr.			Final statement of payments for the period from July 1st, 1921, to April 12th, 1922.				Cr.
	£	s. d.	£	s. d.		£	s. d.
Balance at July 1st, 1921	30	2	10		Board and Lodging	9	14
R. RUTHERFORD					Clothing, boots, etc.	3	14
WILLIAM GILLESPIE					Cables	2	7
H. F. PREVITE					Printing	1	5
ALGERNON ASPINALL					General Expenses	18	0
<i>Hon. Sec.</i>					Gift to man in hospital	11	6
					Gratuities to ex-Service men	11	12
							2
							£30
							2
							10

We have examined the above Account with the Books and Vouchers, and certify it to be correct.

3, Frederick's Place,
Old Jewry, E.C.2.
May 9th, 1922.

PRICE, WATERHOUSE & Co., Chartered Accountants.
Auditors.

THE WEST INDIA COMMITTEE.

Forty-two New Members Elected.

The monthly meeting of the Executive of The West India Committee was held on May 4th, Mr. Robert Rutherford (chairman) presiding. The other members present were : Mr. Cyril Gurney (Deputy Chairman), Mr. H. F. Prévité (Hon. Treasurer), Mr. S. Cameron, Sir Edward Davson, Lieut.-Colonel Ivan Davson, O.B.E., Mr. Humphrey Crum Ewing, Mr. W. Fawcett, B.S., Mr. G. MacGregor Frame, Mr. H. J. J. Freeman, Mr. T. Harrison Hughes, Lieut.-Colonel G. A. O. Lane, Mr. Norman Malcolmson, O.B.E., Mr. R. M. Parker, Mr. G. Moody Stuart, and Mr. F. H. Watson. Mr. A. W. Farquharson was prevented from being present owing to a severe cold.

The following resolution, moved by the chairman and seconded by the deputy chairman, was carried unanimously :—

“ That the Executive of the West India Committee welcome the visit of Mr. A. W. Farquharson, Chairman of the Jamaica Imperial Association, to this country, tending as it will to stimulate the interest shown by various Departments of State in Jamaican affairs, and while regretting his inability to be present, owing to indisposition, desire to assure him of the value which the Committee attach to co-operation between them and the Association of which he is Chairman.”

The Committee then dealt with a long and varied agenda. In response to an invitation from Mr. Churchill, the Chairman and Secretary were nominated as the Committee's representatives on a Departmental Committee to consider the question of West Indian Currency. Amongst other matters discussed were the question of the admission at preferential rates of cacao and other dutiable articles shipped on optional bills of lading; the sugar and spirits duties, with special reference to the Budget statement; hurricane and earthquake insurance; Indian immigration, and the New Trinidad Income Tax bill.

The following candidates were admitted to membership of The West India Committee, making the total number of members elected this year 84.

Names.	Proposers and Seconders.
The Hon. Henry de Minville (St. Lucia).	Hon. G. Laflitte, J.P.
Mr. T. P. Evelyn (Jamaica).	Mr. Henry Devaux, J.P.
Mr. Louis A. Hamilton (Jamaica).	Mr. A. L. Evelyn.
Messrs. J. L. Wild & Co., Ltd. (London).	Mr. H. Berger.
Mr. T. Jobson (Brazil).	Mr. H. Crum Ewing.
Mr. R. J. Burrell (Country).	Mr. Cyril Gurney.
Lt.-Col. A. C. Macdonald, D.S.O., M.Inst.C.E. (London).	Mr. R. Rutherford.
Mr. L. R. Sharples, M.B., Edin. (British Guiana).	Mr. H. Crum Ewing.
	Mr. Arthur E. Morrish.
	Mr. Alfred J. Watts.
	Mr. George Moody Stuart.
	Mr. R. Rutherford.
	The Hon. C. Clementi, C.M.G.
	Mr. R. Rutherford.
	Dr. Q. B. de Freitas, M.R.C.S., L.R.C.P.
	Dr. C. J. Gomes.

Names.	Proposers and Seconders.
Mr. D. Ransch (British Guiana).	Mr. I. Lywood.
Mr. Albert Stewart (Trinidad).	Mr. John Macdonald.
Mr. J. Hamlyn Hoadley (Trinidad).	Mr. Alick G. Hamlyn.
Mr. L. L. Roberts (Trinidad).	Mr. John Grant.
Mr. J. W. Fraser (British Guiana).	Mr. Alick G. Hamlyn.
Mr. A. Hamilton Roberts (Trinidad).	Mr. John Grant.
Mr. J. B. Lsing (London).	Mr. A. F. A. Clairmonte.
Mr. William Mackay (Trinidad).	Mr. Henry H. Baird.
Mr. Southby Howitt (London).	Mr. A. F. A. Clairmonte.
Mr. John H. Peach (British Honduras).	Mr. Henry H. Baird.
Mr. J. Herbert Poole (Trinidad).	Mr. A. F. A. Clairmonte.
Mr. A. Clayton Smith, M.C. (Trinidad).	Mr. Henry H. Baird.
Mr. James Forbes (Trinidad).	Mr. Thomas Smellie.
Mr. A. G. P. Blair (Trinidad).	Mr. Paul Cressall.
Mr. R. H. Black (Trinidad).	Mr. Frank H. Johnson.
Mr. G. T. Rock (Trinidad).	Mr. Thomas Boyd.
Mr. William Somerville (Trinidad).	Captain A. R. Fellowes.
Mr. Lewis O. Inniss (Trinidad).	Mr. R. Rutherford.
Mr. Alexander Gordon (Trinidad).	Mr. Henry S. Schnarr.
Mr. Noel W. J. Miller (Trinidad).	The Hon. James Craun, O.B.E., M.D.
Mr. Alexander Mathison (Trinidad).	Mr. Alick G. Hamlyn.
Mr. W. Douglas Inniss, M.A. (Trinidad).	Mr. Arthur J. Hamlyn.
Messrs. Gramum & Co. (Barbados).	Mr. Alick G. Hamlyn.
Mr. E. H. Biffen (Barbados).	Mr. W. Robertson.
Mr. J. C. Ginder (Country).	Mr. Alick G. Hamlyn.
His Grace the Archbishop of the West Indies (Antigua).	Mr. Arthur J. Hamlyn.
Mr. Conway E. Steele (Africa).	Mr. Alick G. Hamlyn.
Messrs. Andrews, Gillespie & Co. (Liverpool).	Mr. James Fraser.
Capt. Thomas H. Irving (British Guiana).	Mr. Alick G. Hamlyn.
Mr. E. S. Mason (Barbados).	Mr. Arthur J. Hamlyn.
Mr. Roger de Verteuil (Trinidad).	Mr. Henry H. Baird.
Mr. H. F. Pilgrim (Trinidad).	Mr. A. S. Bryden.
Mrs. Hannan (New York).	Mr. J. W. Pearl.
Major N. Godfrey Pigott (Country).	Mr. J. H. Wilkinson.
	Lieut.-Colonel Ivan Davson, O.B.E.
	Mr. H. F. Prévité.
	Mr. R. Rutherford.
	Mr. Cyril Gurney.
	Mr. W. M. Steele.
	Mr. C. V. C. Horne.
	Messrs. Sandbach, Tinné & Co.
	Mr. W. Gillespie.
	Mr. F. I. Scard, F.I.C.
	Mr. E. M. Walcott.
	Mr. M. H. Smith.
	Mr. S. Brown.
	Mr. C. P. Rojas.
	Mr. Alexander Rae.
	Mr. Frank C. Hutson.
	Mr. A. C. Broughton, A.M.I.M.E.
	Mr. Fred Driver.
	Mr. George Moody Stuart.
	Mr. R. M. B. Parker.
	Mr. H. F. Prévité.

THE BUDGET.

Sir Robert Horne, M.P., Chancellor of the Exchequer, making his Budget statement in the House of Commons, on May 1st, showed that the actual revenue and expenditure for 1921-22 and the estimates for 1922-23 were as follows:—

Actual—1921-22.		
Revenue ...	...	£1,124,880,000
Expenditure ...	...	£1,079,187,000
Surplus ...	...	£45,693,000
Estimates—1922-23.		
Revenue ...	...	£956,625,000
Expenditure ...	...	£910,069,000
Surplus ...	...	£46,556,000

His proposals for changes in taxation are set out below:—

CUSTOMS AND EXCISE.

		Existing Duties.		Proposed Duties.	
		Full Rate.		Full Rate.	
		£	s. d.	£	s. d.
Customs—					
Tea ...	lb.	0	1 0	0	0 8
Cocoa ...	cwt.	2	2 0	1	8 0
Husks and Shells ...	cwt.	0	6 0	0	4 0
Butter ...	lb.	0	0 4	0	0 3
Coffee:—					
Not kiln-dried, roasted or ground	cwt.	2	2 0	1	8 0
Kiln-dried, roasted or ground	lb.	0	0 6	0	0 4
Coffee and Chicory:—					
Roasted and ground, mixed	lb.	0	0 6	0	0 4
Chicory:—					
Raw or kiln-dried	cwt.	1	0 8	1	5 6
Roasted or ground	lb.	0	0 6	0	0 4
Preferential rate on above to remain five-sixths of full rate as at present.					
Excise—					
Chicory:—					
Raw or kiln-dried	cwt.	5-6ths of 1 18 6		1	1 1
Coffee or Chicory substitutes or any mixture of such substitutes with Coffee or Chicory	1-lb. cwt.	5-6ths of 11s. 2d. to £1 3s. 4d.		Excise duty repealed.	
Sugar: varying	cwt.	5-6ths of 4s. 9½d. to 13s. 6d.		Excise duty repealed.	
Molasses: varying	cwt.	5-6ths of 4s. 9½d. to 13s. 6d.		Excise duty repealed.	

POSTAGE, &c., RATES.

	Present Rates.	Proposed Rates.
Inland Letters ...	Not exceeding 3-oz. 2d.	1-oz. 1½d. 3-oz. 2d.
Letters to the British Possessions generally, the United States of America, and British Postal Agencies in Morocco.	For every addtl. oz. ½d. Not exceeding 1-oz. 2d. For every addtl. oz. 1½d.	½d. 1½d.
Inland Postcards ...	1d.	1d.
Inland Printed Papers*	Not exceeding 2-oz. 1d. For every addtl. 2-oz. up to 2-lb. 4d.	1-oz. ½d. 2-oz. 1d. ½d.

* The reduction in the rate for printed papers will be accompanied by some limitation of the hours of posting at the reduced rate, in accordance with the recommendation of the Committee on National Expenditure (Cd. 1589).

In addition, there will be certain reductions in telephone charges.

The Cost of Reduced Taxation was given as follows:

	1922-23.	Full-year
Reduced Tea Duty ...	£3,400,000	£4,300,000
" Cocoa " ...	440,000	480,000
" Coffee " ...	140,000	155,000
" Chicory " ...	20,000	22,000
Reduced Income Tax	32,500,000	32,000,000
Other Income Tax Changes	700,000	1,700,000
Excess Profits Duty	2,000,000	—
Postal Reductions ...	1,850,000	5,550,000*
Telephone Reductions ...	800,000	1,000,000
Total ...	£45,850,000	£46,707,000

* The total loss is estimated to amount to £5,000,000, of which £2,000,000 will affect 1922-23 and the balance subsequent years.

† These reductions, with the proposed cost of restoring Sunday collections, represent the surrender out of the Post Office surplus on the commercial account basis of about £7,400,000 for a full year and about £6,250,000 in 1922-23.

SUGAR REFINERS' BITTER CRY.

Fear of Direct Consumption Sugar.

Sir Robert Lyle, Chairman of Tate & Lyle, Ltd., and President of the Sugar Refiners' Association, in a letter published in *The Times* of 10th April protested against the removal of the Excise Duty from home-grown sugar.

"The sugar refining industry of the United Kingdom is an old and honourable one. It flourished in the middle of last century, when there were many refineries in each of the ports of London, Liverpool, and Greenock, and others in Glasgow, Bristol, Leith, Plymouth and Dublin. Then came the ruinous competition developed under the unfair bounty system adopted by France, Germany, Holland, Belgium, Austria, and other Continental sugar-producing countries. The weaker and less well managed of our refineries gradually went down, until in the early days of this century, when the bounty system was abolished by the Brussels Convention in 1903, there remained in active operation only twelve refineries, and their output represented but a small proportion of the sugar consumed in this country.

"Since 1903 the surviving refiners, freed from the unfair bounty-fed competition, have been able to hold their own and to increase their output, and in 1914 they were supplying a much larger proportion of the sugar consumed in this country than was the case in 1903.

"On the outbreak of war the sugar refining industry was taken under Government control, and that control continued until February 26th, 1921. While other manufacturers, merchants, shipowners, and the sugar producers of the Colonies were free to make, and did make, huge profits, the refiners were restricted to a rate of profit per ton based on the average profits of the three years immediately preceding the war. Owing to shortage of labour and other causes, some refineries could not always reach their pre-war output, and so, at times, did not reach their pre-war profits. The refiners did not complain. They worked hard and loyally and for the Royal Commission on the Sugar Supply, and the importance of their services has been acknowledged by that body.

"Owing to the present enormous duty the con-

sumption of sugar in this country is much less to-day than it was in 1913. The home refiners can supply all the refined sugar required by the nation, and, should the duty be lowered and consumption increase, the refiners would willingly increase their plants to meet the increase, provided they were given some assurance that they will receive fair and equal treatment with the other sugar interests of the Empire.

"To-day Canada, the West Indies, Demerara, Natal, and Mauritius can, and do, send direct-consumption sugars to this country to compete with the home refiners under a preferential tariff that gives the former an advantage over the latter of over £4 per ton. The advantage enjoyed by the beetroot sugar factories at Kelham and Cantley is greater still, and the latter is, or was, owned largely by Dutchmen. Now it is announced that the Government propose to grant entire freedom from Excise to home-grown sugar. This means that the factories named will enjoy, so long as the present rates of duty hold, an advantage over the British sugar refiner of £25 18s. 4d. per ton, or 2½d. per lb., an unprecedented and undreamed of and staggering amount of protection.

"Personally I do not believe that sugar produced from the sugar beet in Europe will ever again be able successfully to compete with cane sugar as produced in Cuba, Java, or Peru. But if the Government and Parliament wish to continue the costly and doubtful experiment of producing sugar at home, let them do so in a way that does not mean the extinction of an old and, nowadays, firmly established home industry. The way to do this is to grant whatever preference is deemed necessary on raw sugar only—say on sugar not over 87 deg. polarisation or 94 deg. net analysis. Such sugar would be taken by the refineries at its full world's market price, the cultivation of the sugar beet would be encouraged, less capital would be required in the factories, and the refiners would not suffer. Let it be remembered also (and this is a point that has evidently been overlooked by the Minister of Agriculture and others) that every workman who finds employment by the production of white sugar in a home beet sugar factory throws out of employment one or more of his fellows in the refineries of London, Liverpool, or Greenock.

"The above is also the method in which preference should be given, if it must be given, to the Colonial sugar producer. To give him a preference over the British refiner on direct-consumption sugar simply means encouraging Colonial capital and labour (often coolie labour) at the expense of home capital and home labour. While Natal sugar is to-day enjoying in our markets an advantage over the product of the British refiners of over £4 per ton, the Government of the Union is considering how best to exclude from South Africa the small quantities of our products that find their way there!"

Lord Denbigh's Crushing Retort.

To this Lord Denbigh replied in a letter published on 5th May:—

"The desperate efforts made to bring more land under the plough early in the war are fresh in our recollection, and showed us that foreign nations,

especially the Germans, had been more farsighted than British legislators when they gradually built up a great sugar industry, mainly in the interests of their agriculture. When certain parties here (mere 'optimists' in Sir Robert Lyle's eyes) tried by every means to show their countrymen what dependence on German and Austrian sugar for two-thirds of our supplies would mean in the event of war, we got no help from the refining industry making great profits from the refining of German raw beet sugar.

"Our endeavours only met with doubt and scepticism, coupled with thinly veiled hostility. I often wonder at the reason for this attitude, but now Sir Robert Lyle has released the cat and enlightened us.

"Up to a comparatively recent date, beet sugar factories only turned out the raw sugar, which then had to go to the refiners. In the course of constant developments and improvements in the industry, factories began to appear in which the process of sugar extraction was carried a stage further, resulting in the production of white granulated sugar fit for consumption, without passing through the refiners' hands. This extended process proved remunerative to the factories, and consequently, when it became possible to start a factory in England the improved process was naturally adopted.

"The more profit a factory can make, the more can it afford to pay farmers for their roots. As the welfare and very existence of the industry depends on being able to ensure ample supplies of raw material by offering an attractive price to growers, it is essential that our new factories should be equipped with the latest and economical process.

"Sir Robert calmly suggests that we should revert to an out-of-date method, and, producing raw sugar only, send this to the refiners for treatment. In other words, he says: 'You newcomers are poachers on what have hitherto been our preserves, out of which we have made large fortunes. Give us, however, a bit of the "swag," and then we will say no more about it.' He says that at present every man employed in a sugar-beet factory throws out of work a refinery hand.

"I do not wish to be discourteous, or I might be inclined to use a short and brusque expression. What Sir Robert really means is that every man engaged in improving British agriculture and providing rural employment through the sugar-beet industry may perhaps tend in time to reduce slightly the large profits hitherto made by the refiners. Even this contention I gravely doubt.

"Sir Robert says that the present refiners are quite capable of supplying all the refined sugar required by the nation at present, and that even if the duty should be lowered and consumption increased, they would gladly increase their plants. How kind of them! He says, in effect, that there is, therefore, no necessity for disturbing their present monopoly by adopting a policy to help agriculture and increasing our corn supply.

"But seriously, Sir, to talk of a home-grown industry bringing about the 'extinction' of British refining is too absurd. I suggest that many home factories must arise before Messrs. Tate & Lyle need reduce their dividends on that account, and even if

that deplorable event should eventually come about, there will be little doubt as to which industry is the more valuable to the nation as a whole.

"When we consider that our pre-war consumption of sugar was nearly 2,000,000 tons, and that in 1920 it was nearly 600,000 tons less, there is surely room for a home industry alongside the great refiners.

"If in the next few years we can get twelve factories going, we shall only produce 100,000 tons, but the employment given in the factories in winter and on the land at other times, the thousands of acres kept under the plough, and the large sums circulated in rural districts in the winter months, would surely constitute a national asset that might compare favourably even with an extension of refiners' plant in Liverpool or Glasgow.

"In my humble opinion, it is an asset well worth working for, even in face of the refiners' attitude, which I regret to say lays itself open to a charge of being based on a commercial selfishness very much at variance with what we know are their personal characteristics."

THE WEST INDIAN CLUB.

Colonial Office Mission Entertained.

History repeated itself at the West Indian Club on May 4th, when the Hon. Edward Wood, M.P., was entertained at dinner by the members, Mr. Charles Wood presiding, as he did six months before, when the Parliamentary Under-Secretary of State for the Colonies was given a "send off" just before his departure for the West Indies.

Mr. Charles Wood, in proposing the health of the guests in an amusing speech, said that they all welcomed the members of the Mission back after their travels, and he should like to take the opportunity of congratulating Major Ormsby Gore on his admirable articles on the West Indies in *The Times*. Without wishing Mr. Wood to anticipate his report, he would like to ask him two questions. The first was in the nature of a conundrum. If all the speeches to which he had listened with such patience, and all the answers which he had returned with such courtesy were put end to end, how many times would they stretch round the world? In the second place, he would like to ask Mr. Wood's views as to the respective merits of rum and lime juice (laughter).

If the former, what prospect would he hold out as to a reduction in the enormous handicap under which that delectable beverage laboured in the matter of the spirit duties? They could be certain to expect from Mr. Wood a sympathetic handling of all those problems which had been troubling the West Indies.

Responding to the toast, which was received with enthusiasm, the Under-Secretary of State confessed to finding himself in a position of no little difficulty, for he had hoped that before this date his report on the tour would have been published, whereas now it would not be in the hands of the public for about three weeks, and in the meantime he naturally felt a certain reticence. It was

recorded that on Bishop Creighton's monument was inscribed:—"He tried to write history." Similarly his own epitaph should be:—"He tried to write a West Indian report." Describing the journey, Mr. Wood said that one of his fellow travellers had cautioned him as follows:—"There are a lot of swizzles in the West Indies. It might be well to declare yourself a total abstainer," but he had replied that life was full of difficulties, but this particular difficulty was not to be got over in the way proposed. Continuing, he said that he had learnt a great deal about West Indian problems, many of which were of first-rate importance—two, the economic and the constitutional, being notably so. He had been deeply impressed by what he had seen of the general growth of political consciousness within the great scope of development, not of uniform, but of diverse races. He came back more convinced than ever that the experiment of sending the Mission was a wise one. The chief danger was the impression which he had met in certain quarters that in him they were welcoming a fairy godmother, with "bars of silver and nuggets of gold for distribution," and that the Mission constituted a kind of super-government to be set over those concerned with day-to-day administration. Of the many advantages, the first and foremost was the fuller knowledge of West Indian conditions that they had gained, and with it the fuller sympathy that was the child of riper understanding. It made all the difference to communities as to individuals to know that some other community was keenly interested in their conduct and welfare. He concluded by saying that no one could go to the West Indies without being thrilled with the historical atmosphere with which they were filled, and although he might be sent on missions to other parts of the world, the West Indies would always remain his first love.

Mr. Ormsby Gore, M.P., said that the social and political future of the British West Indies was bound up with the maintenance of a constant stream of men going out from the home country, men who were not only interested in the administration but also in the commerce of the colonies. The West Indies showed true evidence of genuine progress in every way, but the steps by which they advanced must be secured on a satisfactory economic basis, and the main problem was to adjust the burden of taxation with expenditure. British Guiana presented the most fascinating problem of all for the outsider who went to it for the first time, and with its gigantic belt of fertile land lying idle provided the best opportunity for this country to show that she was still in the van of Imperial progress.

Proposing the health of the chairman, the Hon. Gideon Murray, M.P., referred to the question of the preference in the sugar duties, and said that he entirely concurred in the policy of The West India Committee and the British Empire Producers' Organisation, for unless West Indian sugar production was maintained, we in this country would have later to pay dearly for our sugar. Whilst administrative federation was at present out of the question, unless the West Indies could pull

together as regards commercial interests, they would be regarded as nonentities.

The company included: Mr. Bruce Austin, Mr. Claude P. Berthon, Mr. B. Bonyutt, Mr. Roland L. Bryce, Mr. S. Cameron, Mr. H. A. P. Cotton, Sir Edward Davson, Lieut.-Col. Ivan Davson, O.B.E., Mr. Archibald de Pass, Mr. Harold de Pass, Mr. Alexander Elder, Mr. E. B. Ellis, Mr. Frank Evans, Mr. A. W. Fairquharson, Sir William Goode, K.B.E., Major the Hon. W. Ormsby-Cote, M.P., Mr. Thomas Greenwood, Sir Gilbert Grindle, K.C.M.G., Mr. Charles H. Hewett, Mr. A. Hirsch, His Honour Mr. Justice E. C. Jackman, Mr. Picton Jones, Captain Gifford Knight, Sir Frederick Lugard, G.C.M.G., C.B., D.S.O., Mr. R. H. McCarthy, C.M.G., Mr. N. Malcolmson, O.B.E., Mr. F. N. Martinez, Dr. G. B. Mason, Mr. Allen E. Messer, Mr. F. J. Morris, Hon. C. Gideon Murray, M.P., Mr. R. M. B. Parker, Mr. George Parrott, Mr. C. W. Prest, Mr. H. F. Preville, Mr. R. Rutherford, Mr. Arthur Scaife, J.P., Mr. Franklin Smith, Mr. A. H. Stockley, Mr. G. Moody Stuart, Mr. E. M. Walcott, Mr. F. H. Watson, Mr. R. A. Wiseman, Mr. Algernon Aspinall, C.M.G. (Hon. Treas.), and Capt. F. F. C. Messum (Hon. Sec.).

AUSTRALIAN SUGAR.

The following figures regarding the production, exports and imports of sugar in connection with Australia are from *The Australian Sugar Journal*.

Year.	Production. tons.	Imports. tons.	Exports. tons.
1901	...	98,519	4,738
1902	98,795	93,444	3,335
1903	111,659	91,615	2,363
1904	161,670	38,086	2,344
1905	172,242	24,965	11,158
1906	205,576	42,025	9,253
1907	214,244	6,201	18,260
1908	165,715	19,596	14,741
1909	148,470	99,774	8,091
1910	229,554	34,060	6,585
1911	190,595	33,273	6,552
1912	129,783	98,541	2,256
1913	266,267	74,901	3,419
1914	246,408	17,125	18,091
1915	159,681	22,510	7,181
1916	192,831	125,047	1,071
1917	324,260	63,936	1,347
1918	209,853	6,436	2,239
1919	162,298	103,337	2,314
1920	157,401	99,067	2,546
1921*	299,563	84,470	29,409

* An estimate only.

The figures regarding production for the years 1901 to 1909 inclusive are for the sugar season commencing April 1st each year, while trade figures refer to calendar years.

The production of beet sugar in 1921 was 883 tons, and for 1920, 1,551 tons.

The following figures, given by the *Australian Grocer*, are the latest available as to the *per capita* consumption of sugar for the Commonwealth, and include all sugar used, whether for domestic consumption or for purposes of manufacture, either for local use or export. It is not mentioned whether the sugar is expressed in terms of raw or refined.

Year.	Production. Tons.	Consumption in Australia. Tons.	Per Capita Consumption. Lbs.
1916	4,875,325	285,618	122
1917	4,935,311	271,361	125
1918	5,030,479	278,514	124
1919	5,247,019	288,445	127
1920	5,346,276	292,183	121

"FAIRRIE TALES."

"New Edition, Revised and Enlarged."

In a lecture delivered at the Victoria Hall, Halifax, on April 12th, on the subject of "The Production and Refining of Cane Sugar," Mr. Geoffrey Fairrie, of the refining firm of Fairrie & Co., Ltd., of Liverpool, renewed his slanders against "certain yellow or brown sugars made in the tropics and sold here under various names, but collectively known as direct consumption sugars," which he spoke of as being imported from the plantations without having been "cleansed" and "purified" in a refinery. He now stated, on the authority of "one of the most eminent authorities in the country," that a "muddy sediment" appeared when these sugars were dissolved in water, and that it contained sugar-cane fragments, amorphous matter, miscellaneous debris, bacteria, fragments of living mould, mould spores and dead yeast cells.

As regards plantation white sugars, Mr. Fairrie had no *vis a tergo* in the shape of an analytical report to help him, but attempted to discredit them by saying that these sugars, which contain over 99 per cent. of pure sugar, go off colour in keeping, owing to the oxidation of the "camouflaged" colouring matter. This is all he can say against them. Now it is, to say the least of it, a curious coincidence that in his earlier lecture Mr. Fairrie should have given almost word for word a statement made in an anonymous pamphlet entitled "Report on Direct Consumption Sugar," published in 1917, regarding raw sugars being made by "natives, whose habits are not altogether objectionable," and that in his latest utterance his list of horrors should be an almost exact paraphrase of one given by the anonymous author of that pamphlet.

In the circumstances it would not be unfair to assume that Mr. Fairrie's "eminent authority" was the anonymous compiler of the pamphlet. Granted that it would not, the whole basis of Mr. Fairrie's argument falls to the ground, for the sugar reported upon by the anonymous pamphleteer included sugar from Cuba, which does not produce either West India crystallised or genuine muscovado, or other direct-consumption sugar; and the pamphleteer added that samples were taken at a well-known refinery. So the cat is out of the bag, and it would appear that thus Mr. Fairrie is attributing to direct consumption sugars attributes of refining sugar analysed by an anonymous authority, who published an anonymous pamphlet in 1917! Mr. Fairrie would do better to attend to the business of developing the refining capacity of this country than to casting muddy sediments against imported sugars whose excellence is a household word.

SIR OWEN PHILLIPS, M.P., has been nominated as President of the London Chamber of Commerce, in succession to Mr. Stanley Machin, whose term of office has expired.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

In an article on the subject of rice cultivation, the *Indian Scientific Agriculturist* (Vol. 2 No. 8) states that the best yield is obtained by single planting, that is to say by putting down bunches of plants in spots nine inches apart instead of single plants at that interval. Another method is by seed selection in planting, a point on which the article lays great stress. Green manure crops are also strongly recommended.

Seeds cannot be preserved indefinitely by drying, and the old stories of grains of wheat discovered in tombs in Egypt of the date of some thousand years ago germinating when sown must be treated with many grains of salt. But of properly authenticated instances of the maintenance of vitality, there exists those of the germination of seeds of *Hevea bi-capsularis* 105 years old in Melbourne, and of *Cassia linaris* 87 years old.

Mr. E. N. Ward, in the *Agricultural Gazette* of New South Wales, gives the following recipe for the preparation of liquid manure. Soak a sugar bag of fresh cow, pig or poultry manure for a week in 50 gallons of water. The solution obtained may be diluted by the addition of three parts of water for use. The residue in the bag is then treated with another 50 gallons, and the solution diluted with an equal part of water. The product of a third extraction may be used without dilution.

The so-called wild sugar-cane of Egypt is a strong perennial plant growing to a height of between six and nine feet, and is commonly used for sea defences on sandy shores, or for arresting the shift of sands in the desert. It was introduced into, and cultivated in, Algeria about fifty years ago, and the cut stalks are now used for making fences, wind screens, roofs, etc., and the young shoots for fodder. It is not adapted and is not used, for the manufacture of sugar, although it is probably the "sugar-reed" of Herodotus.

Fourteen new-born calves were fed by Mr. R. C. Calloway for upwards of 24 weeks on skim milk, a grain mixture consisting of wheat bran, corn meal, velvet bean meal, and oats in the proportion of 2:1:1:1, hay and corn and soybean silage. To this elaborate menu he added, in the case of seven of the calves, blackstrap molasses, in small amounts at the beginning, and at the rate of 2 lbs. per day as age progressed. The molasses had no undue laxative effect when fed cautiously, acted as an appetiser, increased the gains somewhat, and caused a reduction in the cost of raising the calves.

Data from 220 sugar-beet farms in irrigated districts in Utah and Idaho show that the cost per ton of beets ranged from \$5, in two instances where yields averaging 24 tons per acre were obtained, to \$35 in the case of one grower who har-

vested but 3 tons per acre. The acre yields on the 220 farms averaged 13.7 tons. Although the average cost was \$9.40 per ton, this rate was exceeded on nearly half the farms. Seventy-two per cent. of the growers produced beets at a cost of \$11 per ton or less. Labour constituted from 69 to 75 per cent. of the costs exclusive of land rent; material, 7 to 10 per cent.; and insurance, taxes, overhead and miscellaneous expenses 17 to 25 per cent.

"There is," says Mr. J. J. Kettle, F.R.H.S., "obviously a close connection between beekeeping and fruit-growing; and, if intelligent educational propaganda in favour of bee-keeping be conducted among fruit growers, it is sure to be productive and to render a double service to the community. More fruit will set if cross-fertilised than when the flowers are pollinated with their own pollen; the fresh pollen brought by bees helping to produce the greatest possible amount of fruit. This fact has been proved over and over again by experiments. This is no fairy story, but a fact. There is little doubt that the time will soon arrive when the fruit growers will, as a body, appreciate the close connection between fruit-growing and bee-keeping, and do all they can to make of every fruit-grower a bee-keeper."

The Egyptian bee is scientifically known as *Apis mellifica-fasciata* Latr. The oldest record of Egyptian beekeeping, states the *Tropical Agriculturist*, is said to be about 4000 B.C., when the bee was used as a hieroglyphic for "King" on certain monuments. The native hive is a "mud-cylinder," of which Nile mud and cowdung are the chief ingredients. Swarming takes place between February and May. A colony may contain virgin queens while a fertile queen is in the hive. Moreover, there are "half queens" that lay drone eggs. When laying workers occur, a great number laying a few eggs each take part in this business. It is further recorded that these bees favour the rearing of drones. Newly built combs have a darkish appearance, and even during a honey-flow there is no great inclination to build.

One of the most interesting subjects in Nature is that of luminescence in connection with animal life, especially in the case of insects, whose power of producing light is enormous in comparison with their size. Everyone who sees, in the sugar crop season in Trinidad, when the cane debris lies in the fields, especially attractive to insect life, the lantern beetle fitting, conveying the impression of a lantern being carried about, is struck with this. Insect light is, in fact, particularly efficient, Mr. E. Newton Harvey giving the efficiency of the light of the firefly as being 0.06, as compared with the 0.013 of a tungsten incandescent lamp, and the most efficient light for human use, both from the point of view of colour and energy, would be a light similar to that of the glow-worm, but differing from it by being white.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 194.)

Whilst we were still enjoying Mr. Eyre Hutson's good cheer, the word went round that owing to the Norther not even a picket boat would put off for the *Calcutta* that evening. In this emergency, Mr. and Mrs. Grabham came to my rescue, and enabled me to spend a comfortable night in their house, which, according to the ethics of writers of travel books, is quite enough in itself to justify my having attempted to describe the colony and its prospects—an undertaking which otherwise would have been quite unpardonable!

By morning the Norther had blown itself out, leaving the mercury at the comparatively low level of 75 deg. Fahr., which was refreshing after the sweltering heat of the preceding day. Regaining the *Calcutta*, we found that a party of officers of the Sussex Regiment, who had been dining on board, had been similarly marooned owing to the vagaries of the weather, and had spent the night in our good ship. Shortly before noon we weighed and threaded our way again through the many attractive cays, both great and small, towards the open sea that separated us from Jamaica. These cays looked enchantingly beautiful in the morning light, with their fresh green coco-nut palms, and one could well understand how much they mean to the town-dwellers, who resort to them much as a Londoner does to the seaside. One of these islands is specially beloved by the people. That is St. George's Cay, which witnessed the decisive engagement between the British settlers and the jealous Spaniards on September 10th, 1708—an event which is still celebrated with patriotic enthusiasm every year. It was there that the stout-hearted woodcutters, or Bay-men, as they were called, made their headquarters, and it was there that, with the help of the crew of the British sloop *Merlin*, they inflicted defeat on a force of no fewer than 2,000 Spaniards under General O'Neil, the Governor of Yucatan, thus establishing upon a solid foundation "His Majesty's Settlement in the Bay of Honduras."

These early colonists had something worth fighting for, since by the end of the eighteenth century the value of mahogany had come to be fully appreciated. Their predecessors had devoted themselves to the cutting of logwood, which still forms an important industry, and it is said that it was quite by chance that the discovery of the advantages of mahogany for furniture-making, and the subsequent development of the demand for that wood, were due. A Dr. Gibbons—so the story goes—happened to have a brother who was captain of a vessel trading with the West Indies. This skipper brought home some planks or junks of the wood from British Honduras, but they were consigned to the Doctor's back-yard, since no carpenter could be found to work them up, as they were so hard. Some little time after this, Mrs. Gibbons needing a box in which to store her candles, the mahogany slabs were requisitioned for the purpose, a carpenter, after some demur, being

induced to make them up. The candle-box was finished, and, struck by the beauty of its grain, Dr. Gibbons caused a bureau to be made out of the mahogany, and the fine colour and exquisite polish of this piece of furniture excited general comment. Among others who admired the bureau was the Duchess of Buckingham, who was so greatly impressed by its charm that she at once gave an order to Woolaston, the carpenter who had made it. From that moment mahogany furniture became the rage, and Woolaston's fortune was made.

It was not until 1862 that the Settlement of British Honduras was declared to be a colony. In that year a Lieutenant-Governor was appointed, subordinate to the Governor of Jamaica, but since 1884 the colony has been quite independent of the neighbouring island, which until recently could only be reached from it by passengers proceeding *via* some American port or Colon. As the result, however, of the Canadian Trade Agreement of 1920, the Canadian Government Mercantile Marine have established a fortnightly service which gives Belize direct communication with Kingston, Jamaica, the Bahamas, and, best of all, with the Dominion of Canada itself, whose people now have a unique opportunity of showing what they can do in the direction of the development of a hitherto sadly neglected part of the British tropics.

It will be no injustice to this new service to say that the most agreeable way of making the passage is in one of His Majesty's cruisers, especially if time is an object, for within fifty-three hours of leaving the roadstead at Belize, we were lying snugly against Messrs. Luscelles de Mercado & Company's wharf at Kingston.

Our first glimpse of the island had been a low range of hills, purple and blue in the distance, which gradually rose higher and higher as we coasted along, till they blended in a glorious crescendo with the Healthshire Hills, on which Nelson had his lookout, the Long Mountain, and the famous Blue Mountain Peak. Let me here give Michael Scott's impression of the glorious view that unfolds itself as one approaches the capital, for his description is as fresh to-day as when he put it in the mouth of Tom Cringle over a century ago.

"I went on deck with a heavy heart, and, on looking in the direction indicated, I beheld the towering Blue Mountain Peak rising high above the horizon, even at the distance of fifty miles, with its outline clear and distinct against the splendid western sky, now gloriously illumined by the light of the set sun. We stood on under easy sail for the night, and next morning, when day broke, we were off the east end of the magnificent island of Jamaica. The stupendous peak now appeared to rise close aboard of us, with a large solitary star sparkling on his forehead, and reared his forest-crowned summit high into the cold blue sky, impending over us in frowning magnificence, while the long dark range of the Blue Mountains, with their outlines hard and clear in the grey light, sluped away on each side of him as if they had been the Giant's shoulders. Great masses of white mist hung on their sides about half-way down, but all the valleys and coast as yet slept in the darkness. We could see that the land-wind was blowing strong in-shore, from the darker colour of

the water, and the speed with which the coasters, only distinguishable by their white sails, slid along; while astern of us, out at sea, yet within a cable's length, for we had scarcely shot beyond its influence, the prevailing trade-wind blew a smart breeze, coming up strong to a defined line, beyond which and between it and the influence of the land-wind, there was a belt of dull lead-coloured sea, about half a mile broad, with a long heavy ground-swell rolling, but smooth as glass, and without even a ripple on the surface, in the midst of which we presently lay dead becalmed."

The little town of Port Royal, standing at the end of the long strip of sand called the Palisades—teeming with memories of the pirates and buccaners, whose stronghold it was before it was overwhelmed by earthquake in 1692—now formed a striking foreground to this wonderful scene. From the bridge we could see Nelson's wooden quarter-deck at Fort Charles, from which, while pacing up and down, the hero of Trafalgar was wont to scan the horizon. We could see, too, the trim white mess-rooms, barracks, store-houses, and workshops of the historic naval dockyard, now, alas, owing to the changed conditions of warfare, reduced to a cadre. Gliding up the spacious harbour, we passed in succession the Apostles' Battery, so called from its twelve embrasures, the grim Fort Augusta, and, strangest sight of all, a tramp steamer flying the German flag; but it is not until you are close to it that the capital comes in view.

Kingston is frankly a disappointment. One had hoped that there would have arisen from the ashes of the earthquake and fire which destroyed it in 1907, a city immeasurably finer in every respect than the old capital. No such opportunity had occurred since the town was first laid out by Colonel Christian Lilly (Her Majesty's Engineer-General) during the administration of Sir William Beeston, after Port Royal had been overwhelmed by the earthquake in 1693; but, unfortunately, the opportunity was lost. An admirable scheme was put forward for erecting a sea-wall along the water front, with modern wharves and an extension of the Government Railway running along it, but owing to the obstinate obstruction of certain firms or individuals, it was never built, and the several owners, tired of waiting, re-erected their wharves in the same haphazard way as that followed by their fore-runners, and only one or more short strips of sea-wall now exist to show what this would have meant to Kingston.

With the rebuilding of the city it was much the same story. There was a sad lack of co-ordination. During the régime of Sir Sydney Olivier, two noble blocks of Public Buildings, whose flat roofs and shady colonnades give them quite an Oriental appearance, were erected on King Street from the designs of Nicholson and Corlette, while private enterprise has been responsible for several handsome banks and stores in the same thoroughfare, and also a particularly charming Shipping Company's office tinted a delicate yellow, and with a red roof, and standing aback of a trim little lawn graced with a fountain; but otherwise, most of the new buildings are so paltry as to make one wonder what can have happened to the large sums of money which the

Insurance Companies disgorged when it was conclusively proved by Court of Law that a fire preceded the earthquake on 14th January, 1907, when the greater part of Kingston was devastated.

The events of that terrible day have often been described; how a large party of English visitors had been taken out by Sir Alfred Jones in his palatial steamer *Port Kingston* to attend the Agricultural Conference; how when some of them were shopping, some enjoying a siesta after luncheon, and others attending a meeting which was being addressed by Mr. A. J. Bovell, a loud rumbling noise was heard, which developed into a prolonged roar, and culminated in an appalling series of bangs, the whole room where the meeting was being held heaving up and down in sharp waves, windows falling out, pictures and clocks tumbling down, the ceiling, on the point of falling, gaping from the walls, which themselves bulged and bent. In a moment all was confusion; the room was full of dust and falling plaster, and men's faces blanched with terror. The earthquake was over, and the meeting was adjourned. Elsewhere people were less fortunate; the city was covered with a cloud of dust, and when this was cleared away, dead and dying were seen lying on all sides. Fully two-thirds of the houses and buildings were in ruins, telegraph and overhead tram wires were lying in a tangle across the roads, and to add to the terror, masses of smoke began to arise from the raging fire which had broken out. It was all very terrible, and the disaster resulted in the loss of no fewer than 800 lives in Kingston alone, and it was only through the devoted work and admirable example set by the late Archbishop of the West Indies, and Mr. Charles de Mercado, and others that panic was averted.

It was a remarkable coincidence that whilst Sir Alfred Jones and his party survived unscathed, Sir James Fergusson, the Deputy-Chairman of the Royal Mail Steam Packet Company, who had reached Jamaica by another route to show the house-flag of his Company, should have been numbered among the victims; but Sir Alfred was never the same man after the earthquake, which undoubtedly hastened his end and deprived the West Indies of a generous and public-spirited friend.

The earthquake is now long forgotten; but, incredible though it may seem, traces of its effects are still in evidence in the shape of unsightly gaps where houses have never been rebuilt, and even of ruins that have never been cleared away. Harbour Street, running parallel with the wharves, is especially noticeable in this respect. Once the principal business thoroughfare, several of the leading firms whose stores were in it, alarmed by stories of possible tidal waves, removed to the more congenial atmosphere of King Street. Other firms followed, and King Street soon became the principal shopping street, so that the glories of Harbour Street have now departed.

But this is not all. The city is abominably paved, badly lighted at night, and atrociously dusty. There are no name-plates affixed to its streets, and the state of some of the lanes with their wooden shacks would disgrace an East-end slum.

But perhaps the worst feature of Kingston is the

dust, which is intolerable when the wind sets in from the south. This otherwise health-giving breeze is called the "Doctor," but no doctor would be tolerated for a moment if he were to arrive at a patient's house with so unpleasant a concomitant. The reason why Kingston is so dusty is because the roads—which, by the way, are almost innocent of sidewalks—are repaired with soft limestone, which is disintegrated into fine sand-like powder by passing motor cars; while the reason for the shortcomings of Kingston generally, which are recognised by a majority of the inhabitants, is attributable to the evils of dual control—or what might, perhaps, better be described as lack of control, judging by results, the city having not only a Mayor and Council, but also General Commissioners, so that in such trifling matters as cleaning up the city, paving it, ridding it from dust, etc., the unfortunate citizens fall between two stools.

The result of this is that the visitor to Kingston, the gateway to our largest and not the least beautiful of our colonies in the West Indies, receives an entirely false impression of Jamaica—and first impressions are those which establish themselves most firmly in the memory.

(To be continued.)

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbados Young Crops Vigorous.

April opened dry, says the *Agricultural Reporter* of the 15th of that month. Certain of the black soil areas, particularly in St. George, have been having better rainfall than the red soil areas. Grinding operations are proceeding well, although the scarcity of water is proving an impediment. In St. Philip and Christ Church, reaping has been going on rapidly, and some estates will soon finish their crops, but the tonnage will not exceed 15 tons per acre. Reports from farther inland are more satisfactory, some fields yielding 36 to 42 tons per acre. The condition of the young crop is excellent throughout the island, and falling a drought, a heavy crop is predicted for next season. Ratoons are growing with vigour, very little supplying being needed. A warning comes from the Agricultural Society that mosaic disease is on the increase, and is now found throughout the island.—After twenty years' valued existence, the last number of the *Agricultural News* was published on March 18th.—Miss Jane Herbert, only daughter of Mr. and Mrs. Sydney Herbert, of Portabelle, was married on April 10th to Captain E. B. Williams at St. Michael's Cathedral.

British Guiana and East Indian Delegation.

The members of the Indian delegation attended a meeting of the British Guiana Sugar Planters' Association on the 31st March, Hon. R. E. Brassington presiding. Diwan Bahadur Piltai spoke frankly of various complaints made to them by East Indian immi-

grants, particularly in the matters of drinking-water, housing, and rates of wages for piece-work. The Chairman and Mr. G. E. Anderson were elected as representatives of the Association for the purpose of recording its views regarding the Colonisation Scheme and giving evidence at the public meetings held by the Indian delegates.—Ordinances Nos. 1 and 2 of 1922, which provide for the Government assistance to be allowed to sugar estates and rice-farmers respectively, have received the Governor's assent.

A Memorial to Mr. Hart-Bennett in Belize.

Mr. George Vipond has withdrawn his offer to purchase Riversdale Estate, and it now remains, as the *Clarion* points out, for the Government, (1) to find another purchaser; (2) to make further advances to develop the Estate; or (3) to get all that is possible out of it and then abandon the enterprise.—Including interest on the sum collected, the Hart-Bennett



The "Shorts and Overs."

A Pierrot Party has been recently in Bridgetown. Organized by Lady O'Brien, the troupe gave two very successful performances in aid of the Barbados Baby Welfare League. Top row: Lieut. C. S. B. Swinley, R.N., A.D.C. Third Row: (From left to right), Miss Patricia O'Brien, Miss Carew, Mr. Hyslop, Miss Hancock. Second row: Capt. Nurse, Miss Catford, Miss Boxill, Capt. Hancock. Seated: Mr. Prowse, Miss Rosamund O'Brien.

Memorial Fund now totals \$1,288, subscribed by over 2,600 people. Mr. C. R. Beattie states that it is suggested that the memorial shall take the form of a clock in connection with the erection of new public buildings.—At a meeting of the British Honduras Tax-payers' Association on March 28th, Hon. A. R. Usher presiding, resolutions were passed in favour of a reduction of the import duties on foodstuffs, and of the appointment of a retrenchment committee.

Grenada Government to Trade in Fertilisers P

The proposals for providing fertilisers by the Government as a means of assisting planters and benefiting the soil were explained by the Governor at a meeting of the Agricultural and Commercial Society, over which he presided, on March 16th. Planters would be given the opportunity of requisitioning for the quantity of manure required, and the order would be sent forward, a small charge of 7 per cent. being

made, 6 per cent. being for interest on the loan to be raised for the purpose, and 1 per cent. going towards expenses. The first payment on account would be required on or about September 30th, 1923. The cost of the scheme is estimated not to exceed £20,000 in any one year.

More Aid for Jamaica Sugar.

The Sugar Industry Aid Loans Law (1921) Supplementary Aid Bill (1922), which has been introduced into the Legislative Council, empowers the Government to raise a loan not exceeding £350,000 to be applied in making loans and supplementing those already made under the principal law. In a message to the Council in this connection, the Governor quotes the Sugar Board to the effect that "it is absolutely essential that the principles laid down by the Board be continued for another crop."—The charge against William Barrett, a private in the West India Regiment, of assaulting a police detective, the sequel of the alleged offence being serious friction between police and military, has been withdrawn, the defendant agreeing to pay costs.—A motion in the Legislative Council to increase the salary of the Chief Justice from £1,800 to £2,000 was lost, the officials not voting. The point was taken that no elected member could propose any increase in the figure on the Estimates either with or without the sanction of the President—a view with which the Attorney-General was inclined to agree.—A Commission consisting of Mr. J. V. Leach, Mr. W. Wilson, O.B.E., and Mr. W. Wrightson, C.M.G., has been appointed to investigate any grievances which may exist among the employees of the Government Railway, rates of wages being excluded from the terms of reference, as being already the subject of enquiry.—The sum of £291 having been subscribed to the Adeline Lopez Memorial Fund (including a donation of £200 from Chapelton) the fund has been closed and a scholarship is to be endowed at Wolmer's High School.—In his report on the health of Kingston, Dr. E. E. Murray, the Medical Officer of Health, points out that in spite of the persistent and vehement criticism of the city, its "vital statistics are not surpassed (during February) by any other city in the British West Indies."—At a public meeting under the auspices of the Jamaica Imperial Association on April 11th, vigorous protests were made against any increase in the Income Tax. Mr. P. C. Cork declared that from his experience an income tax was unsuitable to a tropical agricultural community owing to the necessarily violent fluctuations in the revenue derived.

Cotton Conditions in Montserrat.

Mr. K. P. Penchoc, writing on March 30th, reported exceptional rains during last month, particularly on the leeward side of the island. Downpours on the 26th and 28th caused some damage to the young cotton plants. The germination of the cotton seed has been good.—Mr. S. W. Holmes has been appointed an unofficial member of the local Executive Council, in the place of Hon. W. H. Wilkin, who has resigned.—The Canadian Manufacturers' Association delegates were expected in the island by R.M.S. *Chaleur* on March 31st.

New Edition of St. Kitts Laws.

A new and revised edition of the Ordinances of the Presidency has been authorised under the direction of His Honour W. P. Michelin, First Puisne Judge of the Leeward Islands.—Mr. E. J. Shelford, writing on April 6th, states that the Canadian Manufacturers' Associa-

tion members arrived here on April 2nd. They were met by an Entertainment Committee of the Agricultural and Commercial Society, and afterwards coming ashore and proceeding to Divine Service at St. George's Church, and from thence going on to Government House, Springfield, kindly lent by His Hon. The Administrator, where an excellent lunch was provided. Motor-car drives and an "At Home" by the Agricultural and Commercial Society at Government House closed the day's proceedings. On the next day most of the visitors availed themselves of an invitation from Mr. A. W. Gordon to inspect the St. Kitts (Basseterre) Sugar Factory, and a Public Business Meeting was held at the Court House, His Hon. Major I. A. Burdass, C.M.S., taking the Chair. Notwithstanding rather a poor attendance of the local business men, the meeting was a successful one, interesting speeches being made by Mr. W. S. Fisher, of St. John's, N.B., President of the Association, Mr. J. W. Johnson, Canada Cement Co., Montreal, Mr. Graham F. Towers, Superintendent, Foreign Trade Department, Royal Bank of Canada, the Honble. B. Marshall and others. Our visitors (says Mr. Shelford) appeared to be favourably impressed with our little island, and we parted with the hope that an impetus to trade with the Great Dominion of the North will be a result of their visit—one of the tangible reasons for this being the R.M.S. *Chaleur* in port going North pretty well loaded down with sugar and molasses.

St. Lucia Government takes over Wireless.

The British Treasury having agreed to transfer the wireless station at the Morne to the local Government free, a resolution was passed in the Legislative Council on March 17th, guaranteeing to provide sufficient funds for its maintenance, and sanctioning expenditure up to £600 in the current year for salaries and working expenses.

Mr. Archibald J. Brooks, writing under date 14th April, states that the coasting steamer *Hewanorra* has broken down again—this time seriously—and a new engine has to be obtained from England. The coastal service being the mainspring of local trade, this has greatly intensified existing depression. A very successful meeting of the Agricultural and Commercial Society was held on 29th March, to meet the delegates of the Canadian Manufacturers' Association, when views were freely exchanged. Mr. Brooks expects to leave St. Lucia to take up his new appointment in the Gambia on June 7th.

Tobago's Health Conditions.

Mr. Robert S. Reid, writing on April 11th, states that the weather has been favourable for growth, without interfering with the crop operations which are general all over the island. A brave attempt is being made to continue sugar cultivation, and it would be unfortunate if the collapse in prices wipes out the few remaining muscovado plantations.—Dr. Wise, the Surgeon-General, in company with Mr. Sorzano, the Warden, has been visiting the medical districts of the island. There is urgent need of a Receiving Hospital at Roxburgh, with a motor ambulance for service to and from Scarborough, as well as of district nurses in the villages where so many valuable lives are sacrificed by "rule of thumb" methods. The distances and difficulties also suggest the need of dispensaries. Mr. Ulrich and Mr. Schenll, of the Agricultural Department, have also been on a tour round the island, and were due to address the Planters' Association after a demonstration meeting on Captain Short's estate. Inspectors have also been visiting the Agricultural Credit

Societies.—Mrs. Buchanan Murray has left after visiting her son at Kendal Estate, and Lieut.-Colonel G. I. Hinds Howell, C.M.G., has gone on his annual trip to the Old Country. Col. Hinds Howell is making good progress with selected cacao plantation at Arden.—Enquiries for lands in Tobago have recently been received from Venezuela, Brazil and India.—Dr. Turpin, owner of Charlotteville Estate, who was recently appointed Resident Surgeon at the Colonial Hospital, Port of Spain, has been in the island on a much-needed holiday.

Mr. D. Macgillivray writes under date April 6th: We had another call this week from the Clyde steamer *Sariram* with the Line's superintendent, Mr. Collins. They seem determined to get a share of our exports. These for 1921 were: Cacao, 2,136,048 lbs. (over 12,000 bags). This exceeds the figures for 1920 by 508,239 lbs. Coconuts (including copra), 4,013,024. A large number of young trees are now coming into bearing annually.

The Trinidad Income Tax Bill.

Criticising the new Income Tax Bill in the Legislative Council on April 7th, Hon. A. Cipriani said that the net result of Section 22, in which it is proposed to hold liable the agent for taxation leviable upon his non-resident principal, would be a reduction in the number of agents employed, the smallest going out of business and the trade being diverted into the hands of monopolists.

The Income Tax Bill was passed in the Legislative Council on April 11th. An amendment to section 22, moved by the acting Attorney-General, and carried, provides that "a non-resident person shall be deemed to be trading within the Colony in every case where his recognised agent or other representative resident in the Colony sells in the Colony the goods of such non-resident person, whether the contract for the sale of the goods, the delivery thereof, or the payment therefore, is made within or out of the Colony."

Mr. J. H. Poole, under date April 15th, writes:—It would seem that the Board of Management of the Royal Victoria Institute has at last made up its mind to do something in the matter of the unsightly ruin that has disgraced the city for the past two years. The architect of the Public Works Department has been commissioned to prepare plans for the rebuilding of the Institute, and it is believed that a modified scheme will soon be under way. A well-equipped Y.M.C.A. centre is to be opened in Port of Spain on May 1st by His Excellency the Governor, Mr. R. D. Pringle, of the English National Council of Y.M.C.A.s, came to the Colony early last year to organise this branch. He has been splendidly backed up by a large committee of Government and business men, led by Mr. G. F. Huggins, Mr. S. D. Harding and Mr. J. B. Connell. Suitable premises in the centre of the city have been secured at a cost of \$15,000, and a further \$10,000 is being spent on alterations and equipment. The Government gave £1,000 towards the scheme. A fine hostel has been prepared which it is hoped will be especially useful to the men coming from overseas.—The Government Economy Campaign goes ahead. The axe is lopping vigorously, and cherished schemes are being postponed *shoe die*. This would appear to be the fate of the new scheme for the administration of Poor Relief in the Colony. A special commission recommended the appointment of a Board of Public Assistance, with a Chief Inspector to rank as a Principal Officer. In November last the Government invited applications for this post. It is now announced that the whole scheme is postponed owing to the state

of the finances of the Colony. It was a good scheme, and it is to be hoped that the Government will take it up again as soon as possible.

The Governor presided at a luncheon given on April 17th, in honour of the three East Indian delegates, who had come on to the Colony from British Guiana, and was duly "garlanded" in East Indian style by Parmanand Pundit. The health of Hon. Diwan Pillai, and Hon. V. N. Tivary, and Mr. C. E. Keatinge was proposed by Hon. Rev. C. D. Lalla.

Water Shortage in Turks and Caicos.

The latest message of the Direct West India Cable Co. complains of the great shortage of water. The inhabitants of Grand Turk were having to resort to well water for domestic purposes, and Bay Well water for drinking, the latter being far from satisfactory. To get one barrel full means practically a whole day for man and boy. If rain were not forthcoming within a short time, the Government contemplated sending sloops to Puerto Plata for a supply.—The Parrot Cay Company are having a large acreage of land leased from the Government on one of the islands close to Parrot Cay cleared, and intend putting it under cotton cultivation. Large quantities of cotton have arrived from the Caicos group to be ginned at the Government ginnyery, and reports from all the plantations are favourable.

OBITUARY.

SIR JAMES HAYES SADLER, K.C.M.G., C.B.

We regret to state that Colonel Sir James Hayes Sadler, K.C.M.G., C.B., died on April 21st, at St. Brins, Brittany, in his 71st year.

The eldest son of Colonel Sir James Hayes Sadler, K.C.M.G., the subject of this memoir joined the 61st Regiment in 1870. After various appointments under the Political Department in India, he was made Governor of the British East Africa Protectorate in 1905, succeeding Sir Ralph Williams as Governor of the Windward Islands four years later. This appointment he held until 1914, when he retired. He received the C.B. in 1902, and the K.C.M.G. in 1907. After his retirement, Sir James interested himself particularly in the welfare of students and others who came to this country from the various parts of the Empire in which he had served, and, as an active member of The West Indian Contingent Committee, his work for West Indian soldiers during the war will long be gratefully remembered.

WANTS.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

WANTED.—Position in Sugar Factory; 4½ years' war experience; holder of the (Royal Technical College, Glasgow) Diploma in Sugar Manufacture; also certificate from City and Guilds of London Institute. Have sound engineering experience.—Write R. O. W., care of THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, London, E.C.3.

Copies of CIRCULARS Nos. 590 of May 12th, 1921, and 612 of March 16th, 1922, are required. The Manager will be pleased to pay 6d. per copy for unsoiled copies returned to this office.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

WEST INDIES AT WESTMINSTER.

English Beet Sugar Corporation.

Mr. Hilton Young informed Captain W. Denn, on May 4th, that the Government had no interest in the English Beet Sugar Corporation. He had no information as to the nationality of the present holders in this corporation.

The West Indian Council.

Replying to Mr. Percy Hurd on May 3rd, Mr. Wood stated that the proposal for the formation of a standing conference of legislative representatives of each of the West Indian Colonies, British Guiana and British Honduras, had been handed to him in Trinidad. The question was discussed in his report.

St. Lucia's Constitution.

Mr. Churchill informed Sir J. Hood, on the 28th April, that he had referred the petition from St. Lucia for more representative government to the Parliamentary Under-Secretary of State (Mr. Wood) for investigation during his recent visit to the Colony. His views would be stated in his report, which was now in the press.

Indians in Kenya and Fiji.

Sir John Rees was informed by Mr. Edward Wood, on May 2nd, that the position of Indians in Kenya was under active consideration between the India Office and the Colonial Office. As regards Fiji, he did not anticipate that any further action would be taken until a report by the deputation from India to Fiji had been received and considered.

Telegraphic Communications.

Mr. Wood informed Mr. Gilson Murray on May 4th that negotiations were still in progress for the construction of a new cable from Bermuda to Barbados and beyond, but he was not in a position to make any statement at present. The question of wireless telegraphy and telephony had been taken into consideration. During his visit to the West Indies his attention had been called constantly to these matters, and he had expressed an opinion on them in his report.

The West Indian Naval Station.

Mr. Amery informed Lieut.-Commander Kenworthy, on 3rd May, that the present staff employed at Bermuda was the minimum necessary to carry out the work there, which was considerably greater and more complicated than before the war. The disposition of the Navy had been considerably changed since the war, and at this moment there were on the West Indian station—which embraced the whole of North American waters in both oceans, and, in the absence of a South American squadron, South American waters as well—four light cruisers.

German Trade in the Colonies.

Replying to Sir John Rees, on May 2nd, Mr. Churchill stated that, generally speaking, German firms or firms of which German subjects were partners or directors were now allowed to trade under the same conditions as were applicable to British subjects in British possessions overseas. There were certain restrictions as to the payment of pre-war debts and similar matters imposed in virtue of the Peace Treaty. For the present, German individuals were not allowed to enter Colonies and Protectorates except under special permit from the Colonial Government, but any Germans to whom such a special permit was granted were permitted to trade in the same way as other residents in the Colony.

Preference on Sugar and the Budget.

Speaking on the Budget proposals, on May 2nd, Mr. Macquisten presented the case for the reconsideration of the sugar duties. He said that before 1903 our great sugar industry had been almost completely destroyed, and all the vast colonial estates had gone out of cultivation through the pernicious system of sugar bounties instituted by Napoleon for the purpose of building up the industries of France and of injuring the industries of Britain. That policy had been seized on by Germany, and between her and Austria there was produced almost three-quarters of the sugar consumed here. So desperate was the situation of our dependencies that Mr. Joseph Chamberlain had secured the abolition of the bounties. He had actually had to give a dole to some of our West Indian Colonies of a large sum of money. One of the results of the late war was that these Colonies had been very largely cut off from us. We could not get to them owing to the submarine campaign and the shortage of shipping. America had proceeded to develop the sugar industry of Cuba, the products of which had risen from a few hundred thousand tons at the beginning of this century to many millions of tons throughout the war. American capitalistic combines also put enormous quantities of sugar machinery, made in America, into Cuba and the Philippines. These places and our West Indian Colonies had been accustomed to buy almost all their sugar machinery from Glasgow. Glasgow had made sugar machinery for the rest of the world long before France or any other country. The industry had employed thousands of men. These avenues of employment had now been closed, and Americans had stated their intention of getting complete possession of the sugar markets not only of their own country, which was legitimate, but of countries elsewhere. Now that prohibition was introduced, the United States used enormous quantities of sugar, which was one of the raw materials for home distillation. America had a surplus of sugar, and it was being sold in all our markets and in the British market at very much below cost. The result was that our sugar-producing colonies and dependencies, the natural suppliers to us of the major portion of our sugar, were being reduced practically to the same position as that to which they had been reduced by the sugar bounties. They had been granted a small preference of about £3 15s. per ton, but that had been met by the American producers. He therefore appealed to the Chancellor of the Exchequer, who had made a large concession to home-grown sugar. It was a very proper concession, for if we could establish a new agricultural and manufacturing industry in this country, and help it over the early years of struggle, it might be a perfectly sound thing to do. The Chancellor of the Exchequer, however, had not given anything like the same concession to the sugar producers of our Colonies. They should get a stabilised figure of one-third instead of one-sixth abatement on the Sugar Duty. That was necessary to secure that they would not be extinguished by American competition. Once they were extinguished by America or Germany, we might expect very dear sugar. Such an abatement would have been a more popular abatement than the abatement on tea.

Speaking in the debate on the same day, Mr. Bonar Law said that he admitted that it would be a great thing to reduce the sugar duty, but, in addition to the fact that the amount involved was so large, he thought there was this further consideration. The price was fluctuating so much, that if you were to take a penny off it, it was very doubtful if the consumer would get the benefit.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

The Kingston Harbour Tragedy.

Dear Sir,—I read the article in the CIRCULAR referring to the shark caught in Kingston Harbour. I happened to be on the spot when it was landed, and I took a snapshot of it.

I enclose a couple of prints, which may be of interest. One shows the boy (sitting on the fish) who was bathing with the girl at the time.

With best regards,

Yours sincerely,

Masson Works, Derby. J. PRET.

April 28th, 1922.

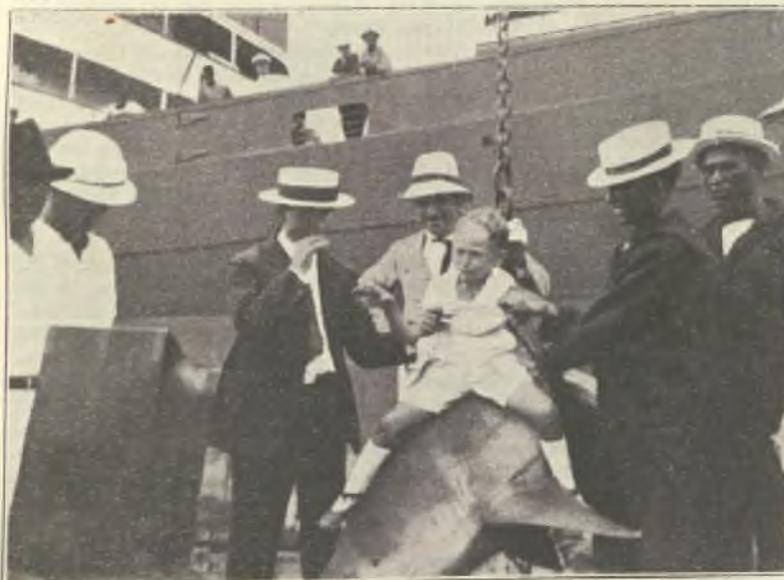
Dear Sir,—Referring to the account of the shark tragedy given in your CIRCULAR of the 27th, where it is stated that "the appearance of a 'tiger' shark in Kingston Harbour is believed to be almost without precedent," may I call attention to a graphic and interesting account of a similar tragedy and heroic rescue some years ago, as given by Lord Frederick Hamilton on pages 137-8 in his book "Here, There, and Everywhere"?

Yours truly,

D. GIBSON.

The Maples, Claremont Road, Redhill.

[Lord Frederick Hamilton, in his delightful travel book gives an account of how Robert Clinch, an apprentice on board the *Port Kingston*, dived under a shark in Kingston Harbour and attacked it with his fists in a gallant endeavour to save the life of one of his shipmates whom it was attacking. For this he received the Royal Albert and the Royal Humane Society's Medals.—Ednote.]



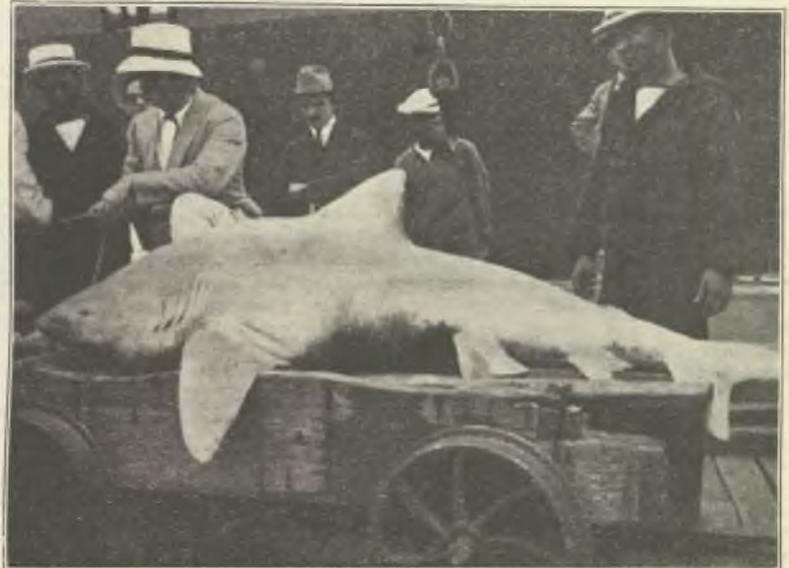
Master Bray Astride the Shark.

Son of Mr. Bray of the Texas Oil Company, this boy was bathing with Miss Lopez when she was attacked by the shark on which he is shown astride. An account of the tragedy was given in last *Circular*.

OUR WEST INDIAN LIBRARY.

FOUR STORIES AND A DRAMA OF OLD JAMAICA. By ALEXANDER MACGREGOR JAMES. Jamaica. The Gleaner Co. Price 2s.

Mr. A. M. James has followed up his *Cacique's Treasure*, which met with a very favourable reception last year, with a volume of short stories and a play.



The Man-Eating Shark, after Capture.

This shark, which was captured by Mr. Mitchell-Hedges as described in last issue, fatally injured Miss Adeline Lopez on March 13th.

The last, which is entitled "A Soul's Sacrifice" and labelled "A Dramatic Drama in One Act of Six Scenes," was awarded a prize in the Literary Competition held under the auspices of the Institute of Jamaica some years ago. It contains all the thrills which help to popularise a *Grand Guignol* production.

The stories are slight, but vividly presented and instinct with local colour. We commend this little volume to lovers of Jamaica as a worthy sample of local craftsmanship.

It is to be regretted that in the review of "The Life of Eros Nuttall, Archbishop of the West Indies," which was published in last issue, it should have been stated that the Imperial Government had definitely decided to make a free grant of £150,000 and a loan of £800,000 for relief purposes after the earthquake of 1907, but had deferred making the announcement until the arrival of the Archbishop and his colleague.

This conveyed an erroneous impression. The West Indian Committee, at the instance of the Earthquake Committee of Jamaica, had laid such data as were available to them before the Government, but it was considered desirable, before arriving at any definite conclusion, that full particulars should be furnished from Jamaica. This resulted in the visit of the deputation headed by Archbishop Nuttall, that supplied the fullest details as to the effect of the disaster and the necessity for Imperial aid, in reference to which a decision was arrived at after a full consideration of all the facts.

SOME COMPANY NOTES.

The Trinidad Central Oilfields, Ltd.

The directors of the Trinidad Central Oilfields announce that owing to delay in the production programme and production not having been commensurate with the drilling effort, they do not anticipate being in a position to recommend a dividend for 1921. In respect of 1919 and 1920, 10 per cent. was paid.

Apex (Trinidad) Oilfields, Ltd.

The report and accounts for the year ended September 30th, 1921, show that the share capital is unchanged at £100,000 in £1 shares issued and fully paid. The oil profits for the year amounted to £72,950, and after deducting £18,859 for cost of damage by fire at No. 3 well; £15,984 for depreciation written off wells; and £2,174 head office net expenditure, there remains a profit of £35,951 (subject to Income Tax and Corporation Profits Tax not yet ascertained) to be carried to the balance sheet. After deducting £1,929—the debit balance for the previous year—there remains £34,022 which the directors recommend should be carried forward, as they consider it prudent to maintain the present sound financial position of the company.

Capital expenditure of £110,652 was incurred during the year, in the further equipment and development of the property and the purchase of additional oil rights and surface rights.

Operations on the company's property were retarded during the earlier part of the year under review owing to the reorganisation of work and restoration of plant and material consequent upon the fire at No. 3 well in November, 1920. The production of crude oil during the year was 44,491 tons, of which 43,453 tons were produced during the last seven months, i.e. from March to September, 1921. This production does not include about 15,000 tons of oil estimated to have been lost by the fire at No. 3 well. Deliveries of oil to Trinidad Leaseholds, Ltd., amounted to 37,402 tons for the year, while 6,639 tons remained in storage awaiting delivery to that company's refinery. The arrangement for the sale of the oil production to Trinidad Leaseholds, Ltd., provided for deliveries to be taken up to 2,000 tons per month to July 31st, 1921, and thereafter up to 3,000 tons per month. Subsequent arrangements have been made, subject to the adjustment of details, for increasing the deliveries to be taken up to 10,000 tons per month, as soon as the purchasers are in a position to deal with this increased tonnage. In the meantime, production is being restricted to meet the present limited delivery requirements and the subject of the disposal of any surplus production which may not be taken by Trinidad Leaseholds, Ltd., is under investigation.

Drilling operations have been directed towards both production and test purposes, and have been attended with most successful results, both in the way of obtaining production and in demonstrating the value of the property, and although the bringing in and operation of the wells has been hampered by the restriction of deliveries, 19 wells have been sunk to date, of which 10 have been brought in or are ready to be brought into production as soon as increased deliveries can be taken. The bringing in of No. 7 well with a heavy flow in August last necessitated closing down the other wells, and since then the greater part of the deliveries have been met by a regulated flow from that well, the balance having been provided from limited test operations and from a new flowing well, No. 8, recently brought in. Development work has mainly been on sands located at about 1,050 ft. to 1,400 ft. in depth, varying with the position of the well sites. Good results have also been obtained from shallow sands much nearer the surface. Tests will be made of the deeper oil-bearing zones at a later stage.

The Colonial Bank.

Presiding at the 168th half-yearly general meeting on April 27th, Mr. C. F. Wood, the chairman, said they were dealing with the half-year ended December 31st last, a period in which they suffered from the effects of the great fall in prices of produce and severe depression in trade generally; and under these trying conditions it was not unnatural that their figures showed an all-round shrinkage. In commenting on the principal items, he said that capital and reserves at £900,000 and £400,000 respectively remain unchanged. Their West Indian note issue at £648,928 compared with £622,712 for the corresponding period. Their note issue was thus steadily reaching more normal figures.

Deposits at interest and current accounts at £6,646,767 compared with £10,206,697 for the December half-year 1920, and with £8,710,604 for the June half-year 1921. This large decrease was accounted for, as he had already hinted, by the bad trade conditions experienced at the overseas branches, where the bulk of their deposits were raised, and where large sums had had to be withdrawn for the upkeep of estates and also for investment. It was, perhaps, worthy of note that in December, 1913, their deposits were only £2,051,000. Acceptances on account of customers at £1,308,602 compared with £2,218,876, the decrease being partly due to the general falling-off in business and partly to the great decrease in commodity values.

On the asset side of the balance-sheet, cash in hand and in transit at £520,157 compared with £919,637. As this item consisted of silver, copper and notes issued by the local Governments and the West African Currency Board, the decrease was indicative of the state of trade and the small demand for currency. Cash at bankers and at call and short notice stood at £1,027,419, while the figures for the corresponding half-year were £753,331. British Government Treasury bills and investments stood at £698,059, as compared with £990,559, while bills receivable were £2,037,207, as compared with £1,664,130.

They were asking the shareholders to confirm the appointment of the Right Hon. Sir Frederick J. D. Lugard, G.C.M.G., C.B., D.S.O., as a director. The name of Sir Frederick Lugard was a household word wherever the British flag flew, and the court were convinced that his unique knowledge of affairs in the British Empire overseas, and especially in West Africa, would be of incalculable service to the Colonial Bank.

After commenting on the present position of the principal Colonies in the West Indies, he said, dealing with the general trade position, that signs were not wanting that the tide had turned. So far this year their trade balance, after allowing for the invisible exports, had been on the right side. Index figures of wholesale prices were satisfactory, and, given some assurance of peace in the labour market, he should say that there was a better undertone all round.

Dealing with the visit of the Hon. Edward Wood, M.P., to the West Indies and British Guiana, he said that it was confidently anticipated that much good would result from his mission, and that if his recommendations were adopted a greater degree of confidence in our oldest group of Colonies would be established. That Mr. Wood's visit was greatly appreciated through the British West Indies and in British Guiana went without saying, and he trusted that it would be regarded as a precedent for further expeditions of a similar nature; for it was, to his mind, of paramount importance that Colonial Office officials should possess first-hand knowledge of the countries whose destinies they, in a measure, controlled.

The report and accounts were unanimously adopted.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica & Bermuda, from Avonmouth in s.s. *Changrinata*, May 1st:—

Li. Col. G. E. Badcock C.B.E., D.S.O.	Squad. Comdr. & Mrs. J. MacDonald	Lieut. G. T. Phillips, R.N.
Mrs. G. E. Badcock, children	Miss MacDonald	Lieut. R. E. Shaw, R.N.
Mrs. Chandler	Capt. & Mrs. G. L. T. Matheson	Lieut. I. E. Smith, R.N.
Major G. S. C. Cooke	Ja. Comdr. S. E. Nicolle	Mr. F. P. Speer
Captain K. G. B. Dewar C.B.E., R.N.		Mr. G. L. Smith
		Mr. J. K. V. Wright

Home arrivals from Jamaica, in Avonmouth, April 30th:—

Mr. & Mrs. Atschul	Mr. I. M. Hall	Mr. S. F. May
Miss E. Asher	Mr. & Mrs. A. H. Hooper	Capt. R. F. Mitchell
Sir Percy Bennett	Mr. W. J. Hooper	Mr. & Mrs. Orlich & lam.
Rev. Bryan	Mr. R. A. Hooper	Mr. & Mrs. & Miss Prover
Mrs. K. L. Durridge	Mr. J. Hinson	Mr. E. Pirie
Mrs. S. Brainbowdie	Mr. S. R. Hudson	Mr. C. Robinson
Mr. & Mrs. J. J. Calderwood	Mr. & Mrs. Lionel Jones	Miss E. Richards
Mr. & Mrs. A. Castro	Mr. & Mrs. R. Lawrence	Mr. Don. Sainsack
Mrs. R. L. Chalk	Dr. G. A. Leon	Mr. L. Schuster
Mrs. E. C. Collins	Mr. J. Leiper	Capt. A. M. Sherlock
Mr. & Mrs. Gamm	Mrs. & Miss La Forest	Mrs. Stillwell
Evelyn	Mr. & Mrs. Lohmann & lam.	Mr. E. D. Wagner
Mr. & Mrs. A. Darney	Mr. & Mrs. & Miss Manners	Mrs. M. A. Way
Mr. & Mrs. T. P. Evelyn	Mr. D. Marks	Miss E. J. Williams
The Misses Evelyn (2)	Mr. & Mrs. Matthews	Miss M. L. Wright
Mrs. C. L. Farewell	Miss Matthews	Mr. Herbert
Mrs. E. Forde & Infant	Mr. & Mrs. J. McArthur	Mr. Harold Williamson
Mrs. Elsie Griffiths & Sons		Mr. Harold Williamson
Sir George Hayson		

Home arrivals from Jamaica, in Avonmouth, May 7th:—

Mr. Harvey Adams	Mrs. W. Gamble	Mr. T. Monkman
Miss Phyllis Atwell	Miss C. K. Harvey	Miss & Mrs. G. E. Newcomen
Mr. & Mrs. Frank Cotler	Miss M. H. Hope	Mr. T. Newton
Miss Mary Condon	Miss R. Hunsphreys	Miss Marjorie Owen
Mrs. E. Cobb	Miss G. Jones	Mr. Edmund Phelps
Miss H. O. Dunn	Mr. & Mrs. James Laughland	Miss Gwen Richardson
Mr. Gordon Fleming	Mr. James Mason	Mr. & Mrs. J. Smith
Mr. Doane Gardiner	Mrs. S. B. Monkman	

Thos. & Jas. Harrison.

Sailings to West Indies, from Glasgow, in s.s. *Counsellor*, April 28th:—

Mr. & Mrs. de Wiskart	Mr. & Mrs. J. P. Kirkness	Miss McEneaney
Mr. H. S. Hutson		Mrs. Pareira

Sailings to West Indies, from London, in s.s. *Specialist*, April 28th:—

Mr. Rollers	Mr. T. Garraway	Miss Sturges
Mrs. M. M. Carter	Master Gordon	Mr. Wigh
Mrs. & Miss Doggett	Mr. & Mrs. McIntroy	

Home arrivals from West Indies, in s.s. *Commodore*, London, May 5th:—

Major J. A. Burdon	Miss Maude Huggins	Miss Lillian Vermeer
Mr. J. B. E. Davies	Mr. & Mrs. T. R. Johnston	Mr. & Mrs. H. F. Wildy
Mrs. Bella Grey	Miss Doris Pitt	

Advanced bookings to West Indies, per s.s. *Tutaha*, from London, May 13th:—

Mr. Dixon	Mrs. & Miss Grannum	Rev. & Mrs. J. D. Rainforth
Mr. & Mrs. Brasher	Mrs. Huggins & child	Mr. Sayles
Miss Howell	Miss Hayland	Miss Scott
Mr. Cavenagh	Mrs. Hainston	Mrs. Forbes Todd
Mr. A. G. L. Douglas	Ms. Miller	Mr. Vine
Mrs. Foley	Mr. Justice Michelin	Mrs. Veats

Royal Netherlands West Indian Mail.

Home Arrivals from West Indies, in s.s. *Cryssen*, Plymouth, May 2nd:—

Mrs. A. Alston & Son	Mr. & Mrs. F. W. Jackson	Mr. & Mrs. A. Rodriguez & lam.
Mr. & Mrs. R. H. Andrews & family	Mr. G. Keatinge	Mr. & Mrs. C. Saddle
Mr. J. O. Corsia	Mrs. E. Leacock & Son	Mr. & Mrs. C. E. Shepherd
Mr. & Mrs. L. R. Egerton	Mr. & Mrs. H. J. Little	Miss Betty Shepherd
Mr. V. R. Escobar	Mr. T. H. Marshall	Mrs. E. G. Curion
Miss K. Hall	Mr. A. Moll	Villa & family
Mr. H. Hickling	Miss J. Murray	Mr. N. G. Worrall
Mr. G. H. H. Howell	Mr. & Mrs. D. S. Pollard	
	Mr. M. Robertson	

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates have been kindly supplied to The West India Committee by the respective Governments.

	Anti-gu. To Feb. 28	Barbados. To Mar. 31	British Guiana To Feb. 28	Jamaica To Mar. 31	Dominica To Dec. 31	Grenada To Feb. 28	Jamaica To April 1	Montserrat To Mar. 31	St. Lucia To Mar. 31	St. Kitts Nevis To Mar. 31	St. Vincent To Dec. 31	Trinidad To Feb. 28
Alumwood	2,204,833	12,172
Asphalt
Balata	138,560	85,080	2,944	2,065,656	1,031	...	...	...	...	...
Bananas	8,711
Bauxite	12,193,969
Bitlers
Cacao	257,568	2,122,512	2,004,411	432	946,407	130,544	12,193,969
Cassava Starch
Cocoa-nuts	185,847	1,425,955	299,797	4,908,250	6,005,312	...	23,680	50,800	...	3,150,309
Coffee	217,330	...	626	2,700	48,797	...	27,658	...	83,895	50
Coira	90,316	...	...	...	...	...	...	157,181	291,490
Bottom, M. Galeite
Bottom, Sea Island	11,846	34,150	...	...	...	...	...	298,139	...	50,120	493,926	...
Bottom Seed	2,500	...	288,990	...	...	11,634	...
Diamonbts	14,644	...	...	...	...	...	...	...	...	...
Dyewoods	3,000	22	551,050	...	...	...	1,324	...
Ginger	2,700	...	...	...	...	...	...	...	313,043	2,750
Gold	540	...
Ground Nuts	3,412	191,682	...	12,912	...	...	...
Honey	141,412	221,634	16,610	11,294	...	...	...
Lime Juice (raw)	70,025	...	660	240	...	...	...
" (concd.)	1156,736	...	...	...	...	...	...
Lime (citrate of)	2,930	...	...	...	...	...	...	...	...	...
Logwood	525	...	5,040	74	...	...	...
Lumber	9,629	1,359	164,867	...	242	...	9	...	...	...
Mahogany	2,048,007	...	...	...	...	...	...	...	...
Mangak	...	40	...	...	...	...	...	...	...	...	...	19,500
Molasses	52,900	1,137,833	1,178	...	...	...	117,302	...	169,096	48,246	307,483	79,438
Oranges	1,297	...	...	...
Essential Oil	3,844	...	...	...	...	...	2,401,809
Petroleum	3,428,280	...	...	...	...	...
Pimento	4,101,504	...	...	...	...	...	...	...	...	442
Rice	48
Rubber	160,223	...	...	...	...	...
Rum	...	115,000	129,294	...	...	...	...	...	...	...	...	...
Shingles	248,000	...	...	...	...	...	...	...	...	...
Sugar	...	2,500	10,431	...	...	81,230	...	...	...	...	168	1,358
Timber	15,413	...	...	224,245	...	...	...	...	...	...

PRODUCE MARKETS SUMMARY.

Telephone—
Central 5642.
Telegrams—
"Carib. London."



15, SHERBORN LANE,
LONDON, E.C. 3.
May 9th, 1922.

BANK RATE. 4 per cent. as from April 13th.

EXCHANGE. Value of the £ Sterling.

	April 25th		May 9th			April 25th		May 9th					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.				
In U.S.A. ...	18	2	18	3	To Spain ...	1	2	6	1	2	6		
.. France	1	17	7	1	18	8	.. Germany	50	12	0	65	6	0
.. Belgium	2	0	10	2	2	6	.. Austria	1384	6	0	1530	0	0
.. Italy	3	4	8	3	6	2	.. Holland	19	2	19	1		

The intrinsic value of the gold sovereign is £1 2s.

SUGAR. In the New York market the quotations for duty-paid Cubans have fluctuated between 2.90c. and 4.11c., yesterday's value being 4.11c., equivalent to 2.50c. c.i.f., or about 2.33c. f.o.b.

The future market quotations were:—July 2.64c.; Sept. 2.64c. and Dec. 2.88c.

In the home market the attention of retailers has been directed to replenishing stocks which had been allowed to run down pending the Budget announcement as regards duty. There has been practically no change in prices, which stand yesterday at: West Indian Crystallised, 41/- to 45/6; Refiners' Yellow Crystals, 42/9; London Granulated, 48/3; American Granulated, spot 47/6; Mauritius White Plantation, spot 44/- to 45/6; White Brazil, 18/- c.i.f.; Cuban 96 deg., 13/1½ c.i.f.; Preferential 96 deg. (buyers), 16/6 c.i.f.

Terminal market values were: 96 deg., June, 14/8; August, 14/6; September, 14/-. White, 19/11½, 20/2½ and 20/0½, same months.

No information is yet to hand as to whether the last attempt to get the United States sugar duties raised during the passage of the Permanent Tariff Bill through the Senate has been successful or not, or what fate has overtaken the counter-efforts to obtain a reduction of the duty on Cuban sugars.

The Cuban crop will close early, only 160 factories working on the 8th, as against 195 at the corresponding date last year. It is extremely probable, judging from the working results of the factories that have closed down, that the 3,500,000 tons estimated by Messrs. Willett & Gray will not be realised.

Shipments of Cuban sugar for the first three months of 1918, 1919, 1920, 1921 and 1922 respectively, in tons:—

	To U.S.A.	To other countries	Total
1918 ...	612,103	204,871	816,974
1919 ...	771,004	163,414	934,418
1920* ...	1,035,107	395,487	1,430,594
1921 ...	674,819	125,952	799,771
1922 ...	1,403,933	498,049	1,901,984

*Year of maximum prices.

Facts about Sugar, to whom we are indebted for the above statistics, states that the enormous absorption of sugar in the United States this year has been due to the reduction of the invisible stocks at the end of 1921.

The April official valuation of sugar by the Indian Government for Customs purposes gives protection for Indian sugar of 6½ rupees against Java sugar over 23 D.S., 7 rupees against China and Japan refined sugar, and 6 rupees against Mauritius, per cwt.

The Indian imports of sugar for the ten months ending January 31st last were 638,516 tons, as against 203,713 tons for the ten months ending January, 1921; 585,511 tons came from Java and 20,308 tons from Mauritius.

The West Indian sugar statistics in London on April 29th were:—

	1922.	1921.	1920.
Imports ...	10,598	9,583	19,147 Tons
Deliveries ...	10,491	11,103	10,710 "
Stock ...	4,082	3,581	16,813 "

RUM. There is absolutely no demand either for the home-made or export.

The stocks in London on April 29th were:—

	1922	1921	1920
Jamaica ...	11,130	10,661	7,779 Pans.
Demerara ...	19,503	16,409	12,768 "
Total of all kinds	39,849	36,963	29,018 "

CACAO. During the fortnight a quiet business has been done in the home trade, but export is slow. West Indian sorts are steady. Fine Trinidad has sold at 74/- to 75/-, and fine Grenada is firm, with sales at 62/- to 61/- spot. Fine Jamaica is quoted at 58/- to 59/-, but no sales have been reported.

The stocks in London on April 29th were:—

	1922.	1921.	1920
Trinidad ...	5,756	21,080	21,058 Bags.
Grenada ...	12,023	28,605	26,021 "
Total of all kinds	99,731	191,978	175,841 "

ARROWROOT. Only a retail business is passing, with prices unchanged at: fair to good manufacturing 3½d. to 4d., and good to fine grocery 4½d. to 6½d.

BALATA. West Indian sheet remains slow of sale, and is valued nominally at 2/11½ per lb. spot.

BAY OIL. The plentiful supplies of bay oil remain neglected.

COFFEE. Fair home trade qualities continue to meet with a good demand, but low kinds are slow. There is no quotable change in values on the fortnight. At auction on Friday last, 40 bags of Jamaica common bold mixed sold at 49/-.

COPRA is quietly steady with West Indian f.m.s. valued at 22s c.i.f. London, or 22s 15s. c.i.f. Rotterdam.

COTTON generally has been in slightly improved request at hardening rates. No business is reported in West Indian Sea Island, the quotations of which are unchanged at: medium 28d., fine 30d., and extra fine 38d.

HONEY. With the exception of finest pale set Jamaica, there was little demand at last week's auction. About 120 casks of Jamaica sold at 92/6 to 40/- for dark to polish set, and 51/- to 66/- for fair to fine white. Cuban sorts were quite neglected.

LIME PRODUCTS. Lime Oil. Small sales of Hand-pressed have been made at 12/6 per lb., but Distilled is neglected. **Lime Juice.** Good new Jamaican Raw has sold at 3/- per gallon, and Concentrated is firm with further sales at £18.

LOGWOOD. The market continues quiet and unchanged. Last quotation, £9 spot.

ORANGE OIL. Sweet continues quiet, with sellers asking 10/6 per lb. Bitter is unchanged.

RUBBER. The market is dull and depressed, and very little business is passing. America is taking little interest in either the London or Eastern markets. Crepe and sheet 8½d. spot.

SPICES. Scarcely any business in **Pimento** has been done during the fortnight. There are sellers on the spot at 2½d., and on c.i.f. terms at about 19/3 Hamburg. The **Ginger** market is very firm with only a small quantity of Jamaica on the spot unsold. Some business on c.i.f. terms recently done marks an advancing tendency in prices. Spot values are nominal at 150/- to 220/-, according to quality.

TRINIDAD OIL. Production for April: Trinidad Leaseholds, Ltd., 8,500* tons; Apex (Trinidad) Oilfields, Ltd., 4,450* tons; United British Oilfields of Trinidad, 1,170 tons.

(*Output restricted.)

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—**British Guiana.** DEMERARA (Messrs. Barker Bros., McConnell & Co., Ltd.), May 8th: "Indications of rains commencing, light showers falling generally." BRAXAT (Messrs. Henry K. Dawson & Co.), May 9th: "Weather favourable."

The West India Committee Circular

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of The West India Committee Circular to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
CENTRAL 6842.

Telegrams:
CARRIB, LONDON.



15, SREYBING LANE,
LONDON, E.C. 3.
May 23rd, 1922.

"THE AGRICULTURAL NEWS."

AGRICULTURAL literature will be the poorer by the disappearance from its ranks of *The Agricultural News*, the last number of which was published on March 18th. The official organ of the Imperial Department of Agriculture, that journal made its first appearance on April 25th, 1902, since which date it has faithfully carried out its original object of supplying, in a popular form, information of an agricultural character suited to the requirements of the West Indies. But it has done more; it has appealed to a wider public throughout the world of tropical agriculture, as frequent extracts from its pages that have appeared

in its contemporaries demonstrate. On April 1st last the Imperial Department of Agriculture was merged into the West Indian Agricultural College, and to this circumstance, involving as it has done much extra departmental work of an extremely complex and difficult character, the decision to suspend *The Agricultural News* is due. It is, however, certain that that valuable journal will be succeeded by a publication of which the scope will be possibly even wider, since it is intended that the West Indian Agricultural College shall have an official organ that will embody not only College news, but also the results of original research by Mr. H. A. BALLOU, Mr. S. F. ASHBY, Mr. F. HARDY, and Mr. T. G. MASON, the scientific officers of the Imperial Department of Agriculture, who have now also become Professors of the West Indian Agricultural College. While regretting, therefore, the disappearance of *The Agricultural News* in the heyday of its useful career, tropical agriculturists can look forward to the appearance of a successor which will embody many of its more useful features. Meanwhile, we have offered the hospitality of our columns to the Imperial Commissioner of Agriculture, so that the fullest publicity may be given to the work of the Department over which he so ably presides. This has been accepted, and we are consequently able to publish to-day the first of a series of articles and notes relating to West Indian agriculture which will, it is hoped, be appreciated not only by our regular readers, but also by those of *The Agricultural News*, among whom they will, as far as possible, be circulated.

SYNTHETIC SUGAR.

IN the course of a paper read at a meeting of the Chemical Society, on May 5th, by PROFESSOR E. C. C. BALY, reference was made to the possibility of the commercial production of synthetic sugar. The late PROFESSOR BENJAMIN MOORE made the first advance in the direction of the synthetic production of sugar, by showing that, in the presence of iron, formaldehyde was produced when a solution of carbonic acid was exposed to ultra-violet rays; and he also showed that this formaldehyde was, in its turn, converted into a sugar when exposed to these rays. The secret of this process, PROFESSOR BALY went on to say, had been discovered in the Liverpool laboratories, where it had been found that when certain coloured basic substances had been employed, carbonic acid could be converted directly into formaldehyde in ordinary sunlight, these coloured basic substances acting in precisely the same manner as does the

green chlorophyll of the leaves of the plant. He also stated that considerable quantities of sugars had in this way been produced in the Liverpool laboratories. It has long been believed by investigators in plant chemistry that the first process that takes place in the living plant cell is the production of formaldehyde from carbonic acid and water, and that the next stage is the conversion of this formaldehyde into the simple sugars, glucose and fructose, which combine among themselves to produce cane sugar, starch, and other complex carbohydrates, as occasion requires. PROFESSOR BALY did not state what description, or descriptions, of sugar had been already produced, but it may be assumed that the synthetic formation has not gone farther than that of the simple sugars to which reference has been made, which would fall considerably short of even the laboratory production of cane sugar. But in any case, there is no cause for our sugar planting friends being alarmed at the announcement of PROFESSOR BALY, as there would be little probability of a synthetic cane sugar ever being able to compete in price with the natural product, even if scientists succeeded in imitating the operation of Nature so far as to be able to make it. The price which sugar fetches in normal times is an effectual safeguard in this respect. The plant pays nothing for the raw material from which it makes its sugar, the planter only providing the means of keeping the machinery going by agricultural processes, while the synthetic production of sugar on a commercial scale would mean a considerable expenditure in the direction of carbonic acid alone—even if the gases from factory chimneys were utilised for the purpose.

WEST INDIAN CURRENCY.

A Departmental Committee Appointed.

The Secretary for the Colonies has appointed a Committee to consider what, if any, changes are desirable in the currency systems of the West Indian Colonies, and whether any improvements are required in the existing facilities for exchange between these Colonies and the Mother Country.

The members of the Committee are as follows:—The Hon. W. Ormsby-Gore, M.P. (chairman), Sir James Stevenson, Bart., Mr. F. Wise, M.P., Lt.-Colonel Sir John Chancellor, K.C.M.G., D.S.O., Sir Gilbert Grindle, K.C.M.G., C.B., and Mr. E. R. Daruley (Colonial Office), Mr. H. E. Fass (Treasury), Mr. P. H. Ezechiel (Crown Agents for the Colonies), Colonel Ivan Davson, O.B.E., Mr. Charles H. Hewett (Colonial Bank), Mr. T. R. Whitley (Royal Bank of Canada), Mr. R. Rutherford and Mr. Algernon Aspinall, C.M.G. (West India Committee), and Mr. R. A. Wiseman (Colonial Office), secretary.

The attention of readers is called to the announcement regarding The West India Committee's new map of the West Indies, which appears on page 235.

COLONIAL CIVIL SERVICE.

The following transfers, promotions, and appointments affecting the British West Indies have been recently made by the Secretary of State for the Colonies:—

Major H. W. Peebles, D.S.O., Commissioner, Montserrat, Leeward Islands.

[Major Peebles, who had joined the Canadian Mounted Infantry in 1899, served in the South African War from 1900 to 1902, being severely wounded and gaining the Queen's Medal with four clasps and the King's Medal with two clasps. In the Somaliland Campaign of 1903-1904 he served as A.D.C. to Brigadier-General Sir William Manning, K.C.M.G., C.B., in the latter year becoming A.D.C. and private secretary to Sir Bickham Sweet-Escott, K.C.M.G., Governor of British Honduras, where he commanded the Belize Light Infantry Volunteers. After two years in Nigeria, in 1907 he acted as private secretary to Sir Bickham, who was then Governor of the Leeward Islands. In 1913 Major Peebles was appointed clerk and private secretary to the Administrator of Dominica, where he raised and commanded the local defence force on the outbreak of war the following year. With the B.E.F. in France he was four times mentioned in dispatches, being awarded the D.S.O. in 1917. He was appointed Commissioner of the Virgin Islands in July, 1919.]

Mr. Archibald J. Brooks has been appointed Director of Agriculture for the Gambia.

[Born in 1881, Mr. Brooks received his early training at Kew, and went out to Dominica in 1903 as Officer in Charge of the Agricultural School there. He was transferred to St. Lucia in 1911 as Agricultural Superintendent, and became Officer in Charge of Rennie Estate in 1913. He is the author of "The West Indian Lime" and other works. For some years Mr. Archibald Brooks has been Hon. Correspondent of The West India Committee for St. Lucia, and his interesting letters from that colony will be missed by readers of the CIRCULAR.]

Mr. H. K. M. Sissett, Chief Justice, British Honduras.

[Mr. Herbert K. M. Sissett was educated at Harrison College, Barbados, and called to the Bar by the Inner Temple in 1896. In 1897 he was appointed acting junior police magistrate at Bridgetown, going the following year to Jamaica, where he practised at the Bar until 1903, acting during this period as private secretary to Sir A. Hemming and Sir Sydney Olivier. For the next five years he served as resident magistrate of various parishes. In 1907 he was appointed Registrar-General of British Honduras and District Commissioner of Belize, being transferred in 1913 to British Guiana as Stipendiary Magistrate, in which capacity he was highly commended by the Secretary of State for his inquiry into the Rose Hall riots.]

Mr. A. N. Wolfsohn, Surveyor, British Honduras.
Dr. H. C. Bell, Medical Officer, Abaco, Bahamas.
Second Lieut. N. S. B. Vinter, Medical Officer, District 6, St. Kitts, Leeward Islands.

Capt. J. R. Anderson (Inspector of Police, Barbados), Assistant Commissioner of Police, Northern Provinces, Nigeria.

SOME NOTES OF INTEREST.

"ONE finger can't catch louse."

* * *

It has now been definitely decided that a financial expert shall be sent to Jamaica to report on the finances of the Colony.

* * *

THE HON. T. R. ST. JOHNSTONE, the Colonial Secretary of the Leeward Islands, has arrived in London on three months' leave of absence.

* * *

THE value of the imports into the British West Indies in 1920 was about £12 per head of population, as compared with £42 in the United Kingdom.

* * *

AN excellent portrait of Mr. S. Cameron, chairman of Messrs. Booker Bros., McConnell & Co., Ltd., appears in the *Canadian Gazette*, of May 11th.

* * *

MAJOR THE HON. J. A. BURDON, C.M.G., Administrator of St. Kitts-Nevis, arrived in England in the s.s. *Commodore*, on May 5th, on leave of absence.

* * *

THE revised edition of the Laws of British Guiana, which have been compiled by Dr. J. J. Nunan, K.C., LL.D., are now in the hands of the printers, and will be published shortly.

* * *

THE West Indian Produce Association, of 14, Creechurch Lane, London, E.C., has recently added Bahamas sponges to the growing list of West Indian commodities which it retails.

* * *

THE Nourse Line steamer *Hughli*, which sailed recently from Calcutta for the West Indies, had on board 101 repatriated Indian immigrants who have been permitted to return to the Colony.

* * *

MRS. MUSSON, who died at Kinnaid House, Upper Norwood, on May 14th, was the widow of Mr. Peter Musson, for many years senior partner in the firm of S. P. Musson, Son & Co., of Barbados.

* * *

MR. J. W. CLARK has been appointed a Director of the Royal Mail Steam Packet Company. Mr. Clark has been for many years in the Company's service, and after holding the position of Assistant Manager, was appointed General Manager in 1912.

* * *

THE people of St. Vincent, Bequia and the Northern Grenadines have offered as a wedding gift to Princess Mary a table made of local woods. The presentation was made by the Hon. Mrs. Gideon Murray at Chesterfield House, on May 12th.

* * *

A REMARKABLE increase in the consumption of syrup from cane juice has taken place in the United States in the last few years, and the production has increased from 28,000,000 gallons in 1909 to more than 41,000,000 gallons in 1921, a growth of nearly 80 per cent.

MR. G. E. BODKIN, until recently Assistant-Director of Agriculture and Government Economic Biologist in British Guiana, is passing through London on his way to Palestine to take up the position of Government Entomologist there, to which he was recently appointed.

* * *

CAPTAIN KENNETH G. B. DEWAR, C.B.E., R.N., who was in charge of the Gunnery School at Devonport and Assistant Director of Plans at the Admiralty during the war, has been appointed to the command of H.M.S. *Calcutta* in succession to Captain Walter B. Crompton, D.S.O., M.V.O.

* * *

THE quantity of molasses which went into consumption in the United Kingdom during the months January to April, free of duty, for use in distilleries and as food for stock was 720,905 cwt., or a little over 50,000 gallons. Of this quantity 818,284 cwt. were imported, and 407,641 cwt. made in refineries.

* * *

THE Commission of Agricultural Enquiry recently appointed in the United States reports that there is one retail grocer to 73 families, or 315 individuals. If all the sugar consumed in the United States passed through the retail grocers' hands, the quantity retailed by each would be 26,880 pounds annually.

* * *

IN connection with the new process for the manufacture of paper from rubber latex, *The Chemical Age* states that the Rubber Growers' Association has arranged for the necessary supply of latex for the experiments. Experiments are also going on in the direction of the use of latex in the manufacture of paints.

* * *

MR. T. R. ST. JOHNSTONE, Colonial Secretary of the Leeward Islands, is the author of a new book entitled, "South Sea Reminiscences," which is being very well reviewed. Describing the position of Fiji, he quotes a thirsty friend who said, "If you put a corkscrew in at the Criterion it would come out at Mac's, in Fiji."

* * *

THE production of saccharin in the United Kingdom continues to diminish. In January to March of the present year 92,021 ozs. were produced, of which 83,173 ozs. were exported and 8,848 ozs. retained for consumption. In 1921 the corresponding figures were 886,909 ozs., 288,788 ozs., and 59,176 ozs., and in 1920, 1,085,835 ozs., 243,931 ozs., and 791,904 ozs.

* * *

THE total quantity of home-made spirits consumed in the United Kingdom in the quarter ending March 31st of the present year was 2,941,285 proof gallons, as against 3,437,289 gallons and 4,881,968 gallons for the corresponding periods of 1921 and 1920. The consumption of imported spirits for the same periods was 603,824 gallons, 1,002,052 gallons, and 1,738,822 gallons respectively.

PERHAPS the most curious form of sugar which exists is that which comes from the needles of the Douglas pine, that forms such a prominent feature in the vegetation of the northern part of the American Continent. For centuries the Indians have gathered the snowy white blobs when they fall from the tips of the fir needles, where the sweet exudations collect and harden. The sugar is said to be delicious in flavour.

* * *

ACCORDING to a cablegram from Mexico City, the Mexican Government has been informed by Great Britain that she is willing to accept the boundary line between the Mexican territory of Quintana Roo and British Honduras as recommended some time ago by a special Mexican committee. Work of placing the necessary markers is to begin immediately. The boundary line in question runs through a desert country.

* * *

THE island of Barbuda, says *The Times* of May 8th, is the latest addition to the stamp-issuing Colonies of the British Empire. As a dependency of Antigua it has shared hitherto the postal issues of the parent island. A special series has now been provided in the form of contemporary postage stamps of the Leeward Islands, over-printed with the name "Barbuda" in red or black. This will doubtless be followed in due course by stamps of a more permanent character.

* * *

SIR W. G. ARMSTRONG, WHITWORTH & Co., LTD., have formed a separate section to deal with the volume of business facing them in connection with hydro-electric matters. The new department will deal with complete water-power development schemes—and its various component parts—and in this connection the company now have survey parties out in many parts of the world. The offices of the Hydro-Electric Department are at 8, Great George Street, Westminster, S.W.

* * *

MR. HAROLD HOLDEN WHITE, whose death at Funchal was announced in *The Times* of May 18th, was partner in the firms of Henry White & Co. and E. H. Keeling & Son, both well known in the West India trade. Called to the Bar by the Inner Temple, he entered the City in 1890. For some years before his death he had been in indifferent health, as a result of strain and exposure during the war, when he served in the Headquarters Division of the Special Constabulary.

* * *

THE imports into the United Kingdom, in cwts., of cinnamon, ginger, and pepper for the first four months of 1922, 1921, and 1920 were:—

	1922	1921	1920
Cinnamon	533	459	9,162
Ginger	15,487	3,384	9,491
Pepper	39,834	35,924	58,543

The exports, in cwts., for the same periods were:—

	1922	1921	1920
Cinnamon	457	856	3,491
Ginger	6,060	4,027	21,498
Pepper	22,967	25,500	59,795

THE famous band of the West India Regiment is to play at the World Exhibition at Toronto in August and September. They are to appear in their full war paint—with Zouave jacket, fez, gaiters, etc.—and the officer in command is in a quandary. The uniform was discarded during the war in favour of khaki, and no specimen uniform is available in England or in Jamaica. Consequently, the Band President has been compelled to advertise for a Zouave uniform, which it is hoped will be forthcoming.

* * *

"By the way," writes Britannicus, in his *Empire Causerie*, which forms an interesting and entertaining feature of the *Financial News* every Thursday, "I was hugely diverted by the final comment in the leading article of the current WEST INDIA COMMITTEE CIRCULAR. Not to reproduce it verbatim would be a grave omission.

"'Coming now to the spirit duties,' the CIRCULAR laments, 'it is a matter for regret that these should remain unchanged, and thus leave little hope for a revival in the demand for rum, the price of which is at present beyond the means of the working man.' How the Pecksniffs will prick up their ears at this reference to 'the demon rum.' It was useful enough for stimulating the shivering dwellers in trenches, though some would have deprived them of its warm glow, even in mid-winter on the Western front. To make it more accessible to the small consumer would be greeted with a howl. I wish The West India Committee good fortune in their endeavour, but I fear very much that in venturing to hope for such a policy as reduction of the rum duty, they are making, in comparison, Mark Tapley appear a dour pessimist."

BLACK CRAB PEPPER-POT.—A capon stewed down, a large piece of beef and another of ham, also stewed to a jelly; then six dozen land crabs, picked fine, with their eggs and fat, onions, peppers, ochra, sweet herbs, and other vegetables of the country, cut small; and this, well stewed, makes black crab pepper-pot.—*Lady Nugent's Journal*.

THE following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :—

- "The Manufacture of Cane Sugar," by Jones and Scard; 26/.
- "The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/.
- "Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/.
- "The Cane Sugar Factory," by F. J. Scard; 3/.
- "The Pocket Guide to the West Indies"; 7/6.
- "West Indian Tales of Old," by Algernon Aspinall; 8/.
- "The British West Indies," by Algernon Aspinall; 9/6.
- "Historic Jamaica," by Frank C. Cudall; 8/.
- "A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6. These prices include postage.

WEST INDIAN AGRICULTURE.

Activities of the Imperial Department.

By arrangement with Sir Francis Watts, K.C.M.G., D.Sc., Imperial Commissioner of Agriculture, there will be published in these columns, under the above heading, from time to time, information of interest regarding the work of the Imperial Department of Agriculture. When it became known that the publication of "The Agricultural News," the official organ of the Department, was to be suspended pending the publication of a journal by the West Indian Agricultural College, the CIRCULAR very gladly offered the hospitality of its columns to the Commissioner.

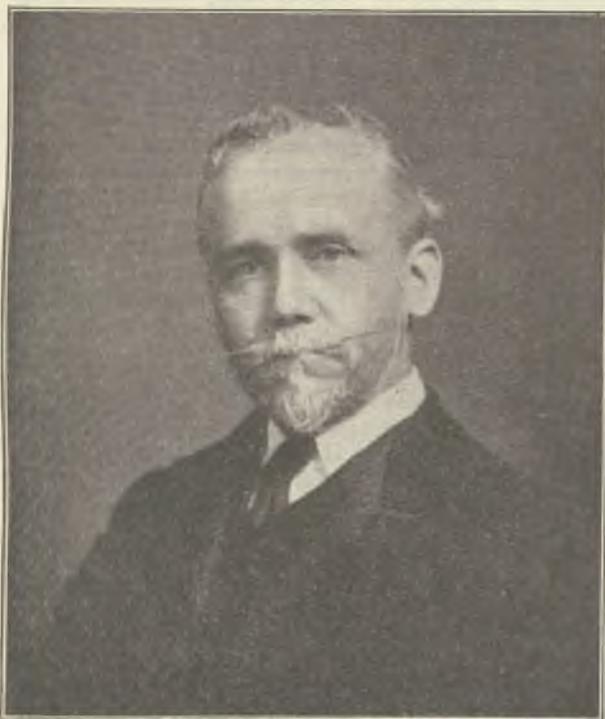
Mr. F. Hardy, M.A., Chemist to the Imperial Department of Agriculture, has written three important papers on West Indian soils and on the meaning of liming soils, which have been published recently in the *West Indian Bulletin* (Vol. xix., Nos. 1 and 2). The paper on liming explains the tremendous complexity of what has until recently been regarded as a relatively simple soil treatment. Liming may have at least six different and important effects on the soil. It frequently alters the texture of soils and improves aeration, reduces the strength of acidity, i.e., in modern scientific parlance, it depresses the hydrogen-ion concentration. Liming increases the calcium content; it also allows calcium-ions, the "units of the element calcium in solution," to antagonise other ions which are toxic to plants and bacteria; liming may bring about the precipitation of certain organic and inorganic substances toxic to plants, an entirely different process to the previous one; liming, furthermore, may increase availability of certain valuable ions by displacement (e.g. potassium from mineral silicates).

The fact that these effects are so diverse throws some light on the discrepancies of experimental results observed so often in the past in regard to liming. The effects show that liming may benefit even a soil of neutral reaction; on the other hand, it may not be always wise to lime just because a soil is acid. Indeed, there is abundant evidence to show that some acid soils are extremely fertile in the tropics, and that certain crops prefer a feebly acid reaction. A large number of loosely written articles have appeared on the question of liming, and it is time that planters should be more critical as to their soundness from a scientific and, therefore, a practical standpoint.

The papers on West Indian soils will be found as equally enlightening as the one on liming. So far, Mr. Hardy has dealt with the soils of Dominica and Montserrat, but another paper on the soils of St. Kitts is in preparation. The studies in these papers break new ground and attack the nature of the soils in question from the physico-chemical standpoint, with reference to colloidal matter, maximum water-holding capacity, permeability to water, reaction, organic matter, etc. The old idea of just analysing a soil to show the percentages of

nitrogen, phosphates and potash, and the proximate mechanical composition, is archaic and broadly insignificant. The fundamental things to know about a soil are its water-giving capacity, its aeration, its reaction (acidity), and its balance of plant nutrients. It is time West Indian planters engaged themselves in acquiring this new outlook. It is only right to mention here that much of Mr. Hardy's writings is based on recent research in the United States; but it is the first time that these new points of view have been brought to the public notice in the West Indies.

We may turn now from the study of soil science to notes of lighter interest. The Imperial Department of Agriculture receives monthly reports as



Photograph by

[Elliot & Fry.]

Sir Francis Watts, K.C.M.G., D.Sc.

First Principal of the West Indian Agricultural College and Imperial Commissioner of Agriculture for the West Indies.

to agricultural progress from many of the West Indian islands, and recent reports show, in most cases, a moderately satisfactory state of affairs. Prices, of course, are low everywhere, especially for ground provisions, which seem to be exceedingly plentiful. This is especially so in Grenada and St. Vincent. In the former island sweet potatoes during March were selling as low as $\frac{1}{2}$ d. per lb. A report from Dominica refers to limes. The total crop of limes at the Lime Experiment Station was, for the year ended March 31st, 2,485 barrels, and realised £456 8s. 3d., an average of 8s. 8d. per barrel.

Following good rains, say other reports for March, the majority of the cotton acreage in Montserrat, and a large proportion of it in St. Kitts, were planted. Good germination and

regular stands were obtained in both islands, though subsequent weather has acted somewhat unfavourably in Montserrat. In both islands selected pedigree seed, properly fumigated against pink bollworm, was used. From Montserrat, 2,000 lb. of cotton seed has been shipped for planting purposes to Tortola (Virgin Islands).

Much better yields of sugar-cane are being obtained during the present West Indian crop than was formerly expected. This applies particularly to Barbados and St. Kitts. Increased consideration is being given in the former Colony to the necessity of eradicating mosaic disease, made prominent by recent reports showing the great losses that have been incurred through the disease in Porto Rico. On the whole, the young cane crop is very satisfactory.

The past year has been marked by representations of the sugar planters in many Colonies (particularly Jamaica, Barbados and Demerara) for Government aid in respect of the depression. Last month the sugar planters of British Honduras showed that locally produced muscovado and yellow crystal sugar was selling at 4c. per lb. (retail), and costing 3c. to 4½c. per lb. to produce; while white granulated sugar from the United States and Guatemala was being landed in Belize at \$5.60 per bag of 100 lbs., duty paid. The Governor's motion to protect the local industry by increasing the import duty was strongly opposed in the Legislature, and withdrawn.

The seven Agricultural Instructors required by the Nigerian Government, whose selection was relegated to the Imperial Department of Agriculture, have been obtained, after some difficulty, from 120 applications. Four have been selected from Grenada, two from Trinidad, and one from Demerara.

For some years the Imperial Department has been endeavouring to stimulate pig-raising as an organised industry for the West Indies. A memorandum on the subject circulated a few months ago amongst agricultural officers is producing encouraging results. Enterprise is being shown already in St. Vincent, St. Lucia and Montserrat, and the project, as a whole, has received a sympathetic reception in most islands. The object is to raise pigs in herds instead of in units, tied by one leg to a stake. Pigs thrive well and give firm meat in the West Indies if properly bred, fed and handled; the West Indies (excluding Jamaica and British Honduras) import pig products worth \$1,000,000 annually, and there is a vast market in the United Kingdom—most of which is supplied by the United States. It is hoped to establish, in time, one or more pork and bacon factories in the West Indies. A small bulletin on certain practical aspects of the new industry is being prepared for general distribution amongst planters and agricultural officers.

(Continued from next column.)

directly assist all those who depended for their livelihood upon the industry. Mr. Wood further alluded to the general hope of better conditions, which he said must also have a beneficial effect on the sugar industry.

THE SUGAR PREFERENCE.

A deputation representative of the Empire's sugar interests waited upon the Hon. Edward Wood, Under-Secretary of State for the Colonies, on May 11th, to ask for an increase in the preference in the customs tariff accorded to Empire sugar in view of the depressed state of the industry. It comprised Mr. A. W. Farquharson (chairman of the Jamaica Imperial Association), Colonel Oldershaw and Mr. Charles McNeil (Australian Sugar Producers); Mr. W. Scott Herriot (British Empire Sugar Machinery Manufacturers' Association); Mr. F. French Kemp (British Beet Growers' Society); Mr. W. C. Noxon (Canadian Beet Sugar Industry); Mr. A. Bigland, M.P. (Empire Development Parliamentary Committee); Mr. A. D. Jackson (Indian Sugar Producers' Association); Mr. Louis Souchon and Mr. J. W. Holloway (Mauritius); Hon. J. G. Jenkins (Royal Colonial Institute); Mr. W. J. Mirlees (South Africa).

Mr. Ben Morgan, Chairman of Council of the British Empire Producers' Organisation, who introduced the deputation, outlined the general position, pointing out that the market price of sugar to-day was actually below the cost of production, and if some extraordinary measures were not taken without delay to deal with the situation, numerous sugar estates would go out of cultivation; and sugar estates took several years to restore to a normal condition of cultivation. This retrograde movement had started notwithstanding the fact that the Empire supply was far short of the Empire demand. He showed, too, how serious would be the effects of the destruction of the Empire's sugar industry upon the taxpayer and consumer in this country.

Mr. Farquharson referred to Mr. Wood's recent visit, and strongly emphasised the condition into which the sugar-planting industry would fall unless it received substantial and speedy support at the hands of the Imperial Government. Mr. Farquharson mentioned the loyalty of the West Indian colonists, and pointed out the bad effect of their coming to regard American influence as making for prosperity and opulence, and British influence as causing penury and uncertainty.

The views of the other parts of the Empire having been similarly set forth, Mr. Wood, in the course of a sympathetic reply, pointed out that the position of the Chancellor of the Exchequer was difficult, as he had to adjust the competing claims of equally valid competing demands. He recognised the strength of the argument advanced by the Colonies that had given preference to Great Britain, largely impelled by the representations of the Imperial Government. The Government had not seen their way to double the preference, but they had promised to continue the existing rate of preference (one-sixth of the gross duty) for a period of ten years; and, as far as the money value went, by not reducing the gross duty the Government had, at least for one year, left that value undiminished. This was a concession of great value in that it afforded ground for confidence that would

(Continued at foot of preceding column.)

BRITISH GUIANA AND ITS NEEDS.

By JOHN B. LAING.

Mr. John B. Laing, who was born in Berbice, was in the Colonial Bank from 1871 until 1894, when he went to Demerara as Joint Attorney of Messrs. Sandbach, Parker and Co. In 1904 he became Managing Director of the British Guiana Bank, which position he continued to fill after that institution was taken over by the Royal Bank of Canada, until 1919, when he retired. Between 1914 and 1919 he filled many public positions, and served as a Member of the Combined Court and Executive Council of British Guiana. He recently revisited the Colony, and now records some of his impressions below.

After an absence of very nearly three years, I found Demerara changed in many ways, and greatly missed many old friends, especially amongst the social and mercantile community.

Owing to the sudden fall in the price of sugar, rum, and rice, the staple exports of the colony, I was quite prepared for depression all round, but found things much worse than I expected. However, this is not the first time that the colony of British Guiana has been face to face with a serious crisis in its history, and it will, I am sure, emerge from the present one stronger and more stable both agriculturally and commercially than in past years. If so, then out of evil will have come good. Over-speculation in local shares will cease, and the lesson learnt during 1920-21 will prove of great use to the whole community.

I am glad to say that the labouring population have taken the necessary reduction in wages, both on the wharves in Georgetown and on the sugar estates, in a good spirit, and so far there has not been as much trouble as there has been, and still is, in this country.

Much good is expected to accrue, not only to British Guiana, but to the West India Islands also, from the recent visit of the representative from the Colonial Office and the searching inquiries held as to the present condition of these colonies and their future possibilities. The visit of Sir Edward Davson, and the keen interest taken by him in all that concerns British Guiana and the West India Islands, will, I am sure, bear good fruit in the near future, but in any case he deserves the thanks of all colonists in these places. Would that we had more men ready and capable of assisting in the reconstruction and building-up of the economic and commercial life of these old and valuable colonies!

British Guiana is, in my opinion, capable of great expansion. It can largely develop its sugar export, if only given fair play; the rice industry is suited in every way to attract large numbers of East Indians, and can be greatly expanded. I therefore hope that the deputation sent from India will report favourably as to the status of the East Indian in British Guiana and suitability of climate, with the result of a steady flow of labourers into the colony from India, by which the sugar and rice industries will benefit.

The interior of British Guiana is but little known

owing to want of communication, but I trust that before long the much-talked-of railway will be started, for, once let the capitalist in this country grasp the fact of the vast resources of the colony in timber, gold, diamonds, and money to be made by the establishment of cattle ranches on the large savannahs, I feel more than hopeful that the money to construct the railway will be found. Be sure of this: if the English capitalist does not find it, the American will, for his countrymen are already much interested in the colony, and are becoming more so every year.

At the moment what is most required is the dredging of the bar and improvement in guiding-lights to the port, for until this is done there can be little or no improvement in steamer communication with outside countries. Better cable communication is also greatly needed if business with other countries is to be carried on successfully on modern lines.

Given capital, a good supply of labour, and a Government watchful over its expenditure, there is no place I know of with greater possibilities than British Guiana.

NEW MAP OF THE WEST INDIES.

To ensure early delivery of The West India Committee's new map of the West Indies, orders should now be sent to the Secretary, The West India Committee, 15, Seething Lane, E.C.3. The size of the map, which is handsomely coloured, is 48 by 37 inches, and the scale is 1 : 3,500,000, or 55 miles to the inch. The map extends from Tampa, Florida, in the North to the extreme Southern boundary of British Guiana in the South, and East to West from Paramaribo to Guatemala. The principal railways, steamer routes (with distances in nautical miles), submarine cables, wireless telegraph stations, and coaling and oil fuel stations are all clearly indicated, and the following islands and groups of islands are shown on the enlarged scale of 1 : 1,500,000 by means of insets: Jamaica, the Windward Islands, the Leeward Islands, Barbados, and Trinidad and Tobago.

An enlarged plan of the Panama Canal is also given on the scale of about three miles to one inch, and a route map showing the various connections between the West Indies and Central America and Canada and the United States. There is also a valuable statistical diagram giving the area and population of the British West India Islands, with the number of persons per square mile, based upon the 1921 Census, with additional figures for British Guiana and British Honduras. An inset of Wales provides a useful scale of comparison in size with the countries and islands shown upon the map. Generally, the map has undergone most careful and thorough revision. The price of the map will be:

Sheet	7/6	Post free	8/6
Mounted and folded	15/-		15/6
Mounted on cloth and varnished, with rollers			12/6
Carriage free (inland) 14/-; abroad according to destination.			

TRINIDAD FRUIT INDUSTRY.

At a general meeting of the Trinidad Agricultural Society, held on March 9th, Mr. W. G. Freeman, the Director of Agriculture, read a paper on the subject of the establishment of a fruit industry in Trinidad. After stating that it was recognised that tropical fruits of good quality could be grown in both Trinidad and Tobago, Mr. Freeman said that from the time of the Governorship of Sir William Robinson efforts had been made in the establishment of a fruit industry, the first practical step having been taken by Mr. W. W. Symington, of the British West Indian Fruit Syndicate, in 1903, who formulated a scheme in which growers were assisted and arrangements made for shipment. The results were not financially successful, the reasons for the failure given by the shipping syndicate being:

1. Lack of knowledge amongst growers of the cultivation, harvesting and handling of fruit.
2. The inferior quality of much of the fruit and its unsuitability for outside markets.
3. Want of transport organisation.
4. Expenses incurred in experimental and educational work.

In 1906 a contract was entered into through the Crown Agents, between the Government and the syndicate, under which a subsidy was granted to the syndicate. This was terminated by the syndicate in 1907.

Quite recently the matter was again taken up, the formation of a Co-operative Fruit Growers' Association being proposed, in point of view of which the following desiderata for successful trade were given by Mr. Freeman.

1. A central depot in Port-of-Spain (similar to the ground provisions depot) to which fruit can be consigned to be bought outright. The depot to have proper facilities for receiving orders and distributing fruit to purchasers. This might be obtained by an extension of the business of the present depot, which preferably should have suitable premises provided with a shop window in which fruit could be displayed in an attractive manner.

2. The cultivation and proper handling of the fruits to ensure their reaching the consumer in good condition.

The necessary steps to establish a fruit industry appeared to Mr. Freeman to be:

1. Arrangements for the purchase and sale of fruit through a central depot, possibly as a development of the Government Ground Provisions Depot. Fruit could be sent in from any railway station or steamer depot, and its value received by the sender by means of an order on the collector of the station, as done already for ground provisions and bananas. Fruit could be delivered to the consumer as with ground provisions now.

An attractive display of fruit should be made in Port-of-Spain and efforts made to render good quality fruit more readily accessible to those requiring it.

2. The development of an export trade in citrus fruits and bananas.

OUR WEST INDIAN TRADE.

The values of the exports of articles produced and manufactured in the United Kingdom to the British West Indies for the first four months of the present year, as compared with the corresponding period of last year, were:—

	1922.	1921.
	£	£
British West Indian Islands ...	733,498	1,328,854
British Guiana ...	149,783	380,459
British Honduras ...	29,118	32,487
Bahamas ...	156,532	100,165
Total ...	£1,068,931	£1,841,965

The total values of the exports from the United Kingdom to all countries for the same period were

	£
1922 ...	186,062,852
1921 ...	227,786,786

The values of the imports into the United Kingdom for the same periods were:—

	1922.	1921.
	£	£
British West Indian Islands ...	621,404	1,430,674
British Guiana ...	426,608	765,206
British Honduras ...	2,388	106,593
Bahamas ...	5,062	8,544
Total ...	£1,055,462	£2,311,017

The total values of the imports from all sources were for the same periods:—

1922 ...	£233,709,547
1921 ...	£307,631,757

BANANAS FOR SWITZERLAND.

Matters are now all in trim, says the Basle correspondent of the *Manchester Guardian* (May 4th), for the importing of West Indian bananas into Switzerland in large quantities. After lengthy negotiations, permission has at last been definitely secured to establish a distributing depot in Zurich, provided only Swiss labour is employed, and this establishment will soon be in full working order. But meanwhile a depot has already been set up in Basle, a large warehouse having been specially equipped for the ripening and distribution of the fruit.

The scientific treatment of the green fruit is a matter of great importance to the consumer, but has hitherto by no means been understood in Switzerland; consequently it has always been a lottery, when buying bananas retail in Swiss shops, as to whether they would be in good condition or not. This disability will no longer apply. All that is wanted now, in the interests of all concerned, is that the Swiss Government should remove the absurd tax of £7 10s. a ton on banana imports. There can be no defence for a tax on wholesome food, the sale of which in no way injures any native product.

A RECORD CENTRIFUGAL ORDER.

An American firm of sugar-machinery manufacturers recently claimed that a "record" contract for centrifugals had been placed with them. It was to supply 48 centrifugals; but in point of size this order has been easily eclipsed by one received by Messrs. Pott, Cassels and Williamson, of Motherwell, Scotland, who have just shipped a battery of 75 machines, for delivery to the Tjomal Sugar Factory, Pekalongan, Java, one of the largest factory refineries in the East Indies, which in 1921 ground 171,291 tons of cane.

The installation is arranged in two double-row batteries of forty-two and thirty-three machines respectively, the baskets being of steel 36 in. in diameter by 18 in. deep. There are four distributing mixers, one for each row of machines, and each mixer is driven by its own electric motor through bevel and worm gear.

A motor of the vertical type—which runs at about 1,200 revs. per minute—is placed above each machine for driving purposes, and connected to the centrifugal by a special form of friction clutch, this clutch also acting as a flexible coupling. The switches are of special design, being interlocked with the brakes, so that it is impossible for the brake and current to be "on" at the same time. The important duty of suspending the machine is carried out by the "solid" type of spindle, having the makers' well known arrangements of ball and sleeve bearing, with its self-adjusting indiarubber buffers.

Each centrifugal is fitted with inside and outside steaming apparatus, with an arrangement for supplying superheated steam to the baskets, and vapour pipes and automatic valves for carrying the vapours away from the outer collecting cases. All the supporting framing is of mild steel, with a steel chequer plate platform 6 ft. 6 in. high, thus giving very ample headroom for approach to the accessories under the centrifugals. In all, there are 88 electric motors embodied in this super plant. There was, obviously, keen competition among Continental and other makers of centrifugals for this valuable contract, and it is very encouraging to find that in these days of difficult trading one of our own engineering firms should have succeeded in securing and carrying out this record order. A photograph of the battery of centrifugals appeared on page xxvi. of last CIRCULAR, and will be shown again in next issue.

ARRANGEMENTS have now been made whereby subscriptions to The West India Committee can be paid at any of the branches of The Bank of Nova Scotia in Jamaica, besides those of the other Banks already named. This will no doubt be a convenience to members in Jamaica, who will now have ample opportunity of paying their dues with a minimum of trouble, since the Bank of Nova Scotia has branches at Kingston, Mandeville, Savanna-la-Mar, Black River, Montego Bay, St. Ann's Bay, Port Maria, Port Antonio, Spanish Town, Morant Bay, and Linstead.

THE SPIRIT DUTIES.

The West India Committee have received the following letter from the Treasury in reply to theirs of March 24th (published in the WEST INDIA COMMITTEE CIRCULAR of April 18th), in which they urged a reduction in the Spirit Duties:—

Treasury Chambers,
10th May, 1922.

Sir,—The Lords Commissioners of His Majesty's Treasury have had before them your letter (No. 7804) of the 24th March last to the Chancellor of the Exchequer, in which you express the hope that it may be found possible to make a substantial reduction in the duties on British spirits.

In reply I am to request you to inform your Committee that, as it is impossible to treat spirits imported from the Colonies more favourably than home-manufactured spirits, the duty on rum could not be reduced without dealing in the same way with home-manufactured spirits; and that, having regard, amongst other considerations, to the serious loss of Revenue involved, My Lords cannot in present circumstances entertain any such proposal.

I am, Sir, etc.,

B. P. BLACKETT.

The West India Committee fully appreciated that it would obviously not be possible to differentiate between colonial and home-manufactured spirits; but it was hoped that an all-round reduction would have been possible in the present high duties, which have reduced consumption to such a low level that the revenue is suffering.

BRAZILIAN SUGAR COMBINE.

The Brazilian valorisation plan in connection with sugar, along lines similar to that used to control the coffee crop, has, according to a report to the Department of Commerce at Washington, finally been put into effect. The plan was originally approved on January 22nd. It provides for a minimum price of 600 reis per kilo (about £18 10s. a ton) for first-grade sugar at Pernambuco.

Maintenance of this price is to be effected by the creation of a National Sugar Export Bank, to purchase in the open market sugar in such quantity as may be necessary for the purpose. At the date of the report the Pernambuco price was about £12 10s. a ton. Stocks available for export at that date were 3,000 tons at Pernambuco and about 50,000 tons at Rio de Janeiro.

Facts about Sugar states that receipts of 1921-22 crop sugar at Pernambuco, to March 22nd, were 3,146,900 bags (207,695 ordinary tons), against 2,220,800 bags to the corresponding date in 1921.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

THE SUGAR-CANE IN JAVA.

The Java sugar industry is especially interesting, in that Java sugar enjoys no preferential treatment in any country, and yet flourishes, even in Holland. The following description of the methods of cultivation employed is taken from an article by the well-known Dr. Prinsen-Geerligs, in "Commercial Holland."

The land on which the sugar-cane is planted in Java, as a rule does not belong to the sugar planter, but is rented by the estate either from the native population or, as is the case in the residencies of Djokdjakarta and Soerakarta, from the semi-independent native rulers. The sugar-cane is almost exclusively planted in irrigated fields, the irrigation works being the same as those in use for the rice cultivation; and the use of these goes with the land, so that the irrigation facilities accompany the tracts of land taken in for cane cultivation. It results from this method of acquiring land that the cane is planted alternately with rice and other crops, and the common use is to plant the same field with cane once in three years, to cut the latter after something over a year after being planted, and to restore the land to the native owner, who grows rice, tapioca, tobacco, beans, or other articles in the interval, while in every case rice is the crop which immediately precedes the cultivation of cane.

As soon as the rice has been cut in the field selected for cane cultivation, which may be in April or May, the land is prepared for this latter cultivation. First the soil, which in the cultivation of rice has been soaked with water for many months, has to be drained of the superfluous moisture. In cases of loose soil, the whole field is sometimes first ploughed several times in various directions, but in the heavy soil of the greater part of the sugar districts, ploughing gives too much trouble, and it is then treated after the Reynoso system. This consists in digging trenches, which serve for draining the subsoil water, as well as afterwards for supplying the irrigation water; and crosswise intersected gutters and rows, in which later on the plants are to be entrusted to the soil. Then the field remains exposed to wind and sunshine for some time, say, not less than six weeks. In this period the wet, stiff clods of earth, impregnated with water, crumble away into a grey or light-brown powder; and the mineral plant-food contained in the soil, such as potash, phosphoric acid and minor constituents, becomes available, owing to the weathering, to be afterwards absorbed by the cane roots and to supply food for the plant. When during this time, while the fields lie open, rainfall occurs, the soil which is washed down is drawn up on the banks to prevent the furrows from silting up.

Afterwards the hard bottom of the furrows is loosened, or square holes are dug in them. These are filled with loose earth; a portion of the weathered soil of the banks is pushed into the furrow, and then the field is ready to receive the seedling.

This seedling consists of the top of the sugar-cane, which measures a few joints and, as a rule, carries three buds or eyes.

They are cut from the ripe canes at the time of their being crushed, and also from cane intentionally planted for this purpose and which is still in an unripe state.

The tops used for planting are cut in pieces of the desired length; the trash is stripped off, those infected with insects or fungi, or those which are shrivelled or sickly are carefully selected and condemned, while the sound ones are disinfected by means of coppersalts or tar before being planted.

Next the tops thus prepared are laid down in the rows lengthwise and horizontally one after the other, then covered with a layer of earth, after which they are irrigated. This irrigation is repeated every four or five days—afterwards, however, at longer intervals—till the cane has grown up well. The rainy season will then set in and render further irrigation superfluous. Before that time, however, still during the dry season, as the stalks of the cane develop, they are banked up; the secondary stalks sprout, the formation of roots is hastened and the cane stands firmly in the field.

Together with the second and third banking the fields are manured, chiefly with nitrogenous fertilisers, such as sulphate of ammonia, oilcake, saltpetre, and the like.

Weeding is only necessary as long as the cane is not sufficiently high; as soon as the leaves shade the ground, the weeds die off. During the youth of the cane the insects which may harm it, such as boring caterpillars, beetle-larvæ, and termites, are caught; but all labour is suspended as soon as the last banking has taken place and the monsoon has made the roads impracticable.

When afterwards the dry season sets in, the trash is removed from the stalks and soon afterwards the harvest begins.

The cane is, for this purpose, dug out as far as the old seed, and rooted up as completely as possible, care being taken to leave as little cane in the ground as possible. The adhesive earth and rootlets are scraped off, the tops with the green leaves are cut off, being used as cattle food, and the clean stalks are carried to the factory.

It is obvious that all these operations, especially the annual digging up of almost 400,000 acres of land, into deep furrows, requires an enormous quantity of labourers, and it is very fortunate that a dense population of thrifty people is found in the island of Java to allow the cultivation to be done so intensively as is required there to produce a good crop. The labourers have their dwelling houses in the vicinity of the factories, and are entirely free. They are available when they are wanted, and need neither be paid nor provided for during the time when there is no work to be done.

SUGAR IN MAURITIUS.

In a lecture on "Mauritius To-day," delivered recently before the Fellows of the Royal Colonial Institute, Dr. H. A. Tempany, Director of Agriculture in the island, said that sugar was easily King in Mauritius. Plantations of sugar-cane comprised over 80 per cent. of all the cultivated land, and occupied more than one-third of the whole island. The sugar crops for the past five years had averaged nearly a quarter of a million tons, and, with the exception of British India, Mauritius was the largest sugar-producing unit in the British Empire. The phenomenal prosperity which the planters had enjoyed at the close of the war had been followed by the inevitable reaction, but Dr. Tempany testified that up to the present the resulting depression had not been so severe as in some sugar-producing countries. A striking feature of the Mauritian industry in recent years had been the rapid increase in the area cultivated by Indians. Most people who knew anything about Mauritius, knew that Indian labour had been imported to work the sugar plantations; but the inhabitants of the colony were usually identified in the public mind with the French Creole population, and probably very few realised how large was the proportion of Indians. They were, indeed, a preponderating element in the population, forming over two-thirds of the total. The great majority of the Europeans, it was true, were of French descent, but Europeans numbered only about 20,000 out of a total of 370,000, whereas Indians numbered 260,000. In the last decade the area of sugar plantations in the hands of Indian agriculturists had almost doubled, and now amounted to nearly half of the total area under sugar-cane. This was due to the extension of the practice of dividing up estates into small holdings, which were sold on easy terms to small planters, the conditions of sale usually including stipulations that the land should be cultivated in canes and the produce sold to a specified factory on agreed terms. In practically every case the payment for the cane was fixed in terms of sugar—that was, for each ton of cane delivered to the factory, so much sugar, or its equivalent value in cash, had to be paid to the grower. The actual amounts paid usually range between 60 lbs. and 72 lbs. of sugar per ton of cane, and Dr. Tempany considered that, under average market conditions, these terms must be regarded as distinctly liberal—the result of the keen competition between the factories. Altogether there were fifty-four sugar factories in Mauritius, ranging in productive capacity from 1,500 tons to 15,000 tons, and while some of them drew their supplies of cane mainly from the estates to which they were attached, the majority were largely dependent on outside sources of supply—in other words, the small planter. Very few, if any, of the factories were completely up-to-date, though almost all possessed modern machinery. Improvements were being steadily introduced, and Dr. Tempany looked to the further increase of labour-saving machinery, both in the factories and more especially in the methods of cultivation, to provide a solution of the labour problem, which in Mauritius, as in other parts of the world, was coming into prominence now

that the tide of prosperity had returned; for even in that remote island wages had gone up while the number of working hours had gone down. On the other side, the war had brought about the formation of a planters' syndicate, to which practically all the more important sugar producers had adhered, for the purpose of marketing the crop on a co-operative basis.

Dr. Tempany has issued a Bulletin (No. 238) dealing with the experiments on varieties of seedling canes conducted by the Department of Agriculture of that Colony during the season 1918-20.

The results of the observations were that both on the low-country and up-country plots twenty-one varieties showed themselves to be superior to the White Tanna, which is the standard cane of the Mauritius sugar industry. Those which appeared suitable for low-country conditions, but not so suitable for up-country estates, were Sealy Seedling, D.117, P.O.J. 213, 33/55, 108⁰¹, and 267⁰⁶, while the following appeared to be better suited to up-country conditions: D.K. 74/25, D.K. 74/70, 33/100, 33/187, 198⁰⁷, 33/95, 33/229.

The most promising of the canes which appeared to suit both conditions were the Demerara seedlings D.109, R.P.6, R.P.8, and R.P.73, the Barbados seedlings B.6308, and the Mauritius seedlings 75⁰⁰, 33/231, and 55/1182. The highest sucrose content of these was given by 33/231 (18.8 per cent.), and the lowest by R.P.6 (11.5 per cent.).

In 1920, two hundred and sixteen new seedlings were advanced a stage by being planted out, and twenty new varieties from Queensland, Hawaii, and Barbados introduced for observance.

BRITISH GUIANA SUGAR CROP.

"SUGAR" publishes the following figures as regards the British Guiana sugar industry:—

Period	Area under cultivation in acres	Tons of sugar exported per annum	Tons of sugar produced per annum
1879-83	81,270	103,860	110,560
1884-88	80,690	113,920	121,120
1889-93	79,630	110,900	118,600
1894-98	79,640	106,620	109,620
1899-03	74,170	106,260	114,260
1904-08	75,580	110,830	118,830
1909-13	72,640	94,820	102,820
1914-18	76,673	109,700	117,700

Period	Average tons sugar exported per annum per acre cultivated	Average tons sugar produced per annum per acre cultivated	Average tons sugar obtained per annum per acre harvested
1879-83	1.30	1.35	1.60
1884-88	1.40	1.50	1.75
1889-93	1.40	1.50	1.75
1894-98	1.30	1.35	1.60
1899-03	1.45	1.55	1.90
1904-08	1.45	1.50	1.95
1909-13	1.30	1.40	1.75
1914-18	1.45	1.55	1.90

Captain Betram S. Thesiger, C.B., C.M.G., has been appointed a Naval Aide-de-Camp to the King, in place of Captain Henry T. Buller, C.B., C.V.O., A.D.C., promoted to flag rank.

FACTORY WORK IN HAWAII.

In a review of the Hawaiian factory results for the 1921 crop in *Sugar News* of the Philippines, Mr. E. T. Westley points out how the factory work has improved from year to year in Hawaii. But, he says, there is another side to the story. In spite of high extraction, good press work, and good low grade work, less sugar was recovered from the sugar brought to the mill in cane than in any year since 1913. During 1921, 85.86 per cent. of the sugar in the cane was recovered as commercial sugar. In the last ten years there are only two lower years; the lowest on record was in 1913, when 84.95 per cent. was bagged, and the other was in 1912, when 85.66 per cent. was recovered. During 1918 the extraction was 94.25, and in 1921 the average was 97.43. There is no record of the average final molasses for 1913, but it is sure to have been of a very high purity. We find, therefore, that after a lot of hard work and the expenditure of hundreds of thousands of dollars to improve extraction and reduce the purity of the final molasses, a smaller percentage of the sugar brought to the mill in the cane is actually bagged than in other years when extractions were less and gravity purities of final molasses were higher. For instance, the year 1914 shows an average extraction of 95.46 per cent., or 1.97 per cent. less than 1921; the gravity purity of final molasses was 40.40, or 1.87 higher than 1921, yet in that year 86.56 per cent. of the sugar in the cane was bagged, as against 85.86 per cent. in 1921, or 0.70 per cent. more. In 1914 the average first-expressed juice purity was 88.71, in 1921 it was 86.22, or 2.49 lower. The mixed juice purity in 1914 averaged 85.70, and in 1921 it was 82.77, or 2.98 less. The average syrup purity in 1914 was 87.51, in 1921 it was 83.90, or a drop of 3.61; and Mr. Westley, drawing his conclusions from the above facts, says: "High extraction with present method of extracting lowers the purities considerably, and one may have 100 per cent. extraction at the mill, and the molasses may be reduced to a very low gravity purity, yet the recovery will be low if the purity of the juice is low. If the energy and money spent on increasing extraction had been spent in trying to get high purity cane to the mills, the writer feels sure that more sugar would have been recovered."

THE estimated taxation per head of British subjects within the British Isles and the Dependencies is, according to the *Westminster Gazette* of May 4th:

	Population.	Per head.
The British Isles	42,000,000	£2 0 6
Straits Settlements	1,100,000	4 7 5
Hong Kong	500,000	2 6 0
British Guiana	300,000	3 1 0
Trinidad	280,000	3 18 8
Jamaica	650,000	1 7 8
Mauritius	373,000	2 8 0
Gold Coast	1,500,000	1 0 0
Ceylon	3,500,000	0 13 0
Kenya	4,000,000	0 12 6
Uganda	3,500,000	0 4 10
Nigeria	15,000,000	0 3 8½

SUGAR IN THE UNITED STATES.

Some Interesting Statistics.

Some interesting statistics have been published by the Research Division of the Bureau of Foreign and Domestic Commerce of the United States. From these it appears that the United States consumed 10,548,451,000 pounds of sugar in 1921, or 28.4 per cent. of the world production. This represents an increase of 8.4 per cent. over the consumption in 1920, and is 25.9 per cent. larger than the average consumption for the 10-year period ending 1920 (8,376,936,656 pounds). The per-capita consumption in 1921 was the largest in the history of the country, amounting to 97.8 pounds, compared with 91.4 pounds in 1920, 85.8 in 1913, and 58.8 pounds in 1900.

Sugar production in continental United States in 1921 was 2,532,246,160 pounds, an increase of 80.2 per cent. over the 1911-20 average (1,944,565,700 pounds). Domestic production supplied 24.1 per cent. of the consumption in 1921, as compared with 17.4 per cent. in 1920 and 23.7 per cent. in 1919. Of the domestic production, cane-sugar made up 352,264,160 pounds in 1921, an increase of 45 per cent. over 1920, but 30 per cent. less than the average for 1911-20 (504,132,160 pounds). On the other hand, 2,180,042,000 pounds of beet sugar were produced, the largest output in history, and 51 per cent. larger than the average for the 10-year period ending 1920 (1,440,423,600 pounds).

The non-contiguous territories of the United States supplied 2,132,926,730 pounds of sugar for consumption in this country in 1921, which is very near the average for 1911-20 (2,099,446,651 pounds). The amount supplied by the territories in 1921 was 20.2 per cent. of the American domestic consumption for that year, compared with 19.9 per cent. in 1920.

Of the amount supplied by non-contiguous territories, 977,738,902 pounds came from Hawaii, 818,048,880 from Porto Rico, and 337,148,948 pounds from the Philippine Islands. This represents a slight decrease from 1920 in the case of Hawaii and Porto Rico, but an increase of more than 600 per cent. from the Philippines. This large percentage of increase from the Philippines was due to the fact that receipts from there in 1920 were abnormally small (45,387,719 pounds) and the amount in 1921 unusually large.

Imports from foreign countries in 1921 (6,673,041,867 pounds) were less than for 1920 (7,550,195,838 pounds), but larger than the 1911-20 average (5,034,307,260 pounds). Foreign imports supplied 55.7 per cent. of the consumption in 1921, 62.7 per cent. in 1920, and 52 per cent. in 1919.

Exports during the year totalled 789,263,707 pounds, a decrease of 45 per cent. compared with 1920, but a small increase over the average for the 1911-20 period (701,483,015 pounds).

THE present sugar refining capacity of Canada is stated to be 700,000 tons per annum, while the consumption of refined sugar in the Dominion is a very little over 300,000 tons.

GUIANA'S COLONISATION.

Lecture by Hon. Cecil Clementi.

The Hon. Cecil Clementi, C.M.G., Colonial Secretary of British Guiana, read an interesting paper on the subject of "Colonisation in British Guiana" at a meeting of the Royal Colonial Institute last Tuesday, May 23rd, in the course of which he said that the earliest extant record of any settlement in the area comprised by our South American Colony occurred in minutes of the Zealand Chamber of the Dutch West India Company in 1626, this occupation being in the nature of a post for trading with the aborigines, chiefly in annatto dye. In spite of Sir Walter Raleigh's dreams, there never was within this region any native township whatsoever, nor even any large village. At the census of 1921, the aborigines were enumerated to be 9,150 souls, and it is doubtful whether they ever much exceeded that number, so that practically, when the Dutch first settled in the Essequibo and Berbice rivers, Guiana was an empty land. With the help of slave labour, agriculture was begun, and in 1664 the first sugar-mill was established at Brouwershoek. About 1750 the Essequibo and Demerara rivers, which had hitherto been jealously reserved for Dutchmen, were thrown open to all nations, and Englishmen rapidly availed themselves of the privilege, a fair number of settlers being attracted from Barbados, Antigua, and other West Indian islands. By 1760, according to Gravesande, Englishmen were in a majority in Demerara—a fact to which the subsequent cession of the Colony to the British Crown must, no doubt, be mainly attributed.

Last year's census revealed the distressing fact that the Colony's total population numbered only 297,691 souls—less by 41,472 than the number of immigrants introduced since 1831! Mr. Clementi considers that the causes of this disastrous record originated in "the migration to the coast," begun in Dutch days. As a second reason for the failure of colonisation, the lecturer assigned the anomalous Constitution under which the Colony is governed—"a Constitution unique in the British Empire, and the creature of pure mischance." He continued: "It is open to doubt whether . . . the abolition of the College of Kiezers has not been a disadvantage. For, when sugar was king, the Combined Court did at least continuously pursue a policy which (it was hoped) would benefit the sugar industry. But since the reforms of 1891, it is questionable whether any definite policy whatever has been consistently pursued by the Combined Court."

As for the future, Mr. Clementi regards it as essential that a Government should be set up which can really govern, and from which the power of the purse is not withheld. "The Colony is as yet unripe for any form of dominion self-government," and there should be an official, not an unofficial, majority in the Colony's body politic. Given this and the necessary funds, the best plan would be to organise a sound scheme of free emigration from India. The prime requisite in such a scheme was

the establishment of cheap, regular and direct lines of communication between India and British Guiana. The tide of migration once set flowing, both countries benefited.

He must not be misinterpreted as advocating abandonment of the coastal estates, which were the most important tangible assets that the Colony possessed to-day. But the experience of a hundred years proved that we could not hope to get a natural increment from a population settled entirely on the coast, and that, therefore, a determined attempt should now be made to establish centres of population, well above sea-level, at the most suitable places in the interior of the Colony, and to make those centres easily accessible. Eight years' service in British Guiana had convinced him that the Colony held wonderful potentialities. It was capable of producing all the sugar that this country could consume. It should supply the British West Indies with their rice and beef. It should furnish the Empire with quantities of valuable hardwood. It should be the source from which we obtained our chief supplies of alumina and abrasives. It might well be found capable of yielding a large output of gold and diamonds. It should be both the tropical garden of the great northern Dominion of Canada, and also a land of promise for East Indians who found the struggle for existence too hard in their native country. If these aspirations were fulfilled, any investment in British Guiana of the capital and of the man-power available within the British Empire would be richly repaid.

BYGONE BUDGETS AND SUGAR.

Recalling former Budgets, the *Manchester Guardian* of March 29th reminds its readers that the history of the sugar duties provides a whole series of political and Parliamentary crises, partly because, for a long period, it was more or less associated with the fierce struggle over the slave trade. Thus in the "electioneering" Budget of 1841 the Whigs suggested a reduction in the duties on foreign sugar, and Parliament was at once aflame. Abolitionists and West Indian planters were for once of one mind, for a reduction on slave-grown sugar from foreign countries was equally obnoxious to both classes, and between them they could wield great influence. In the debate, remarkable speeches were made by Gladstone, who included his famous reference to the fact that a son of Zachary Macaulay was associated with the scheme, and by Macaulay, who made a fiery reply. In the end Ministers were beaten by 36. Peel came in, and in 1844 his Government was involved in another sugar crisis. Again, in Gladstone's famous period as Chancellor he found that sugar could always raise difficulties in a Budget. And one ought perhaps to include the famous scene in the House when members were shouting with laughter over the constant recurrence of the word "sugar" in a Ministerial statement. The laughter persisted till the elder Pitt rose majestic, surveyed the House, and exclaimed: "Sugar, Mr. Speaker. I say sugar. Who laughs now?"

VANILLA.

Its Cultivation and Refining.

The following description of the methods of cultivation and curing of vanilla is taken from the *Tea and Coffee Trade Journal* :—

Vanilla plant culture requires a tropical climate, hot and moist, with frequent but not excessive rains. The fertilisation of the flowers is accomplished naturally by bees and humming birds in Mexico only. It is curious that in any other part of the world the bees rarely visit the flowers, and if they do they do not fertilise them.

In these other countries, therefore, it is necessary to fertilise the vanilla blossoms by hand. The operation is somewhat delicate, but is soon learned successfully by the natives. Usually the flowers remain open for one day only, and for this reason a large number of persons, usually women and children, are required for the work in the flowering season.

The best time to fertilise the flowers is between eight o'clock in the morning and noon. Fertilisation is most successful on a clear day that has been preceded by a rain. The flowers open up one by one on the stalk, but sometimes more than one are open at the same time. The average worker uses a small-pointed stick the same size and shape as an ordinary toothpick. A number of these are carried by the operative, and with them he transfers the pollen to the stigma of the flower. An average worker can fertilise 2,000 flowers a day if the vines should have been planted fairly close together.

Nature does not always produce the best beans in any particular part of a vanilla district; nor may it be said that an estate yielding a well-developed crop one year will yield the same the next season. The collectors and curers of the reputedly best beans do not always grow them on their own estates, but contract for and buy up the best crops from various parts of one or more districts and subject these to the same method of preparation, in which they have become expert.

There are numerous methods adopted for the artificial preparing or curing of the vanilla pods. They are sometimes cured by the "hot-water" method or by the "stove-heat" method, but generally by "sun treatment." Subjected to any one of these, they are rapidly ripened uniformly throughout the pod.

The writer has never seen vanilla treated by the stove-heat method, but it is understood that in cloudy and rainy weather the vanilla pods are cured in brick ovens having either brick or cement floors and exposed to a heat of 60 deg. C. (140 deg. F.), instead of being exposed to the sun. After an exposure of six or eight hours to this heat they are subjected to the same treatment as that utilised in sun-curing the pods.

Many of the smaller curers employ the hot-water method of preparation. This consists in placing the green beans of various sizes into baskets and dipping them into water heated to about 90 deg. C. for five seconds, withdrawing from the hot water, and after short intervals repeating the operation three or four times. An alternative method is sometimes used, in which the basket is lowered into the water

for 20 or 25 seconds, after which the beans are wrapped up in matting and permitted to "sweat." This method saves a great deal of weight in the finished beans, and is therefore one of the methods of sophistication.

Sun-curing is the method most generally employed. The first operation is to "tease" or "needle" the pods. This is done by making four to six longitudinal scratches from end to end on the outer surface of the green pod. The puncture must be deep enough to break through the outer skin and thus permit the ready escape of moisture during the sweating process. It is an advantageous operation, as it aids in curing the bean uniformly, in that there is a free access of air within and without the bean at the same time. It also prevents broad fissuring of the beans when they are heated in the sun preparatory to the sweating process.

The second operation is to spread woollen blankets upon floors or terraces built of brick or cement in the middle of the forenoon and spreading 40 or 50 pounds of the green pods upon these. After four or five hours, the blankets are wrapped about the pods, folded tightly and bound. The bottom of the blanket is now reversed and exposed to the sun for another two or three hours, and then the bundle of beans is placed into tin- or metal-lined wooden boxes holding between 600 and 1,000 pounds of the pods at a time, and so built as not to permit the escape of heat during the 48 hours of sweating.

The sunning and sweating operation is repeated not less than ten times. This, however, depends entirely on the season of the year and the condition of the green bean. The operation, it should be remembered, must be repeated until after each successive sweating the damp blanket when removed shows less and less moisture, or until the pods stiffen considerably, indicating that most of the aqueous moisture has been eliminated and that the beans are now emitting their natural fixed oil.

After each sweating treatment the wet blankets are put out to dry, and the beans exposed to the sun on dry blankets. After the first sweating of 48 hours it is customary to subject the pods to sweat for only 24 hours at a time before re-exposure to the sunning. In curing the Guadeloupe or South American vanillas, fibre matting is used more generally than woollen blankets, and it seems to answer the purpose well.

In his lecture delivered before the Institute of Jamaica in March, on Rural Jamaica, Mr. Robert Stafford Biscoe said that at the present time, in that Colony, the evolution of the permanent peasant dwelling was :—

- 1st year.—Building foundations if of stone.
- 2nd „ —Uprights and roof.
- 3rd „ —Floor boards and partitions.
- 4th „ —Wattling one room and fixing door.
- 5th „ —Plastering same.

and in the meantime the family lives in a hovel.

"This sort of living," Mr. Biscoe goes on to say, "will not suit us at all. We want quick houses and good ones, and the societies (local agricultural) must do all they can to produce them."

ANÆMIA IN PORTO RICO.

The Only Effective Treatment.

By R. B. HILL, B.S., M.D., *International Health Board, Rockefeller Foundation.*

THE WEST INDIA COMMITTEE CIRCULAR is indebted to the *Agricultural Extension Notes* published by the *Porto Rico Experimental Station at Mayaguez* for this valuable treatise on anæmia.

Ankylostomiasis, variously called uncinariasis, hookworm, or anæmia, has been so long known in Porto Rico that it would seem trite to discuss it were it not for the fact that some aspects of the problem are not clearly understood by many people of the island, or if understood, are not acted upon, which is not probable.

For centuries travellers and inhabitants had noticed the peculiar pallor of the *jíbaro*, and had ascribed it to the poor quality of the food he eats. When the hurricane of 1898 made thousands destitute, the United States Army at once rushed food and supplies to the stricken people. Lieutenant Bailey K. Ashford noticed that they did not improve with good food, and soon discovered that the anæmia was due to a small parasitic worm, allied to the common earthworm, which lived in the intestines and sucked the blood of the victim, at the same time injecting a poison which further disabled him. Up to that time the importance of the parasite had not been generally recognised.

The Porto Rico Anæmia Commission, composed of Drs. Ashford, King, and Gutiérrez, was formed, and found almost 100 per cent. of the rural population of the island afflicted with the disease. In the years from 1903 to 1911 they and their successors gave almost half a million treatments, estimating that they had treated over one-third of the population of the island. Since that time the Department of Sanitation has been treating several thousand people every year. The importance of this early work can hardly be over-estimated. Whereas 11,000 people died of anæmia in 1900, only 1,100 died in 1919. Yet in spite of this, a survey of the island conducted by the Rockefeller Foundation in 1919 revealed that almost 90 per cent. of the people still suffer from the disease. What is the reason for this continued prevalence of anæmia, and what is the outlook for the future?

To begin with, we must note a change in the severity of the average case. In 1899 the usual case seen was a weak, sickly person, unable to work, often swollen with œdema, under-developed, under-nourished, with perverted appetite, apparent heart trouble, and the pallid, pasty complexion that has given the common name to the disease in Porto Rico. At the present time this severe case is not very common; instead we have a person who may be only slightly pale, who tires rather easily, suffers from dizzy spells, with dyspepsia, palpitation and headache, and who may feel "run down." The inability to do a good day's work may make one think that he is lazy. Indeed, in the Southern States, hookworm and laziness are synonymous. Very important, too, is the "carrier," a person

who has none of the symptoms of anæmia, but who, on examination, is found to carry a few worms, and is as dangerous to his fellow-citizens in spreading the disease as the severe case. The rôle of the carrier in uncinariasis should be as well recognised as it is in typhoid or diphtheria.

It has long been proved that hookworm is contracted ordinarily through the skin, usually of the foot by direct contact with earth infected with the young worms. It is not true, as commonly supposed, that infection by drinking impure water is usual. How do these young worms, or larvæ, come to be in the soil? They reach there only in one way: by pollution of the soil with the excreta of a person who has these worms in his intestines. Just as is the case with many other classes of parasites, this worm follows a definite life cycle, the breaking of which at any point will cause the eradication of the parasite, and hence the elimination of the disease. Let us briefly review this life history.

Starting from the adult worm in the human intestine—it lives only in the human being, although there are closely allied forms in the domestic animals—we find that the female worm, measuring a scant half-inch in length, can and does lay about 500 eggs per day. An average infestation with, say, 100 females and 25 males would thus produce 50,000 eggs daily. If we could only breed poultry to do as well! Fortunately for us these eggs do not hatch in the intestine, but pass out with the dejecta, where under favourable conditions they hatch in about twenty-four hours into the small larvæ, which grow in four days to one-thirtieth of an inch in length, and are thus barely visible in the best light. They are now ready after this short period to enter a human being. With proper moisture and warmth they can live for some months in this state, ready at any time to attack the luckless individual who passes, entering through the pores of the skin where it comes in contact with the infected soil. This piercing of the skin by the minute worm produces the intense itching and infection which everyone in Porto Rico calls *mazamorra*. The worms make their way into the blood stream and travel to the intestine, where in seven weeks they have grown to adults and are producing eggs. Thus it is seen that the larvæ must live at least four days outside the body before they can infect a person; and that soon after the fourth day they must have access to a human being or they die. They die rapidly unless they have proper shade and moisture. It is notorious that most *mazamorra* occurs during the rainy season.

Two methods of attack thus present themselves. (1) We can expel all the worms of all the people of the island. But one would needs be a St. Patrick to drive them all out at the same time, so that there remain none to again spread the disease. It is impossible. The Government has been treating anæmia for twenty years, and it is still almost universal. (2) We can so dispose of the excreta that there will be no chance of infection with the larvæ. This is the present method of attack. In practice we combine the two, treating the people as fast as possible, but we consider it far more important that everyone, rich or poor, old or young, labourer or employer, shall recognise the dangers inherent in

soil pollution; that they shall labour with us to prevent it by placing a latrine at each and every rural home, and so placing latrines in the *fincas* that they will be readily accessible to the *peones*, who must be encouraged to use them at all times, and thus confine the larvæ and prevent infection. As an accessory factor it is desirable to wear shoes, but this would not be necessary if the soil were not polluted with human excreta. The wearing of shoes will usually prevent infection, but this is only a makeshift. The use of latrines strikes at the root of the evil. Furthermore, the use of the latrines helps to rid us of other intestinal diseases, such as typhoid, dysentery, and diarrhoea, and is a definite sanitary advance. It paves the way for further advances for the people; it is progress.

We thus see that the disease has continued all these years because people have continued to infect the soil; they have not built and used latrines as they should have done. Over 80 per cent. of the homes of Porto Rico have no sanitary convenience whatever. As long as this condition obtains, hook-worm disease will flourish in spite of all efforts to eradicate it. Experience has shown that anæmia declines as sanitation advances. The Government of Porto Rico is spending \$30,000 every year in combating anæmia, while the Rockefeller Foundation has also entered upon a five-year programme in co-operation with the Government, but these agencies will accomplish little without the understanding and help of the people of Porto Rico.

DYESTUFFS AND DISEASE.

Successful Experiment with Filariasis.

It is a property of certain dyestuffs, even in high dilution, to kill speedily the protozoa or parasites in syphilis, filariasis and similar diseases. Such is the claim advanced by Dr. Albert Renshaw and Mr. T. H. Fairbrother in a joint paper on "The Relation between Chemical Constitution and Antiseptic Action in the Coal-tar Dyes," which was read before a meeting of the Society of Chemical Industry on March 30th.

Dealing with filariasis, an interesting experiment was quoted. The authors wished to test certain dyes on the worms present in the blood of a patient suffering from this tropical disease. They were put in touch with two cases, who presented themselves for examination. The blood of the first patient examined was found to contain the tiny moving worms present in this condition. A solution of a dye was made and mixed with the patient's blood until a dilution of one in 4,000 resulted. The blood being again examined, the filaria were seen to be still moving, but within five minutes of mixing the dye with the blood they became dead. The whole experiment had taken up but 15 minutes to complete, and within this time the patient had the satisfaction of knowing that at least one substance existed which had a lethal action on his parasites. It is believed that this drug may possibly be administered intravenously.

SAVING THE BABIES.

Valuable Work in St. Kitts.

The first Report of the Baby-Saving League of St. Kitts, which was founded on the 29th January, 1921 by Mrs. J. A. Burdon, shows that much valuable work has been already done by that organisation. For the purpose of carrying out the objects of the League efficiently, the island has been divided into three districts, those of Basseterre, Sandy Point, and Cayon, and the Committee is confident that as a result of the work of the League, the rate of infantile mortality has already been appreciably reduced, though statistics are not yet available. It is believed that the eyes of the community have indeed already been opened by the crusade which has been carried on by a band of capable and willing workers. Crèches have been established, and advice is given to mothers. As an indication as to how greatly this is needed, it may be mentioned that many parents refrain from sending their infants to these crèches because they are given milk instead of solid food! Only time will wear down this prejudice.



A Prize Baby.

Mrs. J. A. Burdon, founder of the St. Kitts Baby Saving League, holding the baby which won the first prize at the Baby Show at Basseterre.

The funds of the League are made up by donations, subscriptions, and a Government

grant of £200, and the financial statement shows that during the nine months under review, £729 was received from these sources, and that there remained a balance of £548 in hand on October 31st.

It is unnecessary to say that Mrs. Burdon, who is shown on this page with a negro baby which won the first prize at the Baby Show organised by the League, will be glad to hear from philanthropists interested in this movement. The Chairman of the Central Committee is Dr. C. R. Durrant, C.M.O., the Hon. Treasurer, Miss Majendie, the Hon. Secretary, Mr. D. H. Semper, and the members of the Committee, Mrs. J. A. Burdon, Mr. J. R. Yearwood, Mrs. Ross, Mr. C. W. Greenidge, and Miss Thibon.

The CIRCULAR would be glad to receive reports of the work of the other Baby-Saving Leagues as they are published.

THE total sugar production of the British West Indies, including British Guiana, for 1921-22 is estimated by Messrs. Willett and Gray at 235,500 tons.

JOTTINGS FROM MY NOTEBOOK.

The production of tea in India last year amounted to 345,205,000 lbs., from an area of 643,000 acres. In addition, there were 53,800 acres unpicked.

* * *

Vitamine, water-soluble B, has been discovered in the leaves of the tea plant by Dr. Shepard, of the University of Minnesota. Black and green teas were employed in the experiment, and the vitamine appears to have passed through the fermenting and firing stages undamaged.

* * *

Messrs. Lyon and Wilson have ascertained from experiments with plants grown in flasks containing sterile nutrient solutions, that after a time these invariably contained organic nitrogen, although none was present to begin with. The plants experimented with were maize, oats, peas, and vetch.

* * *

Facts about Sugar states that by intensive cultivation the staff of the Experiment Station of the Honolulu Planters' Association have succeeded in obtaining a yield of 15.85 tons (short?) of sugar to the acre from a seventeen-acre field, the yield of canes being 118 tons to the acre. The cane grown appears to have been H.109.

* * *

Various products are obtainable from the pineapple. The peel, when macerated in water, yields an astringent product which, when fermented with sugar, furnishes a drink which is efficient as a diuretic or vermifuge, while the crushed leaves give a juice which can be used for bleaching plant fibres, such as hemp and flax.

* * *

The authorities of the Audubon Sugar School in Louisiana have gone into the subject of sugar beet growing in Louisiana. The conclusions arrived at are that sugar beets can be grown there successfully, the tonnage per acre being heavier than the average elsewhere, and that, although the sugar content is not high, it is high enough for commercial purposes, while the cost of cultivation is low.

* * *

Experimenting with refinery liquors, V. Skola found that when these were passed through cakes of decolorising carbon in the frames of a filter press, washing only removed 0.4 per cent. of the mineral matter absorbed by the carbon during filtration, and that calcium salts were absorbed by the carbon to a much greater extent than potassium or sodium salts. The latter salts were easily washed out of the cake, but the lime salts were held.

* * *

The year 1920 was a record one in the diamond industry of South Africa, the estimated value of the diamonds from all sources being £14,762,890. Of this amount, £12,289,602 came from mines, £2,441,440 from alluvial washing, and £81,867 from debris washing. As regards the distribution of the industry, 1,364,706 carats came from the Kimberley district, 905,297 carats from the Transvaal, and 275,914 carats from the Orange Free State.

Messrs. Ayres and Mudge, associated with the Dairy Division of the United States Department of Agriculture have recently isolated two streptococci from a commercial butter "starter." One of these belonged to the *Streptococcus lacticus* group, and the other corresponded to the *S. kefir* type. The former, in pure culture, produced but little volatile acid in milk, although the total acidity was high. The latter, however, in the presence of the former, caused production of volatile acids in considerable quantities. The characteristic acidity and flavour of the original starter were reproduced when the two organisms were combined in one culture.

* * *

The influence on soil and crops of the use of green manures at different stages of growth has been made the subject of investigation by L. C. Martin, who publishes his results in *Bulletin* 406 of the Cornell University Agricultural Experiment Station. The plants used for the green manuring were rye, oats, and buckwheat, and the conclusion arrived at, judged from the rapidity of humus formation, the accumulation of nitrates, and the increased availability of the plant nutrients, was that the greatest benefit was derived from the use of green manures at the half-grown stage.

* * *

In an article on "Liming as a means of Soil Amendment" in the *West Indian Bulletin* (Vol. xix., No. 2), Mr. F. Hardy, the Chemist of the Imperial Department of Agriculture, comes to the conclusion from the numerous data that exist on the subject, that soil acidity is not, *per se*, always an objectionable condition which invariably requires an application of lime for its correction. There is much need, Mr. Hardy goes on to say, for further investigation on the subject, for liming should in future be looked upon as an exact operation to be performed only when accurate information regarding the significance of the various factors that might be involved in its employment has been accumulated for the particular soil and particular crop.

* * *

There are large areas of wild fibre plants in Colombia, which, according to the United States Consul at Baranquilla, have been hitherto of little value. Recent experiments, however, have resulted in the perfection of a machine that will reduce to fibre the leaves of plants of the wild pineapple family, from which are produced some of the finest vegetable fibres known—*Bromelia Sylvestris* and *Bromelia Pinuela*. The fibre from the former is divisible into one ten-thousandth of an inch. It has as much tensile strength as flax; it fully as well resists the action of water, and it takes dye perfectly and with a good gloss. The Indians used it for fish-nets, and their mummies were wrapped in it, some of the latter recently discovered and opened showing the fibre in a good state of preservation. *Bromelia Pinuela* has also been long recognised as a valuable plant fibre, and large sums have been spent in efforts to perfect means for its mechanical reduction. Owing to its greater and more accessible supply in Colombia, this will be the first fibre produced in commercial quantities.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 221.)

In spite of its many shortcomings, the enumeration of which, one found, did not in the least offend the inhabitants, Kingston is not without its attraction to the visitor. It has several very pleasant ones, such as the Jamaica Club, of boundless hospitality, standing in a walled garden at the top of a short flight of steps in Hanover Street, and the Myrtle Bank Hotel, with a delightful lawn studded with coco-nut palms, running down to the water's edge, where local society mingles with American tourists on Saturday nights and dances to the inspiring music of the band of the West India Regiment. These musicians, now attired in the khaki uniform which they wore on active service, will soon be donning once more the picturesque Zouave uniform, with its full blue knickerbockers, white gaiters, scarlet sleeveless tunic, and tasselled turban, which owes its origin to a fancy of Queen Victoria. Seeing some French Turcos so attired, the Queen asked why we should not have some Turcos too, and so orders were given that Zouave uniforms should be served out to the West India Regiment, which has worn them ever since.

One has to admit that the best hotels in Jamaica are those under American management. They are also the most expensive, and this so impressed itself upon Sir Richard Stapley, a wealthy merchant, who was visiting Jamaica for the benefit of his health in company with Dr. R. J. Campbell, that he there and then purchased the deserted Constant Spring Hotel, which had been closed since the early days of the war, and threw it open to visitors—all within a space of three weeks. Sending in to Kingston for the largest Union Jack procurable, he triumphantly flew it over the hotel to show that there was still such a thing as British enterprise. This public-spirited visitor had in his mind the possibility of using the building eventually as a kind of technical institute; but the proposal did not meet with much support. To the regret of all who had met

him, Sir Richard Stapley died at sea on his way to England.

Another hotel of the first order in Kingston is that dedicated to the South Camp Road, in which it stands. It was there that I first heard the correct rendering of a song which was being whistled, sung and played all over the town. The occasion was a dinner given by the officers of the British West Indies Regiment. The genial Major E. G. Ogle was in the chair, and was supported by Colonel Pinnock, Lieut.-Colonel Pomeroy, Major C. S. Sanguinetti, Mr. "Sam" Burke, Kingston's exceedingly popular polo-playing magistrate, and other veterans. Speeches were followed by an impromptu concert, in the course of which the song in question was first lustily sung by the junior officers present, and then taken up by us all. Its name was "Hop-Off Contingent"; its words, of which the precise meaning and significance have yet to be discovered, run:—

Tempo di Marcia.

Hop off of you contingent, Hop off of you, every thing you
ask contingent give un-to you. If I should ask for a
new pair of shoes all I want is a hop off of you.

The "B.W.I.'s" Marching Song.

It made an effective marching song.

Jamaica contributed by far the largest number of men of any of the West Indian Colonies to the British West Indies Regiment, whose official birthday was October 26th, 1915, when it was announced that the King had been graciously pleased to approve of the formation of a corps from the contingents of the inhabitants of the West India islands under that name. Out of a total of 15,501 men who served in the B.W.I.'s, as they were called, no fewer than 10,380 were Jamaicans, and one cannot say too much in praise of those gallant fellows who volunteered for active service and crossed upwards of four thousand miles of ocean to face dangers from an unknown foe in a climate to which they were totally unaccustomed, setting, incident-

"Hop off of you
Contingent,
Hop off of you,
Everything you ask
Contingent,
Give unto you,
If I should ask for a
new pair of shoes
All I want is a hop
off of you, Contingent
Hop off . . ."

—and so on, *du capo*, over and over again. This remarkable song, which had put "Jonah in de belly of de whale," and other old favourites, completely into the shade, was evolved by the men of the Jamaican contingents whilst they were in camp awaiting the transports which were to take them to the front.

ally, an example to many a young man who was content to follow the war from the secure retreat of a West Indian estate or office, and grumbled if its exigencies interfered with his trade.

In his book, "Roaming through the West Indies*," that breezy American traveller, Mr. Harry A. Franck, gives publicity to what are worse than disparaging remarks about the B.W.I.'s. Says he :—

"Official reports credit the 'B.W.I.' Regiments with 'excelling in many acts of bravery'; private information, even from some of the very men who dictated the official reports, has a different tenor. According to this they were useless in actual warfare, not a man of them having died facing the enemy. Even as labour battalions they were not worth their keep, and their conduct was such that both the French and the Italians protested against their being stationed within reach of the civil population."

Had he been present at the dinner at the South Camp Road Hotel, and had he there ventured to make this unwarrantable assertion, he would have returned to his lodging a sad but wiser man. The officers present would have told him of the courage of their men in the face of the enemy, of their steadiness under fire; how, on the Western front, they humped three tons of shells where the English Tommy humped one, and how their gallant bayonet charge in Palestine won the admiration of the Colonial troops. To this both Lord Haig and Lord Allenby have lent the weight of their testimony and to suggest that such eminent British officers would "cook" their reports to serve political ends is, to say the least of it, ridiculous.

But if Mr. Franck is unwilling to take the word of a British officer, let him read what Mr. W. T. Massey, *The Times* correspondent with the Egyptian Expeditionary Force, wrote :—

"I have just returned from witnessing our mounted men's triumphant capture of Amman. . . . The Anzac Mounted Division east of the Jordan were assisted by some infantry, including a battalion of British West Indians, whose gallant bayonet charge on the banks of the Jordan won the admiration of the colonial veterans."

Before me lies a letter from Brigadier-General E. W. Chaytor, which Mr. Franck and his informants would do well to digest also. That distinguished officer, now Commandant of the New Zealand Defence Force, was in command of the Australian and New Zealand Mounted Divisions, under whom the 1st and 2nd Battalions of the British West Indies Regiment served throughout the operations in the Jordan Valley. He writes :—

"Statements to the effect that the British West Indies Regiment was useless, that it did not distinguish itself in the advance to Amman, and that the favourable reports about the Regiment published in General Orders were untrue, and were only prompted for diplomatic reasons, are absolutely false, and I

assure you that all I said of the B.W.I.'s, either in my reports or when speaking to them at Ram Allah on 25th November, 1918, was true, and was prompted by no other motive than my appreciation of their work and of the great assistance they had given to me and my division during a difficult operation.

"Previous to the two British West Indies Battalions coming under my command in the Jordan Valley, I had not met them, nor have I ever been in the West Indies or had any interest there; consequently I could have had no reason to favour them, and it must be obvious that neither the G.O.C. N.Z.M.R. Brigade nor I was likely to award an undue share of the credit for the success of the operations to an attached unit. Further, no one ever tried to influence me as to what I should say in my reports on the B.W.I.'s or on any other unit. Those for the period when the B.W.I.'s were under my command were rendered direct to G.H.Q., and Lord Allenby is the last man to allow, still less to instruct, a subordinate to give praise which he considered was not deserved.

"My knowledge of the work done by the B.W.I.'s was derived from reports by the G.O.C. New Zealand Mounted Rifles Brigade, and from officers on my staff, and also from personal observation of their work in the line, of much of their fighting on the 19th, 20th, and 21st September, and of the condition of the 1st Battalion when it arrived at Amman, and its work there.

"Since my reports were written, I have frequently heard officers and men of the N.Z.M.R. Brigade, who had fought alongside the B.W.I.'s, speak of them, and all, without exception, have expressed appreciation of the 'Westies' and of the help they gave to the Brigade."

(To be continued.)

A MEMBER of The West India Committee, resident in Cuba, writes :—

"You are no doubt aware that the Cuban sugar crop for this year is to be very much under the two previous years. And that the enormous fires that have occurred during this grinding season, and also with the unprecedented drought Cuba has been suffering from during the last five months, sugar people need not trouble their heads about curtailing the sugar crop during the coming season. Next season's crop will be very much smaller than whatever the present crop may be."

In the course of a paper recently read before the Section of Tropical Diseases at the Royal Society of Medicine, Dr. John Anderson showed that true dysentery accounted for about 5 per cent., whilst other intestinal diseases, including enteric fever, diarrhoea, and enteritis, were responsible for over 20 per cent. of the total deaths in the West Indies. For want of sufficient laboratory facilities the differential diagnosis of intestinal disorders is necessarily open to much inaccuracy, being based chiefly on clinical grounds or the degree of response to emetine treatment. Amoebic dysentery is, apparently, more prevalent than the bacillary form, and, owing to inexact methods of diagnosis and unsatisfactory treatment, is attended by a high death-rate.

* "Roaming through the West Indies." By Harry A. Franck (T. Fisher Unwin).

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Hotel Schemes for the Bahamas.

A message has been received from the Florida East Coast Hotel Co. stating that that corporation is not in a position to consider reconstruction of the Hotel Colonial, but proposes to continue operating the Royal Victoria and the steamship service from Miami, and would consider leasing and operating a tourist hotel constructed by the Government.

Miss Moseley, M.B.E., writing on May 9th, states that on the previous day the House of Assembly approved the erection in Bay Street of a fireproof hotel consisting of at least 300 guest-rooms, provided that it can be ready for operation by 31st December, 1922, the cost not to exceed approximately £270,000. There should also be a second new hotel by next winter, as the Government are guaranteeing a sum not exceeding \$750,000 to the Foundation Company for the purpose of building a fireproof hotel opposite Fort Montagu—the finest site in the island. Thus, in spite of the destruction of the Hotel Colonial, there should be next winter more accommodation than ever for tourists.

Barbados Oil Wells' Yield.

A dry fortnight is recorded by the *Advocate* of April 25th, with, however, a few showers. The young crop all over the island is vigorous and healthy. Reaping operations are proceeding apace. On the St. Philip and Christ Church seaboard the tonnage of canes has been very low, being about 15 tons per acre; but in more favoured districts it has been from 20 to 35, and even 40 tons have been reached on some estates. A little muscovado of special quality is being made at the Belle for the London market. It is packed in hogsheads, the sight of which had become rare.—The British Union Oil Co. are putting down another well at Turner's Hall. The oil from the first well, which is flowing intermittently, is of a very high quality. A different kind of oil, very heavy and dark, is being obtained in small quantities at Canefield. Mr. Fleming, the manager of the Shell Company operating in Trinidad, is at present on a visit to the island. Mr. H. B. G. Austin has been elected President, and Mr. H. Jason Jones Vice-President of the Barbados Chamber of Commerce for the ensuing year. Mr. W. T. Edghill has been elected a member of the Council, in the place of Mr. J. Allan Jones, who has retired.—Mr. J. N. Marshall, Acting Sanitary Inspector, has been appointed Chief Inspector of Health for the Parish of St. Michael.—The obituary list includes the name of Dr. Edward St. John, brother of Mr. F. A. St. John, of Cane Garden, St. Lucy.

British Honduras Chicle Duty.

The export duty on chicle has been decreased by Ordinance No. 15 of 1922 from 3 to 1½ cents per lb. from April 22nd. A Bill has been introduced in the Legislative Council to provide for a loan for the improvement of Belize. In addition to the advance authorised by the Loan Ordinance of last year (No. 28), the Governor is empowered to raise \$50,000 to be appropriated to repairing, draining, and lighting the streets of the capital, principal and interest to be secured on the general revenue and assets of the colony.

Demerara's Diamond Development.

Mr. V. P. C. Fitzpatrick, writing on April 15th, states that the delegates from India left the colony on April 7th. Very little hope is entertained of any good accruing to the colony as a result of their visit. The Indian members of this delegation seemed to pay a very great deal of attention to trifling and in many cases frivolous complaints made by immigrants and others, while they appeared to pass over explanations and overlooked the numerous benefits the East Indian immigrants enjoy. It would almost seem that the only way for this colony to secure Indian immigrants would be to prohibit Indian Immigration! A Bill for the purpose of restricting rents is to be considered by the Court of Policy. The Government's proposals in this matter have been hailed with delight by all tenants, but some of the landlords view this question in a different light. In some instances it certainly does appear that the Government's proposals are somewhat unjust to the landlords, but on the whole there can be no doubt about the fact that this legislation is likely to produce a great deal of good, particularly in the case of tenements and small cottages.—Georgetown is filling up with diamond buyers coming from the four corners of the earth, and competition seems rather keen. Reports from the diamond fields are fairly satisfactory, and it is expected that the value of the diamonds exported from British Guiana during the year 1922 will be in the vicinity of \$2,000,000. The *Argosy* of the 13th April gives some particulars of the new regulations framed in connection with the diamond industry.

Mr. Churchill's cable published in the *Argosy* of the 8th inst. has caused quite a considerable amount of interest in various schemes of development, and this interest has been enhanced by the arrival of Viscount G. Dunsford, Lt.-Col. Evans, and Mr. G. O. Case, representing Messrs. J. O. Wild & Co., James Byron, Ltd., and Messrs. Bernhard Scholle & Co., who are said to be here to finance certain development schemes.—The new Sea Defence Bill came before the Court of Policy on the 7th inst., and has again been postponed.—The weather was hot and dry, and rain was badly needed. A large number of the negro cane-cutters have gone off to the diamond fields, and a shortage of this class of labour is complained of by estate managers. The East Indians have been rather unsettled by the visit of the Indian delegates, and several strikes have taken place, particularly in Berbice.

\$1,381,100 had been subscribed by April 12th to the Government's five million dollar loan.—Mr. Alfred Groves, formerly Superintendent of the Singer Sewing Machine Co. in the colony, has been appointed to the management of the local agency of Messrs. T. Geddes Grant, in succession to Mr. T. E. Guy.—Plantation Agatash (1,377 acres), on the left bank of the Essequibo River, is for sale.—Mr. J. van Sertima, Town Clerk of New Amsterdam, has been appointed a J.P. His son, Mr. Sydney van Sertima, was admitted to practice at the local Bar on April 8th. In introducing him, Hon. E. G. Woolford, K.C., referred to his brilliant academic career in England.

Mr. Solomon's Death in Dominica.

The *Dominica Guardian* announces that there will be no issue of this paper for the next four or five weeks, "as Mr. Steber does not feel it either prudent or safe to entrust his office to the staff at his present disposal."—The obituary list includes the names of Mr. A. W. Solomon and of Mrs. A. R. C. Lockhart, who was a daughter of the late Hon. G. L. Bellot. The

death of Mr. Solomon, Magistrate of District "E," and Registrar-General, took place under tragic circumstances. He and Mr. Peter Noble were driving in the latter's car between Roseau and Pointe Michel, on March 29th, when on a bad piece of road the car capsized, and Mr. Solomon was thrown out, breaking his neck. The deceased official held the appointment of Chairman of the Roseau Town Board from 1919 to 1921, performing his duties, in the words of the Acting Administrator's message of regret, "with marked diligence and ability, to the manifest appreciation of the Government and the people."

Jamaica Water Rights.

The West India Electric Co. have petitioned the Legislative Council against the Bill to control the ownership of water in the island for the purpose of irrigation. A similar measure which was introduced in 1920, and was unfavourably criticised by The West India Committee, was dropped.—*The Gleaner*, in its issue of May 1st, gives particulars of a new company, Suppliers, Ltd., with a capital of £20,000, the greater part of which has been supplied by Chinese traders, Mr. Tic Ten Que being chairman.—The death of Mr. R. H. Isaacs, J.P., Managing Commissioner of the Kingston General Commissioners, is recorded. A remarkable feat of memory is credited to Mr. Isaacs in connection with the earthquake of 1907, when he held the position of accountant to the Commissioners, whose books and accounts were all destroyed. Mr. Isaacs, however, opened all the ledgers from memory, recovering over £4,000 from water rates alone.—Replying to a deputation from the Kingston Improvement Association, who waited on him on April 28th with an influentially signed petition addressed to Mr. Churchill, the Governor stated that the Amalgamation Bill was to be proceeded with this session, the difference in principle in the Legislative Council being with regard to the constitution of the new body, some members wishing it to be partly nominated, others a wholly elected board.—Sir H. Mackintosh, the toffee manufacturer, who has been on a visit to the Island, states in an interview that he has found sugar there equal to any he had ever seen, and believes that if suitable arrangements were made to, English manufacturers should be able to develop a really extensive trade in Jamaica white sugar.—Over 350 Masons attended a gathering on April 29th on the occasion of the unveiling of a Masonic War Memorial by Sergeant-Major Bent, V.C.—The advent of the Canadian Pacific Steamship Service into Jamaica trade is having an excellent effect, and both the *Sicilian* and the *Montezuma* have been lifting large cargoes from Jamaica. Future bookings are even heavier, according to a report of the Direct West India Cable Co., and there is talk of a third ship being placed in the service. Experiments are also to be made by this line with cargoes of fruit, which, if successful, will open up an entirely new field to the Jamaica growers. The only "fly in the ointment" is the Dutch Standard proviso for sugar entering Canada from the West Indies, which prevents the shipping to the Dominion of any but the lowest quality sugars.—A determined move is being made to call the attention of the authorities to the desperate need for the improvement of Kingston, the dust nuisance becoming worse every month as the soft metal is disintegrated by modern heavy motor truck traffic and stirred up by the prevailing sea breezes.—The business carried on by Mr. E. Haughton Sanguinetti has been reorganised and

taken over by the firm of E. Haughton Sanguinetti, Ltd., the directors being several of the leading business men in the island, with Mr. Sanguinetti as Manager and Secretary.—Mr. Winfield, of the Maritime Telephone and Telegraph Co., of Nova Scotia, has been paying a visit to the island with the object of investigating the Jamaica telephone system and ascertaining whether or not opportunity offered to his Company to take over the business.—Mr. W. J. Walker has been provisionally appointed Managing Commissioner to the Kingston General Commissioners, with whom he has been associated for thirty years, in succession to the late Mr. Isaacs.

H.M.S. "Wistaria" off Tobago.

Mr. Robert S. Reid, writing on the 20th April, states that the Easter holidays have made things rather quiet on the estates, as few labourers return to work until 24th April. Some of them are cleaning up their provision gardens to prepare for the planting season, but most of them are enjoying themselves at cricket and other sports. The Scarborough races were held on Easter Monday, and were patronised by the inhabitants from all quarters of the island, horses being greatly in favour and local races on beaches and public roads being of frequent occurrence throughout the year. A donkey race, the only harness being a rope tied round the animal's nose, and the rider sitting on the rump of the tail, is one of the merriest sights in the island. There was also a dance at Colony House, Scarborough, on the night of the races, and to this were invited the officers of H.M.S. *Wistaria*, of the Canadian Navy, which has been on a visit to the island.—There was an interesting meeting of the Tobago Planters' Association at Richmond Estate, including a field demonstration at which Messrs. Ulrich and Scheult, of the Department of Agriculture, assisted. There was a comparison of cacao samples, which the visitors admitted were equal to No. 1 Trinidad, and no doubt Tobago planters' cacao is shipped as such, all of the produce being marketed in Port of Spain.

Trinidad's Revenue and Expenditure.

The total revenue of the colony for the first month of this year amounted to £131,480, or £2,413 less than during the same period in 1921. Expenditure, on the other hand, during January, 1922, exceeded that of January in the previous year by £12,065, the amounts being £121,853 and £129,998.—In the interests of economy, a number of public works provided for in the estimates of 1922 have, says the *Trinidad Guardian*, been suspended, and only necessary repairs will be undertaken during the year.—An action brought in the Supreme Court by the Esmeralda Oil Co. against Major Rnst, claiming £7,000 for trespass on the Company's land at Montserrat, was decided in favour of the plaintiffs, who were awarded £25, the amount paid into Court.—The Governor and Lady Wilson left Trinidad on May 1st on a second visit to Tobago.—A step towards solving the problem of Port of Spain's water supply was taken on April 27th, when the Governor formally opened the Cocorite Pumping Station, which has been named after Mr. C. A. R. Farrel, late City Engineer. The cost of the works is roughly £85,000, but with one engine burning five gallons of oil per hour, the station has a capacity of 1,800,000 gallons of water in 24 hours.

JAMAICA GOVERNORS.

BY FRANK CUNDALL.

X.—Christopher, Duke of Albemarle.

Christopher, the second Duke of Albemarle, is one of the few Jamaica governors of whom lives have been published in book form. Written by Miss E. F. Ward, it was published in 1915.

Descended from the Moncks of Potherbridge, Devonshire, the son of the celebrated George Monck and Anne Clarges, the daughter of a farrier and widow of a milliner, he was born in an attic over a tailor's shop in the Strand, London, on August 14th, 1658; but he was early removed by his mother to Deptford, to the house of her brother, Dr. Clarges. She, soon afterwards, went with her husband to Dalkeith House, in Scotland, where Monck was in command, and later back to London, and St. James's. At the Restoration Monck became Duke of Albemarle, and his son took by courtesy his second title of Earl of Torrington. When but thirteen years of age he received a commission as captain in a regiment, was elected member of Parliament for Devonshire, and as such took part in the impeachment of Clarendon. Three years later he was married to Lady Elizabeth Cavendish (eldest daughter and favourite child of the Earl of Ogle, afterwards second Duke of Newcastle), who was born on February 22nd, 1654-5. The wedding took place on December 30th, 1669, while the Duke of Albemarle was then dying in one chamber and the Duchess dying in another.

The Lady Elizabeth was at that time depicted by Lely, with his usual flattery in the case of female sitters, with "a curious haunting kind of beauty—sleepy, slanting eyes and a tiny mouth, the whole surrounded with pretty chestnut curls."

The young Duke, who received his father's insignia of the garter at the hands of the King, of whom he was a boon companion, and from whom he also received many other honours and favours, was much pleased with his Duchess, and gave her twelve hundred a year for pin-money. This allowance was presumably in addition to the income she received from the rents of the manor of Grindon, which was part of her dower. She also held a patent as "Searcher" for the county of Kent, and derived fees from the customs collected thereby. She was further concerned in a lace trade, which brought her some hundreds of pounds yearly. "He ruended her by letting her have her own will," wrote a gossip of the day; and this spoiling was ill-suited to one of her highly-strung temperament. Owing to his great wealth, he being one of the richest men in the kingdom, they led a gay life, including gambling and all forms of sport, first at Albemarle House (Clarendon House, which he purchased), the memory of which lives in Albemarle Street, where a large retinue of servants was kept up, afterwards at historic Newhall (built by Henry VIII.), which he had inherited from his father, where he entertained the King, and also at Newcastle House, in Clerkenwell, lent to him by his father-in-law, the Duke of Newcastle.

In 1673 he was given the command of one of the eight new regiments raised for service against Holland, and he and his men served in Prince Rupert's flagship, the *Sovereign*.

Two years later, on coming of age, he took his seat in the House of Lords, at which he was constant in attendance.

In 1677 he welcomed the Prince of Orange to England, at Harwich.

In 1682, in which year Albemarle House had to be sold, on account of financial difficulties due to lavish hospitality, the extravagance of a spend-



Christopher, Duke of Albemarle.

thrift son of parsimonious parents—the health of the Duchess had grown more precarious, and she began to show symptoms of that mental trouble which recurred throughout the remainder of her long life.

In 1685 Albemarle commanded, with efficiency, the Devonshire militia in opposition to Monmouth, which service was ill requited by the appointment of Feversham over his head.

In 1686, to the wonder of friends and acquaintances, who thought that he, a privy councillor, till recently Lord Lieutenant of Devonshire, joint Lord Lieutenant of Essex and of Wiltshire, one of the Lords of Trade and Plantations, Captain of His Majesty's Life Guards, Chancellor of the University of Cambridge, and holder of other high offices, would be thrown away there—the Duke was ap-

pointed Governor of Jamaica; Sir Philip Howard, the governor-elect, having died in April before he could take up his appointment.

Albemarle obviously only accepted the post for what he could make out of it, and he made no haste to assume office, drawing half the salary the while. His numerous friends and kinsmen in Devonshire published "Reasons humbly offered to the Duke of Albemarle against his going Governor of Jamaica." Albemarle, however, who had already, in company with other "Gentlemen Adventurers," received large profits, to the extent of £40,000, from Phips's venture on the Spanish wreck off Hispaniola, thought that by going there he could improve his diminished fortunes. He was given full rights over the gold, silver and other mines in America, and he also received power to confer knighthood, of which, however, he did not avail himself. He further obtained the unusual permission to return to England without leave if he felt inclined to do so.

Two medals had been struck in honour of the adventure at the wreck; on the obverse of the one were the portraits of James and Mary, on that of the other Albemarle.

The Royal frigate *Assistance* (Lawrence Wright commanding) had been carefully prepared for the voyage, and temporary cabins built for the ladies. The Duke was empowered to carry with him five hundred tons of goods and one hundred servants; he also had the furniture for a chapel, books of homilies, and copies of the Thirty-nine Articles, one set for each church in the island. His chaplain was named Arwaker, and his secretary William Latton, but of neither is there record in the island. He was accompanied by Dr. Hans Sloane as his private physician, with special charge of the Duchess, and the botanical collection which Sloane formed while in Jamaica became the nucleus of the British Museum.

The *Assistance* left Spithead on September 12th, 1687, accompanied by two merchant ships and the Duke's own yacht, in the charge of Captain Monk, his natural son, carrying his provisions and servants. Once at sea he hoisted his flag on the main top-mast as vice-admiral. After touching at Barbados, where he gained news of the ventures at the "Wreck," sailing up the Leeward Islands, Albemarle arrived at Port Royal on December 20th; but he did not finally leave the ship till six days later, when he and the Duchess were entertained at the public expense for three days. When the Council proposed to the Assembly that steps should be taken for the fitting reception of this "great peer of the Realm," that body, with its not unaccustomed jealousy, gave an evasive answer, and Albemarle records that he was entertained by the Council.

He occupied his position less than a year, but he, unfitted as he was by temperament for such an office, although his experiences of colonial affairs in England should have stood him in good stead, succeeded in that period in doing a considerable amount of harm.

One of his earliest acts was to obtain the King's permission to reinstate Sir Henry Morgan in the Council. A greater part of his short governorship was taken up with disputes with Molesworth over

the King's share in the treasure from the wreck. He quarrelled with Bernard, the Chief Justice, Musgrave, the Attorney General, Bourden, the Assistant Judge, and Samuel Barry, a member of the Council, and with the Assembly generally, which he dissolved. But all the officials whom he dismissed were reinstated after his death. He also came in conflict with Stephen Lynch, who had come out as representative of Sir Robert Holmes, the Royal Commissioner for the suppression of piracy, and he tampered with the freedom of election.

He sided with the planters in their quarrels with the Royal African Company over the supply and price of slaves.

One of the Galapagos group of islands was named by Cox, the buccaneer, Albemarle, in his honour.

His first Assembly met in February, 1687-8, and sat till April, when he dissolved it.

One member on the election of Charles Penhalow said that there were too many merchants in the house already.

The Speaker of the Assembly, which met in July, 1688, was Elletson, Albemarle's protégé. Most of the members, the Council later asserted, were "illegally and violently chosen." The Acts which it passed had reference to the better government of slaves and their conversion to Christianity; for appointing an agent in England, for raising the value of pieces of eight from five shillings to six, and for raising a public revenue for the King.

On January 19th, 1687-88, occurred a forerunner of the fatal earthquake of four years later, "generally felt all over the island," but "no great harm done that I can hear," adds Albemarle.

At this time great hope was entertained by the Roman Catholics. In 1688 the Bishop of Panama, in rendering assistance in negotiating with the buccaneers for the exchange of prisoners, wrote, "I have information to give you, that the English are all become Roman Catholics, and that there is now a Catholic Church at Jamaica." As a matter of fact, it was an instruction to Albemarle that he should protect and encourage all Roman Catholics and in particular Dr. Churchill, appointed chief pastor of the Roman Catholics in Jamaica, who arrived a month later than the Duke. Churchill caused James de Castillo, who was later knighted by William III., and made Commissary General for supplying the Spanish West Indies with shares, to leave the island for a time. He reported to the Council that Castillo had procured a manifesto for the Archbishop of Cuba prejudicial to the royal prerogative of King James. Castillo was ordered into custody, but fled the country and his goods were seized.

(To be continued.)

WANT.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 8/6 for three lines and 1/- for each additional line.

WANTED.—Position in Sugar Factory; 44 years' war experience; holder of the (Royal Technical College, Glasgow) Diploma in Sugar Manufacture; also certificate from City and Guilds of London Institute. Have sound engineering experience.—Write R. O. W., care of THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, London, E.C.3.

WEST INDIES AT WESTMINSTER.

Citric Acid Imports.

Mr. Baldwin (President of the Board of Trade), replying to Mr. Hogge, on May 18th, stated that the amount of citric acid imported into this country between October 1st, 1921, and March 31st, 1922, was 122 cwts., valued at £1,618.

Mr. Wood's Report.

Mr. Wood informed Mr. Gideon Murray, on May 18th, that the Report was despatched to the West Indian Colonies "by last week's mail,"* with a request that its receipt should be acknowledged by telegraph. As soon as these replies had been received from the Governors concerned, immediate arrangements would be made for it to be laid on the Table of the House.

United Kingdom's Sugar Consumption.

Mr. Baldwin (President of the Board of Trade) informed Mr. Waterson on May 15th that the amount of sugar consumed per head of the population in the United Kingdom was estimated to have been 76.8 lbs. in the financial year 1919-20, and 54.7 lbs. in the financial year 1920-21. Comparable figures for 1918-19 were not available.

Rum Imported into India.

Earl Winterton (Under-Secretary of State for India) informed Mr. Robinson on May 11th that the quantity and value of rum imported into India during the year 1920-21 was as follows:—

Country from which consigned.	Galls.	£
United Kingdom	11,076	15,397
Straits Settlements (including Labuan).	4,314	467
Natal	5,500	1,586
Java	156,757	29,998
Other Countries	3,060	3,142
Total	180,767	50,510

The Governor of Jamaica.

Mr. Edward Wood informed Colonel Wedgwood on May 9th, with reference to the statements in the Press as to complaints regarding the action of the present Governor, that various matters arousing local discussion and controversy had been brought to his notice when he was in Jamaica, and these were dealt with in the report of his visit to the West Indies, which he hoped to lay upon the Table of the House at an early date. He hoped to send it out to the Colonies by the next mail. He might, however, say at once, that while in the Colony he saw and heard nothing which would justify the description of the situation then prevailing as strained. He would hesitate to go as far as to say that the matter was due to any extent to the policy of the Governor in settling people upon the land, although land settlement in Jamaica, as elsewhere, had been a matter of controversy.

The Sugar Preference "Undertaking."

Lieut.-Colonel James asked, on May 22nd, whether, seeing that on 29th January of this year the Under-Secretary of State for the Colonies had announced in Trinidad that the British Government had decided to make a trade agreement with the British West Indies, guaranteeing to them the existing rate of preference in the Customs duties of the United Kingdom for ten

(Continued at foot of next column.)

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

Alcohol for Soft Drinks.

Dear Sir,—With reference to the paragraph on alcohol in "Jottings from my Notebook," by "Agronomist," in your issue of April 27th, I have made enquiries and think that the statement he makes must be based on a misapprehension of the facts.

Alcohol is not used by the mineral water trade for beverage purposes at all, but is the only mechanical agent at present known for enabling that trade to prepare and incorporate in its sweetened beverages the various flavourings required. The trade would give a very handsome fee to anyone who could find any solvent which would not involve them in the payment of the present heavy duty to which they are liable.

The document on which "Agronomist's" statement is obviously based makes this quite clear, and it should have been stated. It further proceeds to say that 14 fluid ounces of spirituous essence are used in flavouring 6 gallons of finished beverage—that is to say, in 600 gallons or 96,000 fluid ounces of lemonade there are theoretically 150 ounces of alcohol. A considerable proportion, however, of this alcohol disappears by evaporation, so that probably the actual amount would be overstated at 96 ounces. In face of the fact that there is one ounce of alcohol to every 1,000 ounces of lemonade, it is absurd to drag in the question of whisky at all.

Yours, etc.,

INTERESTED.

May 9th, 1922.

[The Note to which "Interested" takes exception was based on the statement made recently by *The Mineral Water Trade Journal* that £241,220 was paid to the Government last year in respect of duty on alcohol contained in the essences used in flavouring sweetened non-alcoholic beverages in 1921. "Agronomist's" statement that this was equivalent to 600,000 bottles of whisky was not incorrect, as anyone who cares to make the necessary calculation will find. We are glad to have "Interested's" explanation as to the purpose for which this alcohol is used, but cannot help feeling that the trade is suffering no very great hardship if in 600 gallons of lemonade, for example, there are only 150 ounces of duty-paid alcohol. At the same time, we share the hope of our mineral water friends that the duty on spirits may be reduced, but there must be no differentiation in favour of alcohol for non-alcoholic drinks.—ED.]

(Concluded from foot of preceding column.)

years, he would say what steps His Majesty's Government proposed to take to redeem that pledge? Mr. Wood replied: "I was authorised to announce in the West Indies that His Majesty's Government would propose to Parliament the continuance of preference on existing lines to articles at present enjoying it for a period of ten years. It is the intention of His Majesty's Government to maintain this undertaking in any relevant financial legislation which it may be their duty to submit to Parliament, as long as they continue to enjoy His Majesty's confidence; and, as my right hon. Friend stated in reply to the hon. Member for Chelsea on the 23rd February, this legislation is, and must be, subject to Parliament's approval."

* Presumably per S.S. *Intabari*, which sailed on May 12th.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica from Avonmouth, in s.s. *Coronado*, May 8th:—

Mr. F. Carr	Mr. C. Duce	Mr. M. Matlon
Mr. C. K. Clarke	Dr. & Mrs. D. H.	Mr. J. B. Menzies
Miss A. V. Craig	McPhail & Son.	Mr. H. Worcester

Sailings to Jamaica, from Liverpool, in s.s. *Baranca*, May 9th:—

O.M. Sergt. F. Bazley	Mr. W. L. Coke Kerr	S.S.-Major W. Williams
S/O M. Sergt. G. Johnson	Mr. E. A. Morgan	

Sailings to Jamaica, from Avonmouth, in s.s. *Patna*, May 15th:—

S. Sergt. & Mrs. F. R. Cox & Son.	Mr. A. W. Farquharson	Mr. K. P. Galloway
	Miss M. Farquharson	Lieut. A. B. Rennie

Home arrivals from Jamaica, in R.M.S. *Camito*, Avonmouth, May 14th:—

Master J. Armstrong	Mr. & Mrs. F. Rounce	Rev. & Mrs. J. B. Randall & Son.
Mr. G. Acular	Miss N. Fleming	
Mr. & Mrs. N. Arose	Mr. & Mrs. C. E. Green	Mr. F. H. Robertson
Mr. N. A. Ballance	Mrs. L. R. Gibson	Mr. P. Kennard
Miss C. Barchons		Mr. & Mrs. G. P. Smith & Son
Mr. S. Bignia	Miss G. Guery	
Mr. T. Beck	Mr. N. Gamboa	Mr. J. Stahl
Mr. J. A. Carey	Mr. & Mrs. A. Inglis	Mr. E. H. Stummers
Miss E. W. Charley	Mr. & Mrs. E. D. Jones	Mr. & Mrs. L. Seibe
Mrs. I. M. Clark & Son	Mr. & Mrs. W. Kemp	Mr. & Mrs. E. Steynor
Mr. W. H. Charley	Mrs. W. E. M. Loughman & Son	Mr. R. Semuambo
Rev. F. K. Coaks	Mrs. M. Mills	Miss E. A. Thomas
Miss E. A. Coaks	Mr. & Mrs. A. A. Holmes & Son.	Mr. & Mrs. Tourman & Son
Mr. W. N. Colam	Mrs. M. Martin & Son.	
Mr. S. Cohen	Mr. & Mrs. A. E. Dewar	Miss E. A. Vickers
Mr. & Mrs. J. M. Dewar	Miss N. Negrett	Mr. & Mrs. F. Valenzuela
Miss G. M. Dewar	Mr. & Mrs. A. E. Dewar	Miss G. Valenzuela
Capt. R. Dick	Mrs. A. Phillips	Mr. & Mrs. M. Wray
Rev. & Mrs. L. Edge	Mrs. T. Robinson	Miss P. M. Whittaker
Mr. & Mrs. J. M. Edge	Mr. G. Roome	Miss A. Young
Mr. E. L. O. Fitzgerald & Son	Mr. & Mrs. C. H. Rostron & Son	

Home arrivals from Jamaica, in s.s. *Motagua*, Avonmouth, May 20th:—

Mr. H. C. Ewan	Mr. & Mrs. C. H. Howorth	Mr. H. B. Robb
Miss N. Bagnoli		Miss D. Slater
Mr. E. D. Clarke	Mr. & Mrs. W. A. R. McRae	Mr. & Mrs. H. C. Thompson
Mr. F. W. Fullick	Mr. G. E. Payne	
Captain & Mrs. B. H. Hodgson & Son		

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Intaba*, May 19th:—

Mr. Batson	Mr. & Miss Grannum	Rev. & Mrs. J. D. Rainforth
Mr. & Mrs. Brasher	Mrs. Hampton & child	
Miss Bovell	Miss Haviland	Mr. Sayles
Mr. Cavenagh	Mrs. Hainman	Miss Scott
Mr. A. C. L. Douglas	Mrs. Miller	Mrs. Forbes Todd
Mrs. Foley	Mr. Justice Michelin	Mr. Vine
		Mrs. Yeats

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in s.s. *Van Rensselaer*, May 13th:—

Mr. W. Brown	Mr. R. C. Hart	Mr. E. Shapiro
Mr. J. Campbell	Mrs. E. A. Hayes	Mrs. E. L. Stokes
Mr. A. C. Clark	Mr. J. MacLaren	Mrs. A. E. Switt
Mr. N. A. Fluk	Mr. A. E. Nicol	Mr. E. A. Vain
Mr. F. Fox	Mr. L. A. Kallston	Mr. A. H. S. Vigo
Miss F. Grell	Mr. & Mrs. Reece	Mrs. Watson

Home arrivals from West Indies, in s.s. *Oranje Naam*, Plymouth, May 17th:—

Mr. J. F. F. Anderson	Dr. A. E. Flaxman	Mr. A. Mulder
Miss G. Appleby	Mr. W. G. Freeman	Mr. L. Ommannoy
Mr. C. Beaman	Mr. S. Hagley	Mrs. L. Paige & Son
Mr. J. A. Beaman	Mr. W. H. Hagley	Mr. & Mrs. W. R. Redman
Mr. L. A. Bucaro	Miss M. Hunter	
Mr. E. G. Clyne	Mrs. G. M. Hutchings	Mr. J. Roselaar
Mr. & Mrs. E. C. Crombie	Mr. C. A. Hutchings	Mr. Robert Ross
	Mrs. A. B. Hutchings	Mrs. H. C. Smart
	Mr. V. Hunschell	Mr. C. E. Steele
Mr. E. Culpan	Mr. J. Kawangh	Mr. H. Todd
Mrs. B. Dovers	Mr. F. K. Khan	Mr. J. Hampton Wall
Mr. & Mrs. J. M. Duke & Son	Mr. J. Lamoni	Mr. F. Williams
Mrs. & Miss Eden	Mr. W. M. C. Mivrie	

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Mr. F. J. Evans	Mrs. H. H. Sealy
Hon. H. Ferguson	Mr. L. R. Shingles
Mr. J. J. Franco	Mr. W. M. B. Shields
Mr. W. G. Freeman, B.Sc.	Mr. R. Stearns
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Mr. Gordon Graham	Mr. L. A. Torrance
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Mr. W. P. Humphrey	Mr. Hugh F. Wilby
Capt. Thomas H. Irving	Mr. F. Williams
His Hon. Mr. Justice B. C. Jackson	Mr. G. A. Yearwood
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.	
Mr. A. M. Reid, South Lemy, Cirencester, Glos.	
Mr. H. Blin Stoyle, Crediton, Devon.	

STEAMER SAILINGS.

To	From	Packet	Sailing
B'das & T'dad	Dover	... <i>Cryssata</i>	... May 27
West Indies	Glasgow	... <i>Dramatist</i>	... " 28
Trinidad	Plymouth	... <i>Perou</i>	... " 29
Jamaica	Bristol	... <i>Motagua</i>	... " 30
B'das & T'dad	Liverpool	... <i>Antillian</i>	... June 3
Jamaica	Bristol	... <i>Bayano</i>	... " 5
Jamaica	Liverpool	... <i>Miami</i>	... " 6
Ja'ca & B.H'das	New York	... <i>Zacapa</i>	... June 17
West Indies	Halifax	... <i>Chaleur</i>	... " 20
G'ada, T'dad & Demerara	New York	... <i>Matura</i>	... " 20
B'mes, Ja'ca & B.H'das	Montreal	... <i>Canadian Fisher</i>	... " 21
Jamaica	New York	... <i>Metapan</i>	... " 21

WEST INDIAN SECURITIES.

Rate	Security	Latest price.
4 1/2%	Antigua ... 4 1/2 Redeemable 1919-44	84.88
4 1/2%	Barbados ... 3 1/2 " " 1925-42	79.78
4 1/2%	British Guiana ... 4 " " 1925	79.41
4 1/2%	British Guiana ... 4 " " 1925-46	82.64
4 1/2%	Grenada ... 4 " " 1917-42	78.78
4 1/2%	Grenada ... 4 " " 1934	81.92
4 1/2%	Jamaica ... 4 1/2 " " 1919-49	79.81
4 1/2%	Jamaica ... 4 1/2 " " 1922-44	88.71
4 1/2%	St. Lucia ... 4 " " 1919-44	78.80
4 1/2%	Trinidad ... 4 " " 1917-42	83.85
4 1/2%	Trinidad ... 3 1/2 " " 1922-44	70.72
8%	The Colonial Bank ...	81-81 1/2
8%	Royal Mail Steam Packet Co. Ordinary ...	83-97
6 1/2%	Angostura Bitters Part. Preference ...	—
6 1/2%	New Trinidad Lake Asphalt Co. 8% Debentures	108.108
7%	Consolidated Rubber and Balata Estates Pref.	116
—	St. Madeleine Oilfields, Ltd. ...	5/9
—	Apex (Trinidad) Oilfields, Ltd. ...	48/3
—	Petroleum Options, Ltd., 10% ...	116
—	Trinidad Central Oilfields ...	47/6
10%	Trinidad Dominion Oil, Ltd., 10% ...	113
—	Trinidad Leaseholds, Ltd., 12 1/2% ...	25
—	United British Oilfields of Trinidad, Ltd. ...	14
—	General Petroleum of Trinidad ...	6/6
—	Napathna Oilfields of Trinidad ...	15/3
—	Direct West India Cable Co. ...	—
—	W. I. and Panama Tel. Co., Ltd., Ordinary ...	14
—	W. I. and Panama Tel. Co., Ltd., 8% Cum. Int. Pref.	11-21
—	W. I. and Panama Tel. Co., Ltd., " 2nd ...	15-2
5%	W. I. and Panama Tel. Co., Ltd., 5% Debentures...	77-62

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6542.
Telegrams—
"Cavis, London."



15, BERTING LANE,
LONDON, E.C.3.
May 23rd, 1922.

The Board of Trade Returns, as will be seen below, illustrate in a marked manner the effect of anticipation of the Budget in reducing the stocks in retailers' hands, and thus giving rise to a figure for consumption below the actual.

BANK RATE. 4 per cent. as from April 18th.

EXCHANGE. Value of the £ Sterling.

	May 9th £ s. d.	May 23rd £ s. d.		May 9th £ s. d.	May 23rd £ s. d.
In U.S.A. ...	18 8	18 3	In Spain ...	1 2 8	1 2 11
.. France ...	1 18 8	1 19 8	.. Germany ...	65 8 0	68 12 6
.. Belgium ...	3 2 4	2 2 5	.. Austria ...	180 0 0	180 0 0
.. Italy ...	3 6 2	3 8 10	.. Holland ...	19 1	19 0

The intrinsic value of the gold sovereign is £1 Is. 9d.

SUGAR. There has been little change in the New York quotations for Cuban sugar since the last Summary, the value of Cubans yesterday being 6.07c., duty paid and landed, equivalent to 2.46c. c.i.f., or about 2.80c. f.o.b. The future market quotations were: July 2.66c.; Sept. 2.80c.; Dec. 2.91c.

During the fortnight there has been very little change in the home market. West Indian Crystallised was quoted yesterday at 41/- to 43/-; London Granulated 48/-; American Granulated 47/- spot; Imitation Yellow 42/6; White Mauritius 44/- to 45/- spot; Cuban 96 deg. 18/6 c.i.f.; Preferential 96 deg. (buyers) 16/6 c.i.f. The terminal market quotations yesterday were: 96 deg., July, 14/9; August 15/-; White, August 20 3/4d.; September 20 5/4d.

The Returns for April show that the total amount of sugar imported during the month was 193,097 tons, of which 47,347 tons were "refined," and 145,750 tons "unrefined." This brings the total imports for the four months of the present year to 605,856 tons, 134,769 "refined" and 471,088 "unrefined," as against a total import of 461,646 tons for the corresponding period in 1921, of which 100,511 tons were "refined" and 361,135 tons "unrefined." 4,278 tons of the month's imports of refined came from the Continent, and 87,151 tons from the United States, 3,501 tons of the former originating from Czecho-Slovakia. For the four months, 84,826 tons have come from the United States, and 35,692 tons from Europe. For the month, 6,647 tons of unrefined were received from Mauritius, and 10,968 tons from the British West Indies, including British Guiana, the four months' supply from these sources respectively having been 62,872 tons and 35,968 tons, or slightly over 21 per cent. of the total imports.

The total amount of sugar liberated for consumption during the month was only 90,471 tons, as against 111,770 tons in March, including 54,472 tons from the refiners, bringing the apparent consumption for the four months up to 430,625 tons, of which the refiners contributed 279,722 tons, or 65 per cent.

The stocks on hand on April 30th amounted to 814,250 tons, as against 209,900 tons on March 31st. 45,300 tons of these consisted of foreign, and 56,800 tons of home refined. The quantity of home-grown sugar which paid duty for the three months ending March 31st was 2,692 tons.

The West Indian sugar statistics in London on May 13th were:—

	1922.	1921.	1920.
Imports ...	13,988	14,097	20,395 Tons
Deliveries ...	12,810	15,361	12,134
Stock ...	5,873	7,140	18,387

RUM There is absolutely no demand.

Only 121,875 proof gallons of rum were imported for the month, as against 313,101 galls. for March, and only 36,060 galls. went into consumption, as against 75,751 galls.

in March. The total liberated for consumption for the four months has been 448,528 galls., as against 757,572 galls. for January-April last year. Stocks on hand on April 30th were 11,277,000 galls., comparing with 11,418,000 galls. on the last day of the previous month. The exports were 47,125 galls., as against 50,925 galls. in March.

The stocks in London on May 13th were:—

	1922	1921	1920
Jamaica ...	11,081	10,778	7,772 Puns.
Demerara ...	19,600	16,755	13,103 "
Total of all kinds	39,851	37,400	30,251 "

CACAO generally is very quiet. Fine estate Trinidad is quoted at 73/- spot, and fair plantation 69/- to 70/- spot. The latter quality, to arrive, is quoted at 59/- c. & f., and sellers can be found at this figure. No Grenada is offering, and values are unchanged. Fine Jamaica is quoted at 58/- to 59/-, and to arrive, at about 53/- c. & f.

The total imports of cacao for April were 121,855 cwt., making 609,109 cwt. for the four months. The British West Indies supplied 11,009 cwt. of the month's imports, and 30,658 of the four months' amount. The quantity liberated for consumption during the month was 60,833 cwt., making 385,507 cwt. for the four months. The exports were only 40,924 cwt., as against 88,386 cwt. in March, the total for the four months having been 177,700 cwt., as against 116,444 cwt. for the corresponding period of last year. Stocks on hand on April 30th were 772,000 cwt., as against 753,000 cwt. on March 31st.

The stocks in London on May 13th were:—

	1922	1921	1920
Trinidad ...	6,381	23,352	23,780 Bags.
Grenada ...	11,639	28,402	26,169 "
Total of all kinds	107,688	192,267	198,503 "

ARROWROOT. There is rather more doing, at fully steady prices. Fair to good manufacturing, 3 1/4d. to 4d.; good to fine grocery, 4 1/4d. to 4 1/2d.

BALATA. West Indian sheet is quoted at 3/- per lb. spot, and forward 2/10 c.i.f.

BAY OIL continues neglected, and quoted at 9/- to 12/- per lb., according to test.

COFFEE is a very slow market. At auction on Friday last there were large offerings, but scarcely anything sold. No Jamaica has been offered recently. The market will be closed for a fortnight covering the Whitsun holidays, and auctions will resume on June 15th.

The month's imports were 98,801 cwt., of which 5 cwt. came from the British West Indies.

COPRA is very quiet, with West Indian f.m.s. valued at £25 c.i.f. London, and £25 10s. c.i.f. Holland.

COTTON generally has been active, with an advance in quotations. West Indian Sea Island has been in moderate request at steady prices: medium 23d., fine 30d., and extra fine 38d.

HONEY. Since the last auctions the market has shown no change, and only a moderate business has been done at last prices: Jamaica, dark to palish set, 32/6 to 40/-; and fair to fine white, 51/- to 66/-.

LIME PRODUCTS. Lime Oil. Handpressed is slow of sale, and quoted at 17/- per lb. A small sale of Distilled has been made at 2 1/4d. per lb.

Lime Juice. Up to 3/6 has been paid for good new Jamaica Raw in Liverpool. Concentrated is firm at £18, but no further sales are reported.

LOGWOOD. Only a very little business is passing. The c.i.f. value is £8 10s. per ton nominal.

ORANGE OIL. Sweet continues very quiet, with Jamaica valued at 10/-, and other West Indian at 9/-. There is no enquiry for Bitter.

SPICES. There is nothing doing in Pimento. The nominal quotation is 2 1/4d. per lb., or 19/6 c.i.f. First-hand supplies of Ginger on the spot are very limited, and firm prices are asked. There has been less demand for Jamaica to arrive. Quotations for Nutmegs and Mace are somewhat firmer, especially for the latter.

The West India Committee Circular

Vol. XXXVII.

THURSDAY, JUNE 8, 1922.

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

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15, SEYMING LANE,
LONDON, E.C. 3.
June 7th, 1922.

THE BRITISH EMPIRE EXHIBITION.

IN 1924 there will be opened at Wembley Park, London, the greatest industrial exhibition that has ever been held in any city of this or any other Empire. Plans are already well advanced, and an active central organisation is at work putting into practice the aims and ideals of the British Empire Exhibition. The Dominions, Colonies and Protectorates of the Empire are preparing for participa-

tion on a scale worthy of their position. The Government of India has applied for 100,000 square feet of space within the Exhibition grounds for a building suitable to house an exhibit representative of the resources and culture of that vast Empire, and has voted the necessary funds to defray the cost of participation on an extensive scale. The Government of the Union of South Africa has also voted large sums to be devoted to a similar purpose and provisional applications for space have been received from many other States within the Empire, including those as widely separated as Burmah and Nigeria, and territories as little exploited as Kenya and the Sudan. The Exhibition will, undoubtedly, afford the greatest opportunity ever provided for the Dominions overseas to show their products, to draw attention to their resources, and to emphasise their needs either in the direction of immigration, capital, or of sympathetic treatment with regard to their growing industries. The exhibits will be drawn from the British Empire only, and there will, therefore, be throughout the Exhibition an atmosphere favourable to the development of Imperial co-operation on the closest possible lines. British manufacturers will have an opportunity of examining possibilities of fresh sources of supply of raw materials from within the Empire. It must be admitted that many sources of raw material within the Empire are insufficiently known, and that to the majority of British buyers the sources of many finished products familiar in the British market are quite unknown. To all the Dominions overseas, it must be a matter of great importance that their products, their resources, their needs, should be brought prominently before the British public, that the value of their particular commodities as against similar commodities placed on the market by continental countries, should be better known to the private consumer, and there can be no better way to achieve those results than by means of such an exhibition as has been designed to be held in 1924. A few facts with regard to the Exhibition may be stated. It will be open from the middle of July, 1924, until about the end of October of that year. It will be held at Wembley Park, on a site of 145 acres, which, besides providing the necessary space for exhibition buildings, will furnish grounds capable of accommodating immense crowds. These can be reached easily from any point in London or the Provinces. The general arrangement of exhibits will be such as to furnish in regard to each industry an illustration of the whole range of production from the raw material to the finished article. The exhibits of the Dominions overseas will be shown in separate buildings or sections of buildings. Other features will be special sections

devoted to Tropical Diseases, Mineral Resources, Fisheries, the Congress Hall, a special building for Fine Art, a National Sports Ground and a programme of amusements in which the Council hope to attain a higher standard of excellence than has hitherto been reached at Exhibitions of this character. The Commission now in Australia under MAJOR BELCHER on behalf of the Exhibition, conferring with the Governments as to the details of Australian participation, will have visited the larger Dominions by the autumn of this year, when the full scope of Dominion support will be better known. We hope that on their way home they may be able to visit the West Indian Islands and British Guiana, for it is very desirable that those colonies should receive such first-hand information regarding the aims and scope of the Exhibition as will make them realise the importance of their participating in it on a scale commensurate with their growing importance, and we have represented this to the Exhibition authorities.

PAPER IN CANE CULTIVATION.

THE May number of *Sugar* contains an interesting account of the use of paper in cane cultivation in Hawaii, to which reference has been made from time to time in THE WEST INDIA COMMITTEE CIRCULAR. The rainfall of the Olaa Plantation, where the system originated, is over 100 inches per annum, and this excessive moisture necessitates much weeding and consequent labour for the hand cultivation of the young canes. The attention of MR. ECKHART, the Director of the Hawaiian Experiment Station, was some time back drawn to this trouble, and it occurred to him that strips of paper might be used to cover the young canes, and he accordingly commenced experiments in that direction, with the result that 3,100 acres of canes were treated in this manner last year with paper manufactured from megass in a mill erected for the purpose on the plantation. The paper used is 30 inches wide, and weighs 142 lbs. to the ream, about 1,080 lbs. being required for one acre. It is surfaced with asphalt, which makes it waterproof and causes it to absorb heat, thus forcing the growth of the canes by keeping the ground warm. It is laid down on the cane rows after planting, and the young cane shoots are able to burst through the paper, which ultimately surrounds the canes and effectively keeps down weeds. It is stated that the saving of labour thus effected is not less than 50 per cent., and another important point is that the use of paper prevents "leaching" and consequent loss of soluble nitrates used as fertilisers. A further result is that an increased yield of cane is obtained, estimated last year as being not less than 10 tons per acre. This is stated by the Olaa Plantation Company to have meant a direct gain of 39.24 per cent. per acre, obtained by 16.56 per cent. less labour than was required by the rest of the plantation. With the scarcity of labour which exists on the British Guiana sugar estates, coupled with the heavy rainfall and weed growth of that colony, it would seem that considerable advantage might be gained from

their adoption of this method of treatment of the young plant canes. It must be remembered, however, that the value of the Hawaiian sugar protection is double that enjoyed by the British Guiana planters, and that the same economic advantage might not be gained by the adoption of the method. But the system is worth trying, and no doubt the new Planters' Experiment Station in British Guiana has its eye on the matter.

A NEW STEAMER SERVICE.

Elders & Fyffes and the Lesser Antilles.

It will be remembered that in December last Messrs. Elders & Fyffes diverted their s.s. *Coronado* to Trinidad in order to take Sir Samuel Wilson, the then Governor-designate of that colony, to Port of Spain. They have now informed The West India Committee that they have definitely decided to give a sailing once a month to Barbados and Trinidad, commencing with the s.s. *Camito* on November 4th. The itinerary will be as follows:—

Avonmouth, leave November 4th.

Barbados, arrive and leave November 17th.

Trinidad, arrive and leave November 18th.

Port Limon, arrive November 23rd, leave 24th.

Cristobal, arrive and leave November 25th.

Kingston, arrive and leave November 27th.

The steamers will carry passengers only, since they are, as is well known, banana carriers.

This new service will be specially welcomed in the Northern Islands, since the steamer will arrive at Port of Spain on the day preceding that on which the Canadian Royal Mail steamer leaves on her Northern voyage. The position with regard to Demerara is, however, not so satisfactory, since a passenger reaching Trinidad on November 4th, for example, would have to wait until the 10th for the south-bound Canadian steamer, though he might possibly pick up one of the Quebec Steamship Company's steamers for Georgetown, at Barbados. The new service will also form a much needed link between the Lesser Antilles and Jamaica, and though the voyage between Port of Spain and Kingston will occupy nine days, it will be better than anything experienced since the Royal Mail Steam Packet Company's service was suspended.

Messrs. Elders & Fyffes add that they will, of course, arrange for return calls early next year.

It is proposed that the outward sailings shall be so arranged in relation to those of the Harrison Line steamers *Intaba* and *Ingoma* as to give the West Indies a fortnightly passenger steamer service at any rate during the winter months. Thus, as at present contemplated, the s.s. *Ingoma* will sail from Tilbury on or about November 18th. This should lead to a revival of the tourist business. Before the war quite a number of visitors from England spent the winter in the West Indies, but recently they have been debarred from doing so owing to the lack of direct passenger communication, for experience has shown that comparatively few can afford the time or the means to make the long journey via Canada or the United States.

SOME NOTES OF INTEREST.

"Two cents man can't change half bit silver."

* * *

LAST year's cacao exports from Java amounted to 1,057 tons as against 944 tons in 1920.

* * *

ON December 31st last year the unexpended balance of Trinidad's million pound loan, raised in 1920, amounted to £688,748 5s. 4d.

* * *

MR. WINSTON CHURCHILL returned to the House of Commons on the 22nd May after an absence of several weeks due to an accident incurred in the polo field.

* * *

THE Canadian Government have made arrangements with the Royal Mail Steam Packet Company for the continuance of its Canada-West Indies steamship service for two years from April 1st, 1922.

* * *

THE largest acreage of sugar beet ever sown in the country is reported from the Midland and Eastern Counties by the British Sugar Beet Growers' Society, the total for the Kelham and Cantley Beet Sugar Factories being over 8,000 acres.

* * *

THE Pennsylvania Bureau of Food has, says the *Tea and Coffee Trades Journal*, given a clean bill of health to the chocolate-coated ice-cream bars sold in that State. Ninety samples from thirty cities were examined and found to be entirely free from paraffin, coconut-fat, or adulteration of any kind.

* * *

THE total output of crude potash salts from the French and German mines during the last two years has been, in metric tons, as follows:—

	Alsace.	Germany.
1920	1,061,197	11,886,480
1921	902,100	9,241,179

* * *

ELDERB & FYPFES (France) SOCIETE ANONYME is the title of a company registered under French law to develop the banana business with France. The company, which has acquired land at Saint Ouen, has a capital of 1,000,000 francs, and it is expected that it will handle its first direct continental shipment of bananas next year.

* * *

THE report of the Atlantic Sugar Refineries, Ltd., Canadian refiners, shows a deficit on the profit and loss account of \$5,188,279 for the year ending December 31st, 1921. The issued capital of the company consists of \$1,111,100 seven per cent. cumulative preference stock, \$4,388,900 ordinary shares, and \$1,195,000 six per cent. first mortgage bonds.

* * *

A NEW white paint pigment, with titanium oxide as its prime factor, is being brought forward. It contains 26.5 per cent. of titanium oxide and 78.5 per cent. of barium sulphate. It is claimed that

its great value is for protective purposes. It is not discoloured by sulphuretted hydrogen, nor attacked readily by sea or salt water. Its opacity is great, and it is innocuous to the painter.

* * *

EVERY effort is being made to push the sale of cocoa and chocolate in the United States. The *Tea and Coffee Trades Journal* states the Forbes Chocolate Co. are manufacturing a new product known as chocolate shavings. By using these it is unnecessary for the consumer to shave the cake of chocolate in making cup chocolate. One Pennsylvania dealer is presenting an aluminium saucenpan with every four pounds of cocoa.

* * *

FOLLOWING on their *Mill Bulletin* in Portuguese, the Fulton Ironworks Co. have now published an edition in Spanish, which can be obtained by applying to the company at their office in St. Louis. The photographs of five and six unit mills, driven by steam, as in the case of Cuba's biggest factory, Delicias, and by electricity in the case of the Cunagua factory, are extremely interesting and valuable. The number of the *Bulletin* is 101.

* * *

THE American Beet Sugar Company's report for the year ending March 31st shows a deficit on the year's operations of \$2,634,046, as compared with a deficit of \$188,508 for 1920-21. The net loss on the production and sale of sugar during the year was \$2,157,875. The average price realised for the 1,557,094 bags of sugar sold during the year was \$5.98 per bag. The capital of the company consists of \$15,000,000 of common and \$5,000,000 of preference stock.

* * *

MR. ROBERT STRANG, manager of Plantation Utivlugt, Demerara, is quoted in the *International Sugar Journal* as saying that the Thomas and Petree process, in which the use of filter presses is entirely eliminated, constitutes a remarkable improvement in factory methods, and that, in spite of the prevailing depression in the industry, it would pay every factory to install it. He calculated that by its introduction he would save at least \$2 per ton in the cost of manufacture. Not only so, but the sugar was of better quality, and he hoped that eventually white sugar would be made.

* * *

THE American Vice-Consul at Santo Domingo gives the details of the exports of cacao from that country for 1918, 1919, and 1920, as being:—

	1918.	1919.	1920.
Destinations.	Kilos.	Kilos.	Kilos.
United States	12,868,952	20,137,896	19,282,878
United Kingdom	8,424	—	246,235
France	3,295,327	2,111,682	3,081,302
Germany	3,265,178	—	218,555
Italy	—	—	3,550
Spain	—	—	320,726
Netherlands	—	52,580	125,551
All other countries	2,946	115,977	111,304
Total	19,470,827	22,418,335	23,389,007

* * *

IN order to benefit by the lower rate of duty provided for under the preferential tariff, goods of

British origin imported into Trinidad by parcel post must be accompanied by a certificate, which may be in the following shortened form:—

"I, the undersigned, declare that the contents of this package are the growth or produce, or, if a manufactured article, is to the extent of at least one-fourth of its present value bona fide the manufacture of (here state Empire country of origin)."

The Postmaster-General states that if this certificate is not produced Customs duty will be charged at the higher rates prescribed by the general tariff.

* * *

In an article on "Molasses Foods," in *The Fertiliser and Feeding-Staffs Journal*, Mr. H. C. S. de Whalley, A.I.C., after enumerating the various forms of molasses cattle foods, makes the important statement that only in the case of molassine meal, in which Sphagnum Moss is the absorbent, is there any extra benefit derived from their being more easily handled than molasses alone. The statement is apparently based on the moss "reducing the soda to potash ratio by combining with part of the potash salts, converting them from a soluble to an insoluble form, so that they are rendered harmless." An ounce of stockyard practice is worth tons of laboratory theory, and the solid fact is that the supplies of Molasscuit are readily swallowed up as they come to hand.

* * *

DR. J. EDMESTONE BARNES, the author of "The Economy of Life. Some suggestions for World Betterment" (Chorley, The Universal Publishing Co.), which has recently made its appearance, was born in Jamaica in 1857, and educated at the Kingston University School. Subsequently he has travelled in many countries and held many and varied appointments, including that of surveyor and engineer of the South American gold mine, "Callao"; surveyor-general, and afterwards Director of Public Works of the Liberian Republic (which he represented on the Boundary Commission that determined the frontier-line between the Republic and Sierra Leone); and managing director of the Lahun Gold and Diamond Mining Syndicate in West Africa. The book, the writing of which has occupied its author 15 years, expounds Dr. Barnes' theories of national and racial regeneration, as illustrated by his reading of current events.

* * *

CONSIDERABLE advance has of late been made in the development of our knowledge of the constitution of, and the relation to each other, of what are known chemically as the elements, the lightest of which is hydrogen. For some time past it had become evident that the atoms of which these are composed were electrical structures of the same type, consisting of a minute but solid nucleus surrounded by protective "electrons." It has also been shown that there is simple relation existing between the elements, which pointed to the nuclei of all the elements consisting ultimately of an ordered structure of hydrogen nuclei and electrons. Sir Ernest Rutherford, F.R.S., at the annual meeting of the Institute of Metals, held recently, stated in this

connection that experiments made by Dr. Chadwick and himself with the use of radium had resulted in the protecting zone of electrons in the case of nitrogen, fluorine, sodium, phosphorus, and aluminium being penetrated and small quantities of hydrogen cleaved off from the nuclei of these so-called elements.

* * *

MR. CLEMENTI, in his recent lecture on Colonisation in British Guiana, said that the prime requisite in a scheme of free emigration from India to British Guiana was the establishment of cheap, regular, and direct lines of communication between those countries. In justice to Messrs. James Nourse, Ltd., it should be mentioned that that firm maintains a regular monthly service, with additional sailings as required, from Calcutta to the West Indies. Vessels call at Demerara as required, provided the depth of water on the Bar at Demerara is sufficient for the vessel to cross. With regard to the return voyage, vessels are despatched from time to time from Demerara to Calcutta when there is a sufficient number of people requiring passages. Otherwise, vessels from Calcutta, after completing discharge in the West Indies, return to India with cargo from Cuba or America via the Mediterranean, or via the United Kingdom, as circumstances from time to time dictate. In the case of vessels returning to India via the Mediterranean, it would be possible to carry a certain number of people if passages were required.

* * *

THE *Maritime Merchant* states that the Association of Hawaiian Pineapple Cannery are using the leading magazines in the United States to carry on an educational campaign to promote the use of crushed and grated pineapple. The campaign will embrace 32,500,000 messages in colours and 17,000,000 in black and white, to go before the readers in 8,000,000 of the best-buying homes on that continent. Apart from this, the product is being pushed among pastry makers. This effort is being made in order to avoid a waste which is now incurred in the manufacture of sliced pineapple. In order to produce the latter article in its present luscious state, there is the core and a part also of the fruit outside the circumference of each slice from which there is little sale; yet it is just as "flavourful" and desirable, apart from the fact that it is in the form of scraps. These scraps are now grated and crushed and put up in 1, 2, 2½ and 30 lbs. tins for use in culinary processes. Pies and desserts may be very advantageously made from this by-product of sliced pineapple, and an effort is being made to cultivate a demand for it on a large scale for this purpose.

RED COCK-TAIL.—Take a full teaspoonful of white sugar, and add to it a cock-tail glass of water, melting the sugar. Add two or three teaspoonfuls of Angostura bitters, swizzle well, and then pour in a cock-tail glass of good old rum. Put into this as much pounded ice as will make it very cold. Swizzle well until a white foam is raised, then strain and serve at once. (These directions should be followed in detail if a good cocktail is to be the result.)

REFINED SUGAR IN INDIA.

By RAO SAHEB KASANJI D. NAIK, M.A.

The author of this article is the Officiating Secretary of the Sugar Bureau of the Imperial Department of Agriculture in India at Pusa. He deals with the output of refined sugar in India in 1921.

In India, there are at present 18 factories refining raw sugar, gur or rab. Four of these are situated in the province of Bihar and Orissa, 8 in the United Provinces, 4 in Madras, 1 in Mysore, and 1 in Bengal. Enquiries were instituted by the Sugar Bureau to ascertain the quantity of gur and raw sugar melted, sugar made, and molasses turned out by each of these factories during the working seasons of 1920 and 1921. Returns from all factories except three were received for the season 1920, while only one factory failed to submit a return for the season 1921. Grateful acknowledgments are due to the management of the various factories for the readiness with which they supplied the information required.

We give below the total figures of gur and raw sugar melted, sugar made, and molasses turned out by these factories:—

	Year 1920.	Year 1921.
	Maunds*	Maunds.
Gur and raw sugar melted	2,212,617	2,471,026
Sugar made	1,211,274	1,324,646
Molasses obtained	723,965	870,704

The figures for the season 1921 are higher, largely owing to the fact that two factories commenced refining gur for the first time, and returns were received from two factories which did not furnish similar information for the previous season.

A study of the returns submitted by individual factories shows that there is a wide variation in the percentage of recovery of sugar from the raw material dealt with. In Northern India, where the refining jaggery is of an inferior value, the recovery of sugar varies from 95 to 45 per cent., according to the efficiency of the factory. In Southern India where the quality of gur melted is superior, better results are obtained. It follows, therefore, that in Northern India the percentage of molasses turned out is comparatively higher. The largest number of refineries is in the United Provinces; yet the Madras Presidency produces the largest amount of sugar refined from gur or jaggery. The United Provinces only produced 850,320 and 658,417 maunds in the seasons 1920 and 1921 respectively, as against the out-turn of 410,109 and 481,448 maunds in the Madras Presidency.

A note published by the Secretary, Sugar Bureau, in the Indian Trade Journal, dated the 1st December, 1921, gives the total quantity of sugar and molasses produced by factories making sugar direct from cane for the year 1919-20 and 1920-21 as follows:—

If the quantity of sugar as refined in the country is added to these figures the total refined sugar pro-

* A "Maund" is equivalent to 82.3 lbs.

† Includes some raw sugar imported from abroad and refined locally.

THE GERMAN SUGAR MARKET.

The German Government have removed the embargo on the importation of sugar. This step was adopted on May 23, in spite of the protests of the German sugar manufacturers, who declared that if foreign sugar must be admitted it should pay a gold duty of 1,400 marks. It is said that the decision of the German Food Minister to open the local markets to foreign sugar is due to the profiteering of the dealers, who have forced the price of sugar up to 20 marks per pound. The dealers, faced with the prospect of competition with West Indian sugar, are now demanding protection.

In this connection it may be of interest to add that Herr Licht gives the following preliminary estimate of the European sowings in hectares for the campaign of 1922-3, as compared with those of 1921-22.

	1922-23	1921-22
Germany	340,000	332,880
Cz. Slovakia	195,000	204,000
France	140,000	107,735
Holland	63,500	70,496
Belgium	58,000	57,514
Sweden	16,000	48,568
Denmark	4,000	34,000
Poland	97,000	81,000
Russia	220,000	215,769
Hungary	29,000	34,610
Italy	84,500	73,305
Others	95,000	85,000
TOTAL.	1,382,000	1,344,957

It will be noted that an increase of 17,043 hectares, or 1½ per cent., is shown. One hectare is equivalent to 2.471 acres.

The United Kingdom's revenue in the year 1921-1922 from the Customs duty on sugar and molasses was approximately £85,947,000. This year it is estimated at over a million pounds less. The Excise duty on sugar and molasses, which last financial year accounted for £811,000, is this year only expected to bring in £650,000. Imported spirits paid last year £11,541,000 to the Customs, as compared with £51,112,000 paid to the Excise by home-made spirits, but for this year the Chancellor of the Exchequer is only expecting to obtain £10,300,000 and £47,700,000 respectively. The revenue derived from cocoa during these two periods is put down as £1,865,000 and £1,310,000 respectively, and that from coffee as £597,000 and £440,000.

(Continued from preceding column.)

duction would amount to 1,993,037½ maunds, or 73,113 tons, in the season 1920-21, as compared with the total production of 1,840,104½ maunds, or 67,476 tons, in the previous season.

Year	Sugar made Maunds	Molasses Maunds
1920-21	669,291	404,712
1919-20	628,920	370,953

COLONIAL RESEARCH COMMITTEE.

Valuable Work in the West Indies.

The Colonial Research Committee, of which Sir Halford Mackinder, M.P., is Chairman and Mr. E. R. Darroley (to whom the origin of this useful department is due) Secretary, has now issued its second annual report,* from which it appears that the grant in aid of Colonial Research has not escaped the blows of the economy axe, it being recommended that the grant for 1922-3 should be reduced to £1,000, without, however, any reduction in the total amount of £100,000 to be provided in the aggregate.

Dealing with the progress of the work which is being performed under the Committee's auspices, the report states that Mr. Crawshaw, who is stationed in the Bahamas, has continued his investigation of sponge throughout the year, and an area of sea amounting to about two square miles, immediately adjoining the laboratory building, has been closed against all sponging with a view to its employment as an experimental ground. About 400 sponge cuttings have been planted within this area and are now under observation. The several cuttings are all marked with a distinguishing number stamped on the disc, enabling a record to be kept in each case of the conditions of planting and of the subsequent progress of the cutting, the positions being marked by a buoy having lead label attached. As discs for attachment, different kinds of hardwood have been employed, with a view to economy and simplicity of method, and in order to test the suitability of these for the purposes required. Three woods locally known as Red Torch, Mastic and Whitewood have so far been used. Cement discs are also being made by means of wooden moulds. These have not yet been used for planting. A cutting is attached to a disc by means of a pin passed through the cutting and through a small hole bored in the disc, the pin being made from the stalk of the palmetto. The results of the experiments have so far been good, the rate of mortality being very low and the losses being in all cases easy to account for. A quantity of minute bodies, apparently vegetable organisms, which occur in Plankton samples taken with the fine tow-nets, may be found to contribute an important part towards determining the question of the food supply of sponges, but no definite conclusions can at present be drawn on this point.

British Honduras has had the advantage of having two experts, whose services have been provided by the Committee. Mr. Hummel, the forestry officer, has completed his examination of the forests of the Colony and furnished a full report, the printing of which is under consideration. An abstract of the economic aspects of the report will appear in next issue. Mr. L. H. Ower, the geologist, who arrived in the Colony in the middle of last year, has furnished a progress report, which, however, has not yet been received in this country. Mr.

Ower is expected to return to England in the autumn of 1922 for the purpose of working out his results.

The Government of Jamaica found themselves unable to co-operate with the Committee in the investigation of the Panama disease, and up to the present it has not been found possible to proceed in the matter.

Minerals in the Leeward Islands.

Mr. K. W. Earle, who was sent to investigate the geological conditions of the Leeward Islands, visited Antigua, Barbuda, the Virgin Islands and Dominica, finally leaving for England in August last year. No new minerals have been discovered, but the information which he has obtained is of considerable importance from the agricultural and hygienic standpoints and certain vague hopes of mineral wealth have been proved to be without foundation. His first report deals with the geology of Barbuda. This island consists almost entirely of limestone, which is of excellent quality, but there are no other mineral products of economic value, except some phosphates and encrustations of salt. There appears to be an ample supply of underground water. A special report is devoted to the phosphate deposits. These occur in caves. There is some phosphate of good quality, but it is so small in amount that it can never be of economic importance. The phosphates of the island of Redonda have not yet been visited.

Mr. Earle has also furnished a report on the geology of Antigua, and has prepared a geological map of the island. He has been able to correct the views of previous workers on the geological structure, and to show that the Cassada Garden gravels are not surface deposits, as had been supposed, but underlie the limestones on the north and east of the Island. On the south-west, they overlie the ashes and sedimentary rocks, which rest on the volcanic rocks forming the lofty hills that characterize the south-west of the Island. He was unable to find any traces of oil, and considers that the structure of the country and especially the absence of anticlinal folds is not such as to favour the storage of any oil that may have existed. There appears to be no evidence of metalliferous deposits other than iron ore, which is not likely to occur in the amounts required by the modern iron and steel industry. The volcanic rocks would, however, furnish valuable road metal and building stone.

Mr. Earle also deals with the question of water supply. There does not appear to be any reason to anticipate that a satisfactory supply of pure water could be obtained from beneath the central plain or the limestone heights on the north-east. The water occurring in the Cassada Garden gravels already referred to contains too much salt to be available for drinking purposes. But in the volcanic hills to the south-west of Antigua there appears to be an abundant supply of water. Mr. Earle suggests that it should be stored by damming the hill valleys and there is no doubt that sufficient for all needs could be obtained in this way. The possibility of the existence of an underground supply in the hills should not be neglected, but in the irregular structure of a volcanic area such supplies are much more

*A summary of the first report was published in THE WEST INDIA COMMITTEE CIRCULAR of March 17, 1921, p. 102.

difficult to locate than in most regions composed of sedimentary rocks.

Mr. Earle furnished two reports on the Virgin Islands, one on the copper and molybdenum deposits of Virgin Gorda, and the other on the islands generally. Unlike the other Leeward Islands, which consist almost entirely of limestones and volcanic rocks, the Virgin Islands are formed of metamorphosed rocks, highly altered sediments and volcanic breccias—into which plutonic rocks, chiefly diorites, and dyke rocks, especially pegmatites, have been intruded. It is in rocks of this description that metalliferous veins are particularly apt to occur, and the molybdenum and copper deposits of Virgin Gorda are an example of such occurrence. Other occurrences are noted by Mr. Earle, but so far none are known to be of much economic importance. On account of the difficulty of access to the more isolated islands and of the thick scrub covering much of the ground, the region is, however, by no means easy to prospect. Mr. Earle's report on the group is most interesting, and he has embodied his results in a preliminary geological map. Much work however still remains to be done. Although he furnished a report on the metalliferous deposits in Virgin Gorda, he was unable to give a complete account of the deposits because they were covered up with mine refuse. It is understood that these deposits are now being opened up and it is desirable that Mr. Earle should pay another visit to the Island to make a further examination of the veins.

It is proposed that the scientific results of Mr. Earle's work should be presented to the Geological Society in a paper, but that this should be deferred until the fossil remains have been determined, so that the periods when the rocks were laid down may be ascertained.

Mr. Earle left England on the 2nd December, 1921, to resume his investigations. It is intended that he shall make an examination of St. Kitts and Nevis, and if time permits also of Anguilla, and then complete his work in Dominica. He will pay a short visit to Guadeloupe for the purpose of comparing its structure with that of the British islands. He will afterwards proceed to the examination of the Windward Islands. A further visit to Virgin Gorda will be interpolated into this programme if the mines on that island are opened up.

MR. JAMES J. SABEY, who was for twenty years with the firm of Messrs. Nathan & Godfrey, and has been connected with the West Indies and British Guiana for over forty years, embarked on business on his own account on June 1st, under the name of James J. Sabey & Son, at Evelyn House, 101, Finsbury Pavement, E.C.3. He has been appointed sole agents for Messrs. G. Bettencourt & Co., Ltd., of Demerara and Surinam.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

The Imperial Department's Work.

Mr. Joseph Jones, in his Annual Report on the Agricultural Department, Dominica, for 1920-21, states that if the average planter of limes were asked in what direction the improvement of his trees might be effected, he would nine times out of ten reply: "By increasing the citric acid content of the fruit." Mr. Jones points out the difficulty and the danger of trying to effect improvement in this direction. The Dominica lime at present is of all things hardy and resistant to disease, and if breeding experiments were successful in respect of increasing the acid content they might be disastrous by developing susceptibility to parasites. Moreover, such experiments would take many years before useful or reliable results could be secured. Mr. Jones goes on to say that the real need for improvement in Dominica is in connection with the better treatment and care of existing trees. At the Lime Experiment Station as much as 500 barrels of limes per acre have been obtained, whereas the average estate yield during the last year or two has been less than 100. In the course of his interesting report, Mr. Jones calls attention to the reasonably good prospects which are offered by the cultivation of coco-nuts and camphor in Dominica. Camphor may be found a suitable crop for the interior, because the transport of its produce would present no serious difficulties on account of its small bulk and negligible weight.

Reverting to limes, some interesting figures as to citrate of lime production in Sicily appear in *Bollettino della Camera Agraria* sede Messina for December, 1921. The stock in Messina last October was 521,026 Kg., compared with 13,886 in 1918-19. During October to December, 1921, 10,954,205 Kg. were shipped, compared with 8,272,159 in 1918-19. These large increases have unquestionably depressed the market demand for citrate from the West Indies.

In regard to sugar production, it is of interest in the West Indies to note certain large developments at comparatively new and little heard of centres. Two such centres are the Philippines and Brazil. In 1920 the sugar output of the Philippines was 423,590,253 kilos, of which the island of Negros (occidental) was responsible for 36.7 per cent. The development of the sugar industry of Negros was called attention to by the Imperial Department of Agriculture for the West Indies in the *West Indian Bulletin* (Vol. XI.). Brazilian developments have recently been noted in the *Louisiana Planter*. The State of Pernambuco has no less than 54 modern central factories, and has a total output of sugar equal to nearly 900,000 tons of sugar per annum.

Turning to matters of more local interest, recent reports from all the Presidencies of the Leeward Islands state that favourable weather has been experienced during April. The cotton crop and the young canes are in excellent condition. The

weather has been showery throughout. The yields of cane of last year's crop in the Basseterre district of St. Kitts are low, however, giving only 8 to 15 tons per acre. Next year the yields are certain to be much better.

Attention continues to be given to experiments with Bay oil in Montserrat and with camphor in Dominica. The Bay oil industry, especially, has great possibilities in view of the reduction in the St. Thomas supply. St. Thomas, by the way, still continues to be a good market for Tortola produce, especially onions and other vegetables. In connection with vegetables an instructive pamphlet has recently been published by the Chilean Nitrate Committee. This is well illustrated, and describes the most suitable varieties and methods of cultivation of different vegetables. The manual question, while being adequately dealt with, is not unduly emphasised. The author is Mr. R. S. Cunliffe, B.Sc.

Two general botanical matters of interest to the West Indies have recently come under notice. V. C. Aldaba, in the Philippines, has made an interesting enquiry into the way in which coconut flowers are pollinated. (The *Philippine Agriculturist*, December, 1921.) The coconut is both close and cross pollinated, that is, a cross is possible between flowers in the same tree and between flowers in different trees. The female flowers become receptive to pollen after two or three weeks from the time of the appearance of the inflorescence from its sheath. When receptive the flowers look like small green nuts. They remain "receptive" only for two or three days. And as the pollen bearing flowers in the same inflorescence have by that time fallen off, the female flowers depend upon other inflorescences on the same or on other trees for their fertilisation. Artificial pollination is possible theoretically. But there is a limit to the mechanical possibilities of an inflorescence, and there is also the factor of bud and fruit shedding—points with which Mr. Aldaba does not deal.

The other matter of botanical interest is not new, but worth calling attention to. It appears that in 1905-07 collections of grasses were made by Professor M. E. Peak in British Honduras—a colony about whose indigenous flora we know very little. The grasses referred to are described in the *Proceedings of the American Academy of Arts and Sciences*, Vol. XLIX., No. 8, October, 1918. By now the list no doubt needs careful revision, but is nevertheless useful and interesting. By this time a large amount of information concerning the native trees of British Honduras should be available from the botanical collections made by Mr. C. Hummel in 1920-21, and sent to Kew.

With further reference to trade matters affecting the West Indies, interesting figures are recorded in the Supplement recently issued by the Canadian Government in the *Trade of Canada for 1920-21*. While great increases are to be noted in the exports from Canada to the British West Indies, there were greater increases in respect of Fiji and Cuba. The value of the exports to Cuba rose from \$5,000,000 in 1914 to as much as \$37,000,000 in 1921. This is quite remarkable, and seems to show that Canada can compete with the United States.

THE MERITS OF RAW SUGAR.

Dr. F. W. Alexander, Medical Officer of Health for Poplar, has prepared a special report on the possible causes and the prevention of malignant diseases, in the course of which he says:—

"Diet is the basic element on which all health, good and bad, rests, and the extension of cancer appears to depend largely upon the altered conditions of modern life, particularly along the lines of errors in eating and drinking, causing deficiency



"Professor" Pile.

"Professor" Pile, the Georgetown alligator expert, is here depicted in the act of imitating the alligator "call."

of potassium in the system, due to systematic indulgence in unsuitable or wrongly cooked food.

"The cells which make up the fabric of our bodies cannot possibly retain their healthy condition unless they are supplied with suitable salts. The blood which nourishes the cells should be kept in a healthy condition by being supplied with the products derived from the materials which have not been deprived, by heat or other means, of their salts and vital principles. It behoves a meat eater, if he would avoid the ill-effects of too copious a meat diet, to partake freely of suitably cooked vegetable food or raw fruits rich in potassium.

"Potatoes and vegetables are deprived of their valuable salts by boiling, and these salts are poured down the sink. Potatoes and vegetables should be steamed, and the condensation dregs should be partaken of in soups, stews, etc. Crude or brown sugar contains a large proportion of potassium salts, which is for the most part removed from the white or refined article."

AN ALLIGATOR'S NEST.

Reptile's Domestic Habits.

By G. E. BODKIN, B.A., Dip. Agric. (Cantab),
F.E.S.

Some years ago an illustrated account was given in THE WEST INDIA COMMITTEE CIRCULAR of the famous alligator catcher of British Guiana—"Professor" Pile by name.

The two illustrations reproduced in this issue, with the "Professor's" portrait, from the author's own photographs, are of an alligator's nest, with the contained eggs exposed—both near and distant views.

This nest was discovered by the redoubtable Pile in a clump of bamboos in the Botanic Gardens, Georgetown, British Guiana, in the vicinity of one of the lakes. There were several layers of eggs beneath the ones depicted in the photograph. The covering of damp and decaying bamboo leaves was removed to show the eggs.

During the months of June and July, Pile is actively engaged in locating alligator nests. Female alligators have a habit of constructing their nests in the same spot, year after year, despite the fact that they are regularly despoiled by the worthy Pile. Each nest is visited several times, and the eggs are not removed till they are ready to hatch. Alligators mate during the months of May and April. During this period the males perform nocturnal, terrestrial perambulations in search of the females, and give forth a characteristic sound which Pile describes as a "roar." Violent combats then take place between the males and, as is usually the case, it is the survival of the fittest.

The female alligator commences to construct the nest some three weeks before the actual deposition of the eggs takes place. A secluded, well con-

cealed spot is chosen. There is always a track, sometimes two, leading from the nest to the water; the nest is never far therefrom.



An Alligator's Nest.

This nest was discovered in the Botanic Gardens, Georgetown, Demerara, by "Professor" Pile, the well-known alligator catcher.



Alligator's Eggs.

These eggs closely resemble those of the duck. Below them were several more layers, an average deposit being from 20 to 45.

The nest itself is composed of decaying vegetation secured from the surrounding growth; as often as not it is of bamboo leaves. This material is raked together into a solidly composed, irregularly shaped heap about three feet high.

In the centre thereof the eggs are deposited. In number they vary from twenty to forty-five.

A point which strikes one about such nests is their solid construction, layer upon layer of decaying leaves being pressed well down upon one another. The centre is distinctly damp with a raised temperature. The external appearance conforms well with the surroundings. Nest-making is carried on exclusively at night, and when the eggs are laid the female is continually on the watch.

The eggs are uniform in size and shape, and in colour pure white. In length they are 2½ inches, in breadth 1½ inches. In shape they

are not unlike a fowl's egg, but somewhat more elongate. The surface is rough, and produces a harsh grating sound when in contact with another egg. The noise thus produced is not unlike the grating produced by contact of the surfaces of red earthenware flower-pots. The incubation period is about 75 days.

The young alligators break the shells themselves, though the mother may help them out. They require at once to the water—their natural element.

The young alligators grow rapidly, and easily double their size within the year. Their food consists principally of small fish and frogs. With age and accompanying bulk they grow bolder and attack large birds of prey. The young alligators are themselves preyed upon by large fish, birds and their own kind.

THE MIAMI-BARBADOS CABLE.

The State Department at Washington confirmed on May 4th the permission granted by the United States Government to the Western Union Telegraph Company to land the Miami-Barbados cable at Miami, Fla. Officials, however, took care to explain, says the *New York Times* Washington correspondent, that this permission does not end the long-standing controversy between the cable company and the Government. Authority is granted merely to land the cable, and not to operate it. Upon being landed, the cable will be sealed and will remain so until the negotiations now in progress are completed. It is expected, however, that the matter will be satisfactorily settled in the near future.

It is understood that negotiations are in progress between the Western Cable Company, a British concern with which the Western Union Company has a working agreement, and the All-American Cable Company, an American concern, looking to the renunciation of certain monopoly privileges now enjoyed by the two companies on the East and West coasts of South America respectively.

The controversy with the Western Union, which began during the Wilson Administration and resulted at one time in the use of naval vessels to prevent landing the cable at Miami, grows out of the policy of this Government in refusing to countenance cable monopolies. The Miami cable was intended to connect at Barbados with a line of the Western Cable Company, which connects with Brazil, where the British concern enjoyed monopoly rights.

The persistent attitude of this Government led the Western Cable Company and the All-American Cable Company to enter into negotiations looking to the mutual renunciation of their monopoly rights. When these are concluded the cable will be opened.

This matter is of importance to the West Indies since it was provided under the landing agreement at Barbados that in the event of all other means

of telegraphic communication breaking down the companies owning the Miami-Pernambuco cables should accept messages for the outside world.

THE UNITED STATES TARIFF.

The proposed new Customs Tariff of the United States, as reported to the Senate on 10th of April, varies very considerably from the Bill in the form in which it was passed by the House of Representatives last year. The following table shows the revised rates of duty on some of the principal products of the British West Indies:—

Angostura bitters, per proof gallon	...	...	...	92 60
(Other bitters, 45).				
Arrowroot (in its natural state)	...	...	...	free
Asphalt	...	...	...	..
Bananas, green or ripe	...	...	...	..
Chicle, crude, per lb.	...	...	...	15 cents.
" treated, per lb.	...	...	...	20 "
Cigars, per lb.	...	\$4 50	25%	ad valorem
Citric acid	...	...	25%	ad valorem
Cocoa and chocolate, prepared, per lb.	...	...	...	1 cent.
" " (valued at more than 20 cents. per lb.)	...	...	...	2 cents.
Coconut oil, per lb.	...	...	...	4 cents.
Coconuts, each	...	...	...	4 cent.
Cotton (1½ in. staple or more), per lb.	...	...	...	7 cents.
Diamonds, rough	...	...	10%	ad valorem
Honey, per lb.	...	...	...	3 cents.
Limes and oranges, per lb.	...	...	...	1 cent.
(Lemons " " 2 cents.)				
Lime juice	...	...	...	free
Mahogany (unmanufactured)	...	...	15%	ad valorem
Molasses and syrups (not above 75°), per lb.	...	...	1½%	cents.
" " (not above 48° sugar), per gall.	...	...	1	cent.
Nutmegs (unground), per lb.	...	...	...	2 cents.
(ground)	...	...	...	5 cents.
Petroleum crude, fuel or refined	...	...	...	free
Pimento (unground), per lb.	...	...	...	1 cent.
" (ground)	...	...	...	3 cents.
" (preserved whole) per lb.	...	...	...	6 cents.
Sugar (not above 75°), per lb.	...	...	...	1½ cent.
for each additional polariscope degree...	...	...	...	1/10 cent.

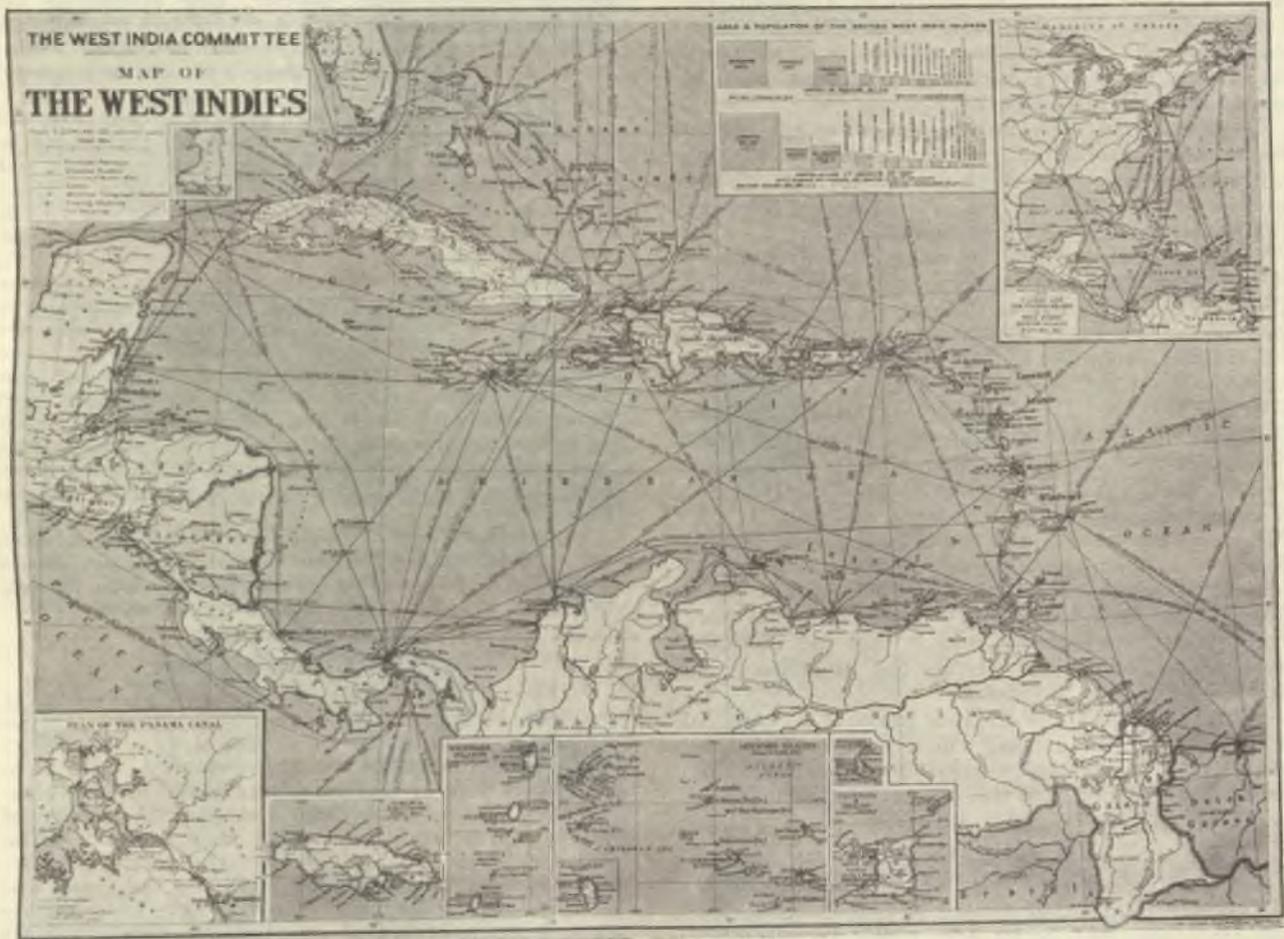
CERTIFICATES OF ORIGIN.

Uniformity has long been a slogan of The West India Committee, whose members will be glad to learn that the action taken with regard to Certificates of Origin under the Preferential Tariffs is bearing fruit. It will be recalled that the Committee drew attention to the complete lack of uniformity which characterised these forms of certificates when they were first promulgated, and urged that steps might be taken to bring about uniformity with a view to simplifying and facilitating trade between the mother country and the British West Indies. Meanwhile the Imperial Customs Conference recommended a form of Certificate of Origin for adoption throughout the Empire. This was submitted to the West Indian colonies by the Secretary of State, and has now been adopted by all with the exception of some of the Leeward Islands and British Guiana, with very satisfactory results. It is much to be hoped that the two colonies now standing out of the arrangement will shortly complete the circle, and will show once again that the West Indies are capable of acting uniformly in such matters.

NEW MAP OF THE WEST INDIES.

The West India Committee's new Map of the West Indies has now been published, and copies can be obtained from the Secretary, The West India Committee, 15, Seething Lane, E.C.3. The size of the map, which is handsomely coloured, is 48 by 37 inches, and the scale is 1 : 3,500,000, or 55 miles to the inch. The map extends from Tampa, Florida, in the North to the extreme

between the West Indies and Central America and Canada and the United States. There is also a valuable statistical diagram giving the area and population of the British West India Islands, with the number of persons per square mile, based upon the 1921 Census, with additional figures for British Guiana and British Honduras. An inset of Wales provides a useful scale of comparison in size with the countries and islands shown upon the map. Generally, the map has undergone most careful and



A New Map of the West Indies.

THE WEST INDIA COMMITTEE'S new publication is claimed to be more than a map, since it embodies so much valuable information regarding steamship routes, cables, etc., etc., as to make it a work of reference.

Southern boundary of British Guiana in the South, and East to West from Paramaribo to Guatemala. The principal railways, steamer routes (with distances in nautical miles), submarine cables, wireless telegraph stations, and coaling and oil fuel stations are all clearly indicated, and the following islands and groups of islands are shown on the enlarged scale of 1 : 1,500,000 by means of insets : Jamaica, the Windward Islands, the Leeward Islands, Barbados, and Trinidad and Tobago.

An enlarged plan of the Panama Canal is also given on the scale of about three miles to one inch, and a route map showing the various connections

thorough revision. The price of the map will be :

Sheet	7/6	Post free	{ Inland 8/6
Mounted and folded	15/-	"	{ Abroad 9/6
Mounted on cloth and varnished, with rollers			15/6
Carriage free (Inland)	14/-	abroad according to destination.	12/6

MR. J. W. McCONNEL, Chairman of the Fine Cotton Spinners' and Doublers' Association, whose death is recorded, visited the West Indies in 1912. He was a member of The West India Committee.

THE WEST INDIA COMMITTEE.

Annual General Meeting.

Presiding at the annual meeting of The West India Committee, on May 25th, Mr. Robert Rutherford referred at the outset to the loss that the Committee had sustained through the deaths of Sir William Trollope, a member of the Executive, and of Mr. Edgar Tripp, for many years the Committee's Honorary Correspondent in Trinidad. He went on to say that he was glad that the Committee's financial position was satisfactory, although the Hon. Treasurers had not yet been able to secure suitable new premises.

The Chairman then moved the adoption of the report and accounts,* briefly alluding to the various matters dealt with in the former. The motion was seconded by Mr. Cyril Gurney (Deputy Chairman) and carried unanimously.

The re-election of the following twelve members of the Executive Committee, retiring by virtue of Article VI. of the Royal Charter of Incorporation, was moved by Lieut.-Colonel J. H. Collens, V.D., of Trinidad, seconded by Mr. J. M. Du Buisson, and carried. Mr. C. A. Campbell, Mr. S. Cameron, Sir Edward Davson, Lieut.-Colonel Ivan B. Davson, O.B.E., Mr. E. A. de Pass, Mr. Humphry Crum Ewing, Mr. W. Pawcett, B.Sc., Mr. G. Macgregor Frame, Mr. W. A. Griffin, Mr. T. Harrison Hughes, Mr. G. Moody Stuart, and Mr. H. F. Prévité. In moving the resolution, Lieut.-Colonel Collens said that, speaking as a resident in the West Indies, he could state that the efforts of The West India Committee on behalf of those colonies were very greatly appreciated, and in fact the Committee was looked upon there as the mouthpiece of the West Indies in London.

Lieut.-Colonel Davson then moved a vote of thanks to the Chairman, which was seconded by Mr. H. F. Prévité, and carried unanimously. Mr. Rutherford replied, and the proceedings terminated.

The members present included Lieut.-Colonel J. H. Collens, V.D., Lieut.-Colonel Ivan Davson, O.B.E., Mr. J. M. Du Buisson, Mr. Cyril Gurney, Sir William Grey-Wilson, K.C.M.G., K.B.E., Miss Iris Howard, Mr. A. G. Low, Mr. E. Luxmoore Marshall, Dr. G. B. Mason, M.R.C.S., L.R.C.P., Mr. H. P. Prévité, Mr. R. Rutherford, Mr. J. Herbert Scrutton, Mr. F. H. Watson, Rev. James Williams, Mr. Algernon Aspinall, C.M.G. (Secretary), and Captain Gilfred Knight (Assistant Secretary).

LADY GLENCONNER, widow of Lord Glenconner, who died in November, 1920, was married on the 4th June to Viscount Grey of Fallodon. It will be recalled that the bridegroom, so well known as the Secretary of State for Foreign Affairs at the outbreak of the European War, was a member of the Royal Commission which visited the West Indies in 1897.

*The Report and Accounts were published in THE WEST INDIA COMMITTEE CIRCULAR of May 11th, pages 207-212.

SOME COMPANY NOTES.

The Queen's Park Hotel Co., Ltd.

Speaking at the 25th annual general meeting, on April 25th, at Marine Square, Port-of-Spain, the chairman, the Hon. Alexander Fraser, said that for the year ended December 31st last, the gross receipts were the largest in the history of the company. This was very satisfactory, especially as at the previous annual general meeting it was doubtful, on account of the depression in trade generally, if the hotel would have a successful year. While the receipts had been large, however, their expenditure had also been heavy, especially for repairs and renewals, the entire premises having been painted throughout. Other expenditure had also been incurred in putting the properties in first-class condition.

The balance at credit of profit and loss account amounted to \$10,926, and the directors recommended that \$3,648 be applied to writing off depreciation on buildings, plant and machinery and furniture, and the payment of a dividend at the rate of 6 per cent. per annum, absorbing \$5,472, leaving \$1,706 to be carried forward, including provision for income tax.

The company had purchased the property, No. 5, Cummins Lane, with the object of either extending the garage or rebuilding the house for the accommodation of members of the staff presently occupying rooms in the hotel. The working for the first three months of the current year was quite satisfactory, and as there would not be such heavy expenditure for repairs and renewals and laundry as in the past year, the chairman thought the shareholders could look forward to favourable results for 1922. Mr. Fraser paid a tribute to the staff for their loyal work during the past year.

The chairman moved the adoption of the report, which was seconded by Sir Norman Lamont, Bart., and carried unanimously. The retiring directors, Sir Norman Lamont, Bart., and Mr. A. S. Creighton, were re-elected.

British Guiana Loan.

A new British Guiana Government £1,000,000 5½ per cent. loan (being the equivalent of British Guiana dollars 4,800,000 at the fixed rate of \$4.80 to the £) was issued in London on the 31st May, when subscriptions were invited for bearer bonds in denominations of £1,000, £500, £200, and £100, at a price of 99½ per £100 bond, redeemable at par 1942-72. The loan, which is required to meet the cost of sea defence works, railway improvements on the coast, and other public works (some of which have been already carried out), is secured on all the general revenues and assets of the colony, and ranks *pari passu* with all other loans of the colony which are outstanding, whether local or otherwise, subject only to a prior charge for the Civil List, which, as appropriated under Ordinance No. 9 of 1917, is approximately £23,000, and no other charge may be created. The Public Debt of British Guiana amounted on December 31st, 1921, to approximately £1,666,666, since which date a loan of nearly \$2,000,000 has been raised locally. It is gratifying to learn that by 10 a.m. on the day of issue the loan was over-subscribed.

THE HON. CARL DE VERFEUIL was, on the occasion of the King's Birthday, awarded the C.M.G. in recognition of his long services to agriculture in Trinidad and Tobago.

SUBSCRIPTIONS to The West India Committee became renewable on January 1st last.

JOTTINGS FROM MY NOTEBOOK.

BY "AGRONOMIST."

The *Louisiana Planter* says that Professor Tribert, of Germany, has experimented with the products evolved from the combustion of sugar, and found among them a gas which is fatal to typhoid and tubercular germs. The stench of dead meat was also completely removed by it.

* * *

Patterson has claimed that the decolorising power of animal charcoal is due to a nitrogenous base which can be extracted by concentrated sulphuric acid. His work in this direction has been repeated by Mr. P. M. Horton, who has brought his results before the American Chemical Society. Horton concludes that the nitrogenous base described by Patterson has no special decolorising power, and that the decolorising power of animal charcoal is due to other causes.

* * *

The coffee leaf spot disease (*Stilbella flavida*) has been for some time the cause of continuous and heavy losses to the coffee growers of Porto Rico, and a Bulletin (No. 28) has been issued by the Porto Rico Experiment Station on the subject. The degree of control that the station was able to maintain over the disease in very adverse circumstances demonstrated that it could be handled easily by destroying the host plants, and after that, by maintaining a strict quarantine.

* * *

The United States Department of Agriculture has lately developed a process for the rapid production of vinegar from oranges for which there is no market, or which are not fit for sale. The new process takes 24 hours instead of from 60 to 90 days. One ton of oranges will make about 70 gallons of the vinegar, at a manufacturing cost of 10 cents per gallon. Anyone interested should apply for further information to the Citrus By-products Laboratory, U.S. Department of Agriculture, Washington, D.C.

* * *

Attached to the Ewa plantation in Honolulu is a school for the children of the employees of the company owning the estate. Recently an addition has been made to the curriculum of the school in the way of a course of instruction in the first principles of cane agriculture and sugar manufacture, which is conducted by the members of the plantation staff. The *Sugar Central and Planters News* of the Philippines states that the experiment has been so successful that the Hawaiian Department of Agriculture is arranging to extend the idea to other of the Hawaiian schools.

* * *

An interesting lecture has recently been delivered before the Institute of Jamaica by Mr. Robert Stafford Biscoe, on the subject of Rural Jamaica. What Jamaica wants, said Mr. Biscoe, is villages in the place of bush settlements, coupled with good leadership and with co-operation. In these, sanitation should be provided,

good recreation and friendly societies instituted, and as an encouragement to the production of good crops land should be set aside in each village for the purposes of agricultural experiments under the control of the Agricultural Society.

* * *

Experiments have recently been made by Dr. C. A. Browne on the moisture-absorptive power of different sugars and carbohydrates. The substances experimented with were anhydrous dextrose, levulose, rhamnose, sucrose, maltose, lactose, raffinose, starch, cellulose, invert sugar, honey, molasses, malt syrup and commercial glucose. At the end of an hour's exposure to an atmosphere of 80 per cent. humidity at a temperature of 68 deg. F., the substances which showed the greatest absorptive power were starch and cellulose, and the least, dextrose and sucrose.

* * *

The cultivation of tobacco in Java is conducted partly by natives working on their own account, partly by natives under the supervision of European planters, who lease the land from the natives, hiring these for the work, and partly by European companies, who lease large tracts of land from the sultans and princes. Three grades of tobacco are exported, viz., leaf tobacco, grown by estates under European control, "Krossak" or scrubs, a leaf tobacco grown by natives, of low grade, and "Gekerven," or stripped and cut tobacco made up of leaves which will not go into "Krossak" grades to good advantage, but which are of fairly good quality.

* * *

Among the most interesting wild plants observed by Dr. N. L. Britton, the Director-in-Chief of the New York Botanical Garden, during his visit to Trinidad in 1920, was a small tree of the gentian family, growing at the top of the northern slope of Mount Tucuche. The tree is two or three times a man's height, with a few nearly upright branches, and a smooth trunk three or four inches in diameter, near the ground. The leaves are stalked, broad, dark green and leathery, and the flowers are greenish-yellow in colour and bell-shaped, and about an inch long. Dr. Britton describes it as *Chelonanthus Arboreus*, spec. nov., although he states that he does so with some hesitation.

* * *

One of the greatest obstacles in the way of the development of sugar in India is the conservatism of the East Indian agricultural native, who regards anything new as being useless in the light of his countless centuries of agricultural practice. A good illustration of this occurred in British Guiana many years ago, when the Colonial Company started manorial experiments on their estates in that colony. The old-established mind of the East Indian immigrant could not grasp the why and the wherefore of the various, to him meticulous, details and practices essential to their conduct, and summed up the situation by describing them as "dam humbug fields," by which title he invariably alluded to them during the years the fields were carried on.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 247.)

Some of the later drafts for the British West Indies Regiment were certainly not up to the standard of fitness and efficiency reached by the first contingents, and there was some lack of discipline at Taranto when the men were awaiting repatriation in the tedious months immediately following the Armistice. But such disturbances as arose were far less serious than many which occurred among the Canadian and Australian troops whilst they were awaiting demobilisation, and it is generally believed that they would have been obviated if the B.W.I. battalions had been brigaded under a sympathetic officer, as they were in Palestine, instead of a staff which quite failed to understand the men and their ways.

The most fantastic rumours of these demobilisation troubles reached the West Indies, and when the first homeward bound transports entered Kingston Harbour, officers and men were indignant, though not a little amused, when motor launches with their seamen armed to the teeth and their cannonades cleared away and all ready for action patrolled around and about them, as if they expected at least a mutiny. But in spite of evil forebodings, the troops were landed, and demobilisation proceeded without a hitch, the men receiving a warm welcome from their relatives and friends.

Curiously enough, however, it was in the West Indies that the war effort of the local contingents appeared to be least appreciated. The colonies, or most of them, at any rate, having sent the men overseas, seemed to consider that their responsibility ended there, and no organised effort was made to provide for the welfare of the repatriated veterans, or to settle them on the land, and consequently many of the B.W.I.s drifted to Cuba, to which island they were indeed deliberately encouraged to emigrate.

An attempt to deprive the B.W.I.s of the increase of pay given to the English troops alongside which they were serving was frustrated by the activities of the West Indian Contingent Committee; but when the question of pensions came to be dealt with, that body had ceased to exist. The pensions granted seemed quite inadequate, since the cost of living had risen in the West Indies as elsewhere, and it was pathetic to see the eagerness with which a small party of ex-B.W.I. men, each minus one or more limbs, discussed this question after a meeting of the Jamaica Imperial Association, and how grateful they were when one promised to bring it before the notice of the authorities at home. This pledge was redeemed, and eventually the pensions were increased.

But let us return to Mr. Franek. That scurrilous writer does not confine his remarks to the British West Indies Regiment. He is equally rude about the people of Jamaica generally. He declares that they are insolent, lying, slow-witted, inhospitable, arrogant, and goodness knows what else that is bad. There are, indeed, no bounds to

the vituperation which he hurls at these British subjects, and it is not to be wondered at that, according to his own admission, "children ran at the sight" of him.

Reading between the lines of his venomous attack, one suspects that he must have attempted to treat Jamaicans as many of his countrymen serve the blacks in the United States—which will not do—and this suspicion is strengthened when one finds him admitting that he shouted back at some people who were chaffing him, "I am selling something to make niggers white"!

Even if his remarks had been confined to the people of Kingston—and it must be remembered that sea-port towns in no part of the world attract the best elements in the population of a country—they would have had no real justification, and it is absurd for him to suggest that "the capital is unsafe for respecting white women at any hour." In this connection let me quote Sir Sydney Olivier, who in his book "White Capital and Black Labour" writes:—

Now the fact is that in the British West Indies assaults by black or coloured men on white women or children are practically altogether unknown. No apprehension of them whatever troubles society. I say this as an administrator familiar with the judicial statistics, as a resident familiar with all parts of Jamaica and all classes of its population, as the head of a household of women and girls which have frequented the suburbs of Kingston, and lived for weeks and months in remote country districts with neither myself nor any other white man within call. Any resident in Jamaica will tell the same story. A young white woman can walk alone in the hills or to Kingston, in daylight or dark, through populous settlements of exclusively black or coloured folk, without encountering anything but friendly salutation from man or woman. Single ladies may hire a carriage and drive all over the island without trouble or molestation. Offences against women and children come into the courts; but they are not against white women and children. Whatever may be the cause, it is the indisputable fact that Jamaica, or any other West Indian island, is as safe for white women to go about in, if not safer than any European country with which I am acquainted. There have been no savage punishments here, no terrorism, no special laws, no illegal discriminations against the coloured. If, then, there is special ground for fearing assaults of this character by coloured on white in America, it clearly cannot possibly be due to any necessary or special propensity of race.

It is for the reader to decide whether he will accept the statement of a globe-trotting American, or that of a Colonial Administrator of wide experience who, as Colonial Secretary and Governor of Jamaica, was brought into close personal touch with the people of that island.

That there is a certain amount of begging must be conceded; but in this connection it is the thoughtless tourist who is the demoralising element, since he encourages children and cadgers by giving them money. Moreover, he often fails to realise that if you do not behave like a gentleman towards him, the black man becomes aggressive, being quick to appreciate your mental attitude.

Bearing in mind the wretched circumstances in which many of the poorer people live in Kingston, it is astonishing that there is not more crime and

dishonesty than there is. The town has many squalid tenements—often six or eight in a “yard,” towards which the wastrels in the island drift in search of odd jobs or any other easy form of livelihood. But to judge the Jamaican by such as these would be as fair as it would be to judge the Englishman by the “down and out” of the East-end of London.

The average Jamaican is really quite a self-respecting individual until he is tampered with by outside influences. With a tiny house and a provision ground in the country he passes a contented existence, and among all classes of the community there are many able and lovable men.

Unlike many wage-earners elsewhere—in Barbados, for example—the Jamaican has never been compelled by force of circumstances to acquire the habit of regular work. But he does work hard on his provision ground, and has shown in Panama and Cuba that he can also work hard for others when sufficient inducement is offered. Those who would understand his mentality should study what Sir Sydney Olivier has to say about it in his admirable little book, to which reference has already been made.

At Kingston my cruise in that happiest of ships the *Calcutta* was brought to a close, and I reluctantly bade farewell to Sir Alan Everett, the most entertaining of hosts, Captain Percy Noble, “Flags” and Bartimeus and their shipmates, who had made me so welcome that I now felt that I had known them all my life. They were now bound for Bermuda, whose community was no doubt looking forward to their arrival as eagerly as the people of the West Indies were anticipating their return. The officers and ships’ companies of these light cruisers which now patrol the Caribbean are quite a feature of social life in the West Indies, bringing with them as they do new ideas, and adding a spice of cheeriness to the social functions which invariably mark their arrival at any given port. But they also serve a useful purpose, not only by showing the flag—the importance of which cannot be exaggerated—but by safeguarding the law-abiding residents in the islands from those periodical disturbances which occasionally arise in even the best regulated communities.

Writing of these cruisers reminds me of an occasion in 1905—how long ago it now seems!—when a deputation of the Executive of The West India Committee waited upon Mr. Arthur Balfour, the then Prime Minister, at Downing Street. It was stipulated that the interview should be private, and this injunction was observed so literally that an air of impenetrable mystery surrounded the meeting. The Unionist ministry was tottering to its fall, and the doorstep of No. 10 was besieged by Pressmen eager to know what the object was of the visit of so numerous a deputation. The members of the Committee, however, resolutely declining to disclose their identity, many strange rumours spread through London, the contents bills of the evening papers speaking of a “Mysterious Deputation to the Premier,” while one writer gave currency to the view that the deputation had waited on the Prime Minister to invite him to open a new green on the Tooting Golf Links, and another suggested that it

had submitted patterns for wall-paper for Mr. Balfour’s private residence. What they really discussed was the question of the withdrawal of the troops from the West Indies—the paramount importance of protecting these colonies. It was as the outcome of that meeting that certain of His Majesty’s ships have patrolled the Caribbean, ready at a moment’s notice to answer any S.O.S. that may reach them from the islands, and to support the local police in maintaining law and order. That they have proved a stabilising influence is beyond any possible doubt.

(To be continued.)

OBITUARY.

MR. SEPTIME HUGHES CLAUZEL.

We regret to learn that Mr. Septime Hughes Clauzel died in St. Lucia on the 17th April, at the age of 83.

A member of The West India Committee for nearly twenty years, Mr. Clauzel came from a French planting and military stock, his father, Donatius Clauzel, being a descendant of Field-Marshal Bertrand Clauzel, who figured so prominently in the Napoleonic Wars. He began his planting career at a very early age, and at 18 he was the manager of the Monplaisant (now Invergoil), which then boasted of a large sugar plantation and muscovado works. Later he moved to Anse Mahaut, which he controlled for a short period, after which he took charge of the Canaries estate, then the property of the late Hon. Emmanuel Du Bonlay. From that time onwards his fame as a sugar planter was widely recognised; he was transferred to the Windward side of the island, where he laboured for 18 years, and successfully managed the estates owned by Mr. Du Bonlay in Dennery, namely, Anse Caout, Resource, Richford, and La Caye. In 1884 Mr. Du Bonlay formed a syndicate which acquired the Roseau estates and factory, to which Mr. Clauzel was again transferred, and after a long service of 34 years with the St. Lucia Usines and Estates Co., Ltd., he retired on a pension in October, 1919.

Mr. Clauzel’s experience and administration as a sugar planter and manufacturer were second to none in the island. His zeal and activity were remarkable for one so old, and during his management of the Dennery estates and factory he would take long rides on horseback from Roseau to Dennery and back again, and this at 79. At 82 he inspected the Cul de Sac plantations for the Cul de Sac Co., Ltd., for nearly six months. Everywhere Mr. Clauzel served, he succeeded in obtaining a greater output of sugar than any of his predecessors. In 1909 the Roseau factory, which he then managed, turned out 2,300 tons of 1st jet sugar, thus exceeding, it is said, the combined output of any other two factories in the colony in that year.

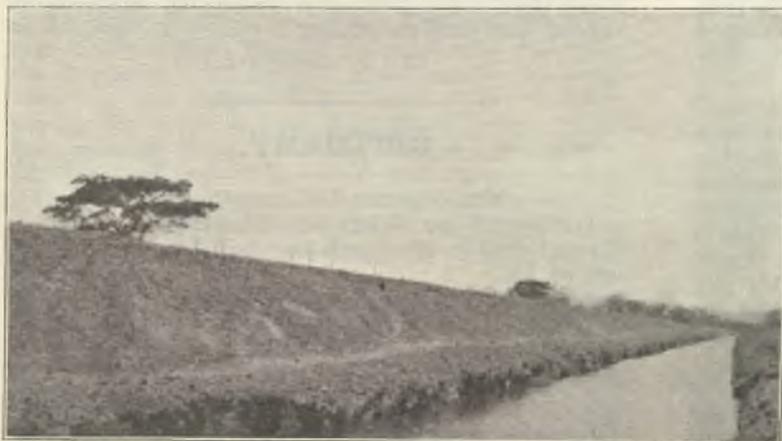
Of a hospitable and genial disposition, he was highly esteemed by all. His popularity with the labourers who toiled under him, as well as others, was reflected in the frequent visits he received during his last hours, and in the large concourse, which represented every section of the community, that followed him to the grave. In domestic life the deceased was a most affable husband and affectionate father. He leaves a daughter and two sons, one of whom is at present manager of Cul de Sac, to whom he has bequeathed a large share of his real estate.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Antigua's Cotton Regulations.

A duty of five shillings on every passenger ticket for voyages outside the colony is imposed by Ordinance No. 4 of this year.—To protect the cotton industry from the ravages of the pink boll-worm, Ordinance



The Caroni Reclamation.

This great dam has been constructed by the shovel depicted in the second illustration on this page.

nance No. 7 enacts that all cotton plants must be completely burnt before the first day of the close season, during which time no cotton seed is to be sown. The period of the close season may be fixed for different localities each year by the Governor, who is also empowered to appoint inspectors with drastic powers to enforce the provisions of the Ordinance.—The Leeward Islands' wedding gift to Princess Mary took the form of a beautifully mounted address, an illustration of which, from a photograph taken by the Rev. P. K. P. Bolton, will appear in next issue. Mr. Bolton has been appointed Rector of St. George's, Dominica.

Bahamas Governor's Salary.

The question of the Governor's salary was debated in the House of Assembly on May 16th. A committee to whom the matter had been referred reported that "from a sentimental and Imperial point of view" it was desirable that the colony should not pay the whole salary, although they could at present afford to do so. A Bill increasing the colony's portion to £1,500 a year (making, with the amounts paid from Imperial sources, a total of £2,600) was passed. The Legislative Council has sanctioned the Vote of Indemnity for £304,500 for hotel accommodation, and passed the Bill authorising the raising of a loan to meet the cost of erection if necessary.—The Commission of Enquiry into the conduct of Major Turner, the Police Commandant, and Mr. Yates, the Magistrate, have now reported, and the report has been transmitted to the Secretary of State.—A Bahamas branch of the League of Nations Union has been started, the

Hon. Willoughby Bullock being elected the first Chairman, and Mrs. Patrick Hare the Hon. Secretary.

Hon. H. E. W. Grant, C.M.G., the Colonial Secretary, returned to Nassau on May 12th after spending six months leave in England.

Barbados Crop Conditions.

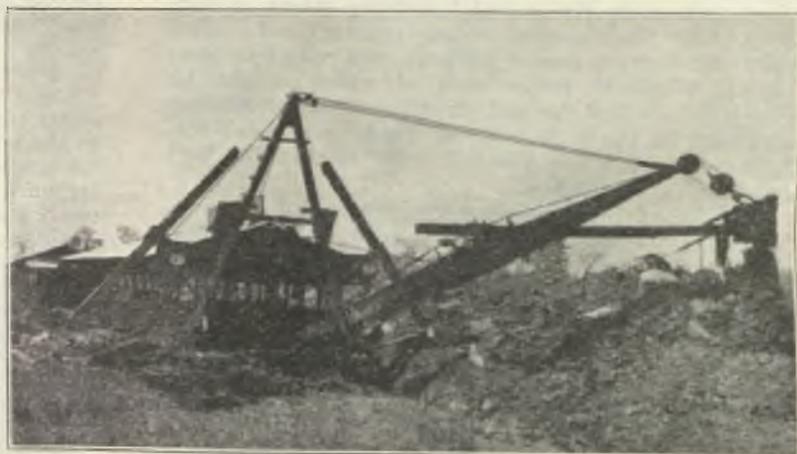
A dry fortnight is recorded in the *Advocate* of May 9th, which states that the young crop continues healthy and vigorous, and the ratoons are also vigorous and bunching thickly. In St. Philip's and Christ Church reaping is nearly over. In the hill parishes and red soils the tonnage per acre is surpassing expectations, and the yield is regarded as satisfactory. The improved outlook for cotton has led to a larger area being planted in St. Philip than in recent years. Barbados is one of the few cotton-growing areas free from the boll-worm.—Mr. Rickman, the Income Tax expert, arrived in the Island on May 3rd.

Retrenchment in Honduras.

It is announced in the *Official Gazette* that New Orleans and Swan Island stations discontinued sending Press news after 30th April.—The *Belize Independent* of May 10th anticipated that the Retrenchment Committee, to correspond presumably to the Geddes Committee of the home country, would consist of Hon. C. Francis, Hon. A. R. Usher, M.B.E., Hon. G. E. Grabham, Mr. F. W. Biddle, Mr. F. R. Drayton, and Mr. P. Stanley Woods.

Dominica's Acting Administrator.

The Governor of the Leeward Islands by Order in Council has directed an enquiry before the Executive Council of the Presidency into certain charges against Mr. Peter Noble, Colonial Engineer and Surveyor-General.—Mr. R. Nosworthy, Island Treasurer of



The Shovel "Chancellor."

This dredge or shovel is shown hacking its way through a hard patch of land at Caroni, Trinidad, and building up the East Dam which will help to reclaim the Caroni Swamp.

Jamaica, has been appointed Acting Administrator of Dominica for nine months.

The Panama Disease in Jamaica.

At a large gathering of banana proprietors, planters and cultivators at Port Morant, on the 11th May, to

consider the question of the Panama disease, Hon. S. S. Stedman advocated the establishment of an Advisory Board to work with the Agricultural Department in an effort to combat the pest.—The obituary list includes the name of Captain Alexander Bonitto, of Battersea Pen, Mandeville, who died on May 10th. For many years in the Royal Mail Service, Captain Bonitto was during the South African war in charge of a big cable ship, the *Duplex*.

Mr. Brooks leaves St. Lucia.

Mr. T. G. Westall, Deputy-Chairman of the Agricultural and Commercial Society, presiding at a meeting of that body on the 24th April, offered the Society's congratulations to Mr. Archibald J. Brooks, the Agricultural Superintendent, on the occasion of his promotion to Gambia, at the same time expressing the great regret felt by all at his approaching departure from St. Lucia. Mr. Westall stated that it was principally owing to Mr. Brooks' encouragement that the island's lime industry was in such a flourishing state to-day, and as a result of the Re-union Scheme, which had been fathered by him, the Choiseul District was to-day the most independent and flourishing in the colony. Mr. Brooks was also the recipient on the 21st April of an address from Mr. H. G. Bellzair, Head Teacher of the Soufriere Boys' Juvenile School, on behalf of the Primary School Teachers of St. Lucia.

Trinidad Income Tax.

Mr. William Nowell has been appointed to act as Director of Agriculture during the absence on leave of Mr. W. G. Freeman.—The *Royal Gazette* of May 4th sets forth the regulations made by the Governor under the Income Tax Ordinance No. 8 of 1922, including the form of return to be made in the present year of assessment. Where tax is paid in respect of the same source of income both in the colony and in the United Kingdom or elsewhere, full information should be applied for from the Commission, who will supply the necessary certificates to obtain relief.—A notice issued by the Colonial Secretary of Trinidad on March 18th sets forth certain amendments to the Customs Tariff by resolution of the Legislative Council, including one to the duty on cotton piece goods, which now reads as follows:—

	British preferential.	General Tariff.
Not exceeding in cost 6d. per yard	free	10% ad val.
Exceeding 6d. per yard	10% ad val.	20% ad val.

To meet the cost of the reclamation of the Laventille and Caroni swamps, photographs of the work on which appear on the opposite page, a new £200,000 loan has been issued in the form of 6 per cent. debentures. Subscriptions have come in rapidly, £70,000 being applied for on the day of issue.

JAMAICA GOVERNORS.

BY FRANK CUNDALL.

X.—Christopher, Duke of Albemarle.

(Continued from page 251.)

In July, 1688, the Speaker of the Assembly (Elletson) made a lengthy address to the Governor (Albemarle), reviewing the history of the Colony, in which he stated all things which he thought would be acceptable to his patron Albemarle, and illustrating thereby the baneful effect which party ani-



The Duchess of Albemarle.

mosities had had upon the young colony. He said:—

"In the government of this island under the Lord Vaughan, the planter with pleasure and satisfaction received the comfortable enjoyment of the increase of his own labours, the merchant received his hoped-for suitable returns of his adventure, and trade and justice had their true current, as his then Excellency, at his going off and parting with this Government, plainly intimated, by asking the inhabitants 'Whose ox or whose ass had he taken?'

"Sir Henry Morgan then succeeded him in this government; who, with perfect loyalty to his sovereign, justice to his Majesty's subjects, care and diligence for the general good of this his Majesty's island, and kind and courteous behaviour even to the worst of his enemies, though many and malicious, continued the same until the arrival of his then Excellency, the late Earl of Carlisle, into whose hands, with all duty, obedience, and service, Sir Henry Morgan delivered the government.

"In his lordship's government this island lay under a heavy but just character of an obstinate and wilful people, for that his then Majesty's service was desig- nedly and truly maliciously opposed, by those who



Medal struck in honour of the "Adventure at the Wreck," referred to in last issue (page 251). On the obverse is a portrait of the Duke of Albemarle.

have since endeavoured, by all ways and means, *per fas et nefas*, to persuade and satisfy the King and Court of their loyalty and great abilities for his service; whereas it is very well by experience known here that their hearts were hollow and loyalty lame, but both painted to colour the design of particular interest, in opposition to the public and common good of this island, and for executing a revengeful satisfaction upon the truly innocent; yet his Excellency's government was both profitable and pleasant, the island flourished, and the inhabitants thereof sat each under his own vine, in peace and quietness. His Excellency, like a good man and better Christian, continued daily doing good to the worst of his enemies, even those that afterwards most despitely used and maliciously prosecuted him, being implacable and irreconcilable; yet did flatter with their lips, although the poison of adders lay under their tongues.

"At his lordship's return to London the government again devolved upon Sir Henry Morgan, whose inclination still carried him on vigorously to his Majesty's service and this island's interest; his study and care was that there might be no murmuring, no complaining in our streets, no man in his property injured, or of his liberty restrained; his dispensations of favour and kindness were great and many, even to those who, true hornet-like, lay buzzing about him during his government, but immediately upon the alteration stung him even unto death.

"After his two years' government the late Sir Thomas Lynch arrived, into whose hands Sir Henry Morgan, with all duty and readiness, again delivered the government, who found this island in a happy and good condition; all men at least appeared as of one house, of one heart, and of one mind; no companies but one, the planter in a good condition, merchants thronging hither, trade brisk, and current money plenty, and the island generally growing strong by new comers and new settlements.

"It was then indeed the golden age; but as was sweet, so it proved short; for that method and current of affairs in Sir Henry Morgan's government were quickly changed, and several of those persons, who had the honour to bear their parts in the harmonious concert of his government, grew presently pale, peevish, envious, and angry, as if they had been truly weary of well doing.

"Sir Thomas Lynch was scarce warm in his chair of state before the goats were divided from the sheep, and esteemed the only creatures; before the island was upon the decay, and brought into such a hectic as it still languisheth, and now, even now, groans under the pains of death; before that unity and good correspondence was maliciously divided into Lynch's pretending, and Morgan's truly loyal party; before the planter that could then answer his credit grew poor; before the general produce of this island lay upon the planter's hands, and would yield little or no money; before there was a perfect stop of merchants coming hither, and a full stop to the beginning of any new settlement; before trade was entirely engrossed into the hands of six or seven men; before there was no gold, no silver to be had, and consequently the planter's credit left and undone; before few or no negroes were to be bought by any planter (unless a creature) but refuse, and them at the price of 22*l.* per head; before the island grew weak and feeble by the departure of all our sloops and seamen for want of employment, two Spanish ships and their seamen, with the convoy and trade of one of his Majesty's frigates, engrossing the whole Spanish trade of this island; in a word, before all that had been theretofore done for the public and common good was turned into private design and par-

ticular interest, in prejudice of the island's general advantage, and right to be done to all honest men; *sic volo, sic jubeo*, being the sole rule of management, and the only maxim of state: But the name of the wicked shall rot.

"By your grace's knowledge of our circumstances at your arrival, which were no trade, no money, poor and miserable, it will, without much consideration, appear plain to your grace what great alterations Hender Molesworth, esquire, made in his three years' government, and whether he did not truly tread the track of his patron, Sir Thomas Lynch."

Sloane, who from the first doubted whether the Duke, in his then poor state of health, created by high living, could stand the heat of Jamaica, tells us that the Duke had given up all desire for field sports and had become fond of a sedentary life, and was accustomed to sitting up late and often making merry with his friends. In spite of the efforts of his medical advisers, somewhat drastic at times, of which the most sensible seems to have been a change of air to Liguanea, ordered by Sloane and Dr. Trapham, whom he consulted "as one who knew the country diseases, having lived there several years," the Duke died on October 6th, 1688, aged thirty-five years. The news of his death, sent by special sloop, reached England three weeks after the landing of the Prince of Orange. The laws which he had made were cancelled, and Molesworth, who was in England, was knighted, and appointed Governor. The government of the colony for the moment devolved upon Sir Francis Watson, President, and the rest of the Council.

His body was preserved in pitch and in a series of coffins to be sent home for interment, but his bowels were buried beneath the altar of the church at Spanish-Town.

While in Jamaica, the Duchess, not wishing to be forgotten at court, sent home fruits to the Queen and Maids of Honour. On the Duke's death, owing to political differences, the island was in a state of unrest. The Duchess was at King's House, with gold and silver ingots from the wreck, but with little protection, Captain Monek having taken the Duke's yacht to Boston for repairs. But the Assembly rallied to the support of the "disconsolate Princess," and passed a bill in her favour, which, however, is not recorded in any of the editions of the law. The militia protected her when she removed for change of air to Guanabou. But she had but a sad home-going. After six months' delay—on "March 8th," says the log-book of the *Assistance*, "the Duke's corpse was put on board the yacht, the next morning mourning colours hoisted up."

On Friday, March 15th, "all preparations were completed. In the darkness of night the Duchess was escorted on board the frigate by Dr. Hans Sloane, who was now established as sole guardian and protector of the widowed lady. With her came her treasure, her plate, her five hundred tons of furnishings, and her numerous retinue of servants.

"One last moment of anguish now confronted the Duchess. At the instant of sailing Mr. Lynch came aboard the frigate, privately . . . without any ticket or giving security according to law and custom, and no attorney to answer the demands of the French about some Indians whom Lynch had seized and sold as slaves. . . . My Lady Duchess was much concerned

that Mr. Lynch should go on board a frigate wherein she thought to have sailed with My Lord's body!"

In spite of the tears of the Duchess and the commands of the Acting Governor, Captain Wright, in haste to depart, and disquieted at the thought of what he might find in England, abruptly replied to both that he would as soon obey Lynch's order as the Acting Governor's. And sail Lynch did, in open defiance of the colonial authorities. Sir Francis Watson's comment was: "Mr. Lynch could not be so acceptable to sail home in the same ship with ye Duchess, having been the occasion of much disquiet and trouble to ye Duke whilst he lived." Next day the frigate set sail, accompanied by the yacht and a convoy of thirteen merchantmen. They knew that James II. had fled, but they did not know who reigned in England. Captain Wright, an adherent of the Stuarts, intimated that if he found the King in exile he would make all speed to France, and place himself and his frigate at the disposal of the rightful King. The frightened Duchess besought him to reconsider, for she did not fancy the idea of landing in a foreign country with all her chattels and her dead husband. The captain remained immovable. "On hearing this assurance," writes Dr. Sloane, "which seemed to open to her the prospect . . . of being carried to France, the Duchess resolved on desperate measures." Nothing less than to change her ship, taking all her wealth with her. She, with Dr. Sloane and her whole suite, left the *Assistance* in mid-ocean, and re-embarked on the Duke's yacht, only to transfer later, in the midst of a thunder-storm, to the *Generous Hannah*, one of the convoy of merchantmen.

They landed, on May 30th, at Plymouth, in a heavy rain; the Duchess, her dead Duke, her plate and jewels and treasure, her servants, and all their gear. In the harbour, with astonishment, they beheld the *Assistance* riding at anchor. Captain Wright had had leisure on his voyage to consider his future prospects. He prudently had sailed into Plymouth, and had sworn fealty to King William. The Duke left the bulk of his property to a certain Colonel Thomas Monck, who is thought to have been his natural elder brother.

The Duchess was not in good health, either in mind or body, on her return from Jamaica. She, only thirty-six years of age, determined to wed, but to give her hand to none but a sovereign prince. Ralph Montagu, Earl of Montague (who became Duke of Montague in 1705), courted her for her wealth, it is said, as Emperor of China, and she became his wife in September, 1692.

He died in 1709, and in the same year she—who had been very eccentric for years—was certified as insane, the Duke of Newcastle, her father, and the Earls of Thanet (her brother-in-law) and Sunderland being appointed her guardians. She died at Newcastle House in August, 1734.

In the History Gallery of the Institute of Jamaica are portraits of both Duke and Duchess. The former is a photographic copy of an engraving by Wm. Sherwin, the celebrated engraver, who married Albemarle's cousin and heir, Elizabeth Pride, and thus secured an introduction by Albemarle to Prince Rupert, from whom he learnt the new art

of mezzotinting. It is not included in Miss Ward's list of portraits of the Duke. The latter is a photographic copy of a miniature of the Duchess, by Lawrence Crosse, in the possession of the Duke of Portland, at Welbeck Abbey. It was probably painted in 1680, in which year the Duke sat to Crosse for his portrait.

WEST INDIES AT WESTMINSTER.

Admiralty Contracts.

Mr. Amery (Parliamentary Secretary to the Admiralty), informed Lieut.-Colonel Hilder, on the 30th May, that in placing orders for Navy supplies the Admiralty practice was to give a preference to products of the Empire, even when such action involved payment of a somewhat higher price.

Home-Grown Beet and the Colonies.

Answering Sir John Gannon, on the 25th May, Sir Robert Horne (Chancellor of the Exchequer) said that he was unaware of any representations having been addressed to him from any sugar-producing parts of the Empire against the waiving of an Excise Duty on sugar produced in this country.

The High Duties on Spirits.

Mr. Hilton Young (Financial Secretary to the Treasury) on the 26th May agreed with Viscount Elveden that the duty of 72s. 6d. per gallon on spirits yielded last year £7,500,000 less than was anticipated, owing to decreased consumption, but he could not accept the suggestion that a reduction in the rate of duty would necessarily increase the revenue from spirits.

The Sugar Refiners' Output.

Mr. Baldwin (President of the Board of Trade) informed Mr. G. Roberts, on the 31st May, that the total quantities of sugar imported into the United Kingdom in the years specified, and the quantities of unrefined sugar delivered for refining in bonded factories, were as follows:—

	Imported. Cwts.	Refined in bond. Cwts.
1902	31,586,909	*
1904	32,289,000	12,500,000
1914	39,860,809	16,608,947
1921	25,660,011	18,227,197

[* The system of bonded refineries had not been established in 1902.]

Certificates of Origin and Value.

Mr. Wood informed Lieut.-Colonel James, on the 29th May, that the Governments of the Commonwealth of Australia, New Zealand, the Union of South Africa, and Newfoundland had decided to adopt the combined certificate of origin and value recommended by the Imperial Customs Conference in connection with British preferential tariffs. Of the Colonies which did not possess responsible Government it had been decided to adopt the certificate in Bahamas, Barbados, Trinidad, Grenada, St. Lucia, St. Vincent, British Honduras, Jamaica, Mauritius, Seychelles, and Fiji; and the territories of the South African High Commission would follow the Union of South Africa. He was waiting to hear from the other Colonies and Protectorates, which had been invited to adopt the certificate.

The Jamaica Oil Fuel Depot.

In the debate on the Navy Estimates on the 23rd May, Lieut.-Commander Kenworthy reverted to the question of the oil fuel depot in Jamaica, for which there is a vote of £60,000. He argued that in peace time we did not need an oil fuel depot at Jamaica. In war time, if we were allied with the United States, we should still not need it, because we could get all the oil we wanted from Key West, or others of the magnificent American naval bases; whilst if we were engaged in a war in which the United States was hostile to us, we should not be able to use Jamaica, because it was so far inside the Gulf of Mexico that, without such a preponderating increase of force as we were never likely to get, we should not be able to keep up our communications with Jamaica. Sir A. Shirley Benn pointed out that, according to Admiral Mahan, Jamaica was the great strategic point in the Caribbean Sea, and hoped that our ships that were going to be propelled by oil would always be able to go there and replenish. The vote was carried.

The Financing of British Guiana.

Mr. Churchill informed Colonel Wedgwood, on the 25th May, that the Government of British Guiana had recently called locally for tenders for a loan for 50 years of £1,000,000 at 5½ per cent., and had accepted a tender at 6½. This loan was not guaranteed by His Majesty's Government. British Guiana was not a Crown Colony, and accordingly the question as to whether the Colonial Office considered themselves bound by a statement of the late Rt. Hon. Joseph Chamberlain to the effect that, guarantee or no, this country could not allow any Crown Colony to default in interest on their loans, did not arise. British Guiana was a Colony which had a legislature responsible for the proper control of its own affairs, and therefore stood in a slightly different position to the other Colonies we had control over or had to deal with. Although there was no sort of implied guarantee resting upon this country for any loans British Guiana might raise, he hoped, nevertheless, that this Colony, which was in a backward state, would get support, and that the money would be raised to help the Colony to help itself, but this would not be aided by its credit being unduly cried down by the hon. and gallant gentleman.

The Sugar Duties.

Mr. Young supplied to Captain W. Bem, on the 20th May, the following statement showing the quantities of imported refined and unrefined sugar retained for home consumption in the United Kingdom and duty paid during the year 1921 and the first quarter of 1922:—

Description.	Calendar Year, 1921.		January to March, 1922.	
	At Full Rate. Quantity. Cwts.	At Preferential Rate. Amount of Duty. £	At Full Rate. Quantity. Cwts.	At Preferential Rate. Amount of Duty. £
Imported, refined	9,019,413	11,367,337	2,973,308	392,469
Imported, unrefined	671,947	816,741	1,767,389	1,633,353
Retained in bond from imported material	10,532,957	13,022,766	5,218,909	5,558,652
Total entered	20,224,317	25,206,844	7,268,174	7,584,474
Defect drawbacks	150,990	192,604	85,524	91,428
Net retained for home consumption	20,073,327	25,014,240	7,268,174	7,493,046
January to March, 1922.				
Imported, refined	1,699,182	2,179,730	18,303	19,788
Imported, unrefined	271,790	221,820	880,678	556,880
Retained in bond from imported material	3,128,265	3,366,001	1,376,501	1,489,175
Total entered	5,099,237	6,267,551	1,945,482	2,035,413
Defect drawbacks	42,324	64,321	12,996	13,261
Net retained for home consumption	5,056,913	6,203,230	1,932,486	2,022,152

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

The State of British Guiana.

Dear Sir,—I have read with interest your report on the Hon. Cecil Clementi's lecture on "Guiana's Colonisation." While I much appreciate Mr. Clementi's efforts in this subject, I cannot quite agree with all his views. I went out to Demerara in 1868, when "Sugar was King," and retired in 1904, and from 1868 until now not much that has taken place or been tried for the colony has escaped my notice and interest. One matter of the utmost importance to the colony I do not see referred to in your report of Mr. Clementi's speech, viz., the drainage and irrigation of the villages and front lands of the colony. He says, "The experience of a hundred years proved that we could not hope to get a mature increment from a population settled entirely on the coast," which is quite true under the present conditions of life in the swamped villages and land during the rainy season and parched state of the lands during the dry seasons. The people are unhealthy; the children get fever, etc., and many of them die before they reach maturity. Any effort to cultivate the land is hopeless; the crops are either drowned out or scorched up. I hold that the villages on the coast lands are the natural nurseries for a population suited to the needs of the colony. That is proved by most of those who escape death during their infancy and youth. Had proper drainage and irrigation been carried out by the Government years ago, the colony would now be prospering with a full supply of home-grown population, which no importations will ever supply. Drainage and irrigation is a big and costly proposition, and must be undertaken by the Government. The opening up of the country by railways, etc., to the hinter and higher lands is a scheme beyond the present condition of the colony, and not a job for imported labour and occupation; but once get a healthy home-grown population, and the country will, as it were, open up of itself. Imported Indians are good and needed for the sugar estates, and sugar is still the principal industry, giving most labour, circulating most money, and acting as "milk cow" to most other smaller industries. Few other industries that have been led from sugar have survived. Rice and coconuts have done the best; gold, diamonds, and other mineral industries only impoverish the country, take labour from sugar, and leave nothing behind.

As to the past or present constitution of the colony, I am not sure that it is of so much importance as Mr. Clementi makes out—at least, not in the way that he suggests. I had a good deal to do with the reform of the constitution in 1891. The College of Kiezers was a sore point with the people. The reform pleased them, and I don't think did any harm. The Government still get as much and more money than the impoverished state of the colony can afford, much of it going into unproductive schemes, and a vast and costly complication of Government Acts and big staffs of Government officers have been and still are being created, often hampering the free action and industry of a young colony. Perhaps a Crown Colony Government would suit as well as any; but the people would not have it. The frequent changing of Governors works against the prosperity of the place, every newcomer putting forward new schemes, knowing actually nothing about the colony's needs.

Yours faithfully,

The Maples, Redhill, Surrey.
May 26th, 1922.

D. GIBSON.

WEST INDIAN PASSENGER LIST.
Elders & Fyfe, Ltd.

Sailings to Jamaica from Avonmouth, in *a.s. Motagua*,
May 30th:—
Miss M. F. Dyer Lieut. H. W. Salter Mr. P. B. H. Wrightson
Lieut. J. W. Toome

Sailings to Jamaica, from Avonmouth, in *a.s. Bayano*,
June 5th:—
Mr. & Mrs. W. Down Rev. H. George Lieut. E. J. Richardson
Mr. & Mrs. Caldwell Mr. E. L. V. Hill Mrs. A. V. Hatley
Miss Caldwell Mrs. & Miss Knollys Watson
Mr. C. S. Farquharson Mr. F. T. Landale

Home arrivals from Jamaica, in *R.M.S. Bayano*,
Avonmouth, May 28th:—

Mr. T. Alexander Mr. L. C. Harris Miss M. Moncrieff
Mrs. H. Adams Mr. & Mrs. A. M. Henderson Mrs. B. Monteleagre
Mr. Justo K. Arosemena Henderson Mrs. & Miss
Mr. Fabio Arosemena Mr. & Mrs. Wm. Hind Nightingale
Mr. & Mrs. A. Andre Mr. G. Halverson Mr. & Mrs. R. T. Ogeun
Mr. & Mrs. J. H. Mrs. M. C. de Hermandes Mr. & Mrs. J. B.
Bookfield Miss G. P. Joynt Powell & fam.
Mrs. R. A. Bush Rev. & Mrs. G. H. Leader Mr. & Mrs. A. Pepper
Mr. & Mrs. E. W. C.M.G. Miss M. Read
Hon. P. C. Cork Mr. G. F. Lings Mr. R. Rivera
Mr. & Mrs. F. A. Cory Mrs. C. Lohban Mr. & Mrs. J. A. Scott
Mrs. L. Cartwright Mr. & Mrs. E. Levy Miss E. A. H. Simmons
& fam. Mr. R. Looney Mr. & Mrs. E. T. Sanyagar
Misses Carranza (2) Mr. J. B. Luing Mr. & Mrs. L. Belmontayer
Mr. & Mrs. F. Cox Mrs. E. F. Madden Mrs. M. Thelwall & Son
Mr. A. Hilton Mr. & Mrs. J. J. G. Capt. & Mrs. J. H.
Mr. A. N. Davidson Male & fam. Thompson
Mr. & Mrs. Beauséjour Miss M. I. Miles Miss M. V. Thompson
Misses Fielding (2) Miss J. L. Morrison Mr. & Mrs. J. Wade
Rev. & Mrs. W. Graham Mr. A. Munro Mr. & Mrs. W.
Mc. Wm. Gawn Mrs. A. McLelland Wrightson
Mr. G. A. Hart Mrs. & Miss Mills Miss D. Watson

Home arrivals from Jamaica, in *s.s. Changinola*, Avon-
mouth, June 5th:—

Dr. J. A. Allwood Dr. & Mrs. C. A. Gray Dr. & Mrs. P. C. D.
Mr. George Bennett Mr. T. M. Khouri Pascoe
Mrs. L. B. Cameron Miss E. Legentil The Misses Pascoe (2)
Mr. F. A. Chandler Mr. & Mrs. J. L. Mr. & Mrs. C. G.
Rev. J. Curry MacIntyre Shoeter
Mr. & Mrs. O. A. Mr. & Mrs. H. W. Mrs. K. F. Snow
Deigado Pedder Lady Walseley
Mr. J. Foard Mr. & Mrs. J. Penrice Mr. W. R. Walseley
Mrs. J. Gibb Mr. F. C. Walcott

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in *s.s. Commodore*,
May 28th:—

Mr. Pedro Lagaldera Miss V. Wadam Mr. & Mrs. Walker
Miss K. M. Rourike Mr. Walcott

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in *a.s. Crynsen*,
May 27th:—

Mr. G. C. Barville Mr. H. May Mr. & Mrs. Thornton
Mr. & Mrs. L. C. Mr. W. W. Pearce Miss M. H. N.
Burt & fam. Mr. V. F. Pridoux Thornton
Mr. F. Espindula Miss A. D. Paterson Miss W. Vidal
Mr. G. A. Gibbs Miss C. Santana Mr. W. G. Weeks
Mrs. I. Guzman & Sons

Home arrivals from West Indies, in *s.s. Ingoma*, London,
June 1st:—

FROM BARBADOS.

Mrs. E. Alexander Mr. J. S. Clarke Mr. & Mrs. W. R.
Miss J. Alexander Mrs. E. J. Da Costa Perrier
Miss K. Ambridge Miss D. G. Gaskel Mrs. S. Robertson
Miss E. E. Goveley Miss E. K. Smith
Major F. Beecher Miss E. Grassum Miss K. Smith (maid)
Captain & Mrs. Mrs. Kirke Miss G. Smith
Bawring & fam. Mrs. D. Newell Lieut. C. Swinley
Miss L. Bosill Sir Charles & Lady Miss D. White
Miss E. S. Briggs O'Brien Mrs. Walter
Mrs. A. J. Burton Misses O'Brien (2) Miss Willis
Miss R. Burton Mr. J. W. Pearl Mr. & Mrs. G.
Miss P. S. Burton Yearwood

FROM DEMERARA.

Mr. W. K. Barkas Mrs. M. E. Gomez Mr. & Mrs. A. Shields
Mrs. D. Braxington Mr. O. T. Henderson Mr. & Mrs. Jas. Smith
Mr. T. H. Dagleish Mrs. A. Mitchell Mr. G. J. Smith & fam.
Mrs. T. H. Dagleish Mrs. K. Murray Mrs. A. M. Stokeland
& family Mrs. N. Rowland and family
Mr. K. G. G. Denny Mr. & Mrs. W. M. E. Mrs. R. Toome
Mrs. Douglas & family Shields Mrs. A. M. B. White

FROM TRINIDAD.

Mr. H. Akton Mrs. Hall & fam.
Lady Anderson Mrs. A. Horne Mr. & Mrs. C.
Mrs. Arbuckle Hon. Popham Lobb Mortimer & fam.
Mr. & Mrs. G. Brown Dr. & Mrs. Macfarlane My. C. M. Prockers
& fam. Mr. & Mrs. McDonald Miss N. Reid
Miss Buck Mrs. & Mrs. McDonald & child Miss M. Slyne
Mr. R. Duff Mrs. McBride & fam. Lady Lucie Smith
Mr. J. Grant Miss Taylor
Mrs. J. A. Young

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates have been kindly supplied to The West India Committee by the respective Governments.

	Anti- gua. To Mar. 31	Bar- bados. To Mar. 31	British Guiana To Mar. 31	British Hondur- as. To April 30	Down- nia To April 30	Grenada. To Mar. 31	Jamaica. To April 29	Mont- serrat. To April 30	St. Lucia. To April 30	St. Kitts Nevis. To Mar. 31	St. Vincent. To Dec. 31	Trinidad To Mar. 31
Arrowroot
Asphalt
Balsam
Bananas	174,422	...	...	...	...	...	...	...	2,294,839	25,523
Bauxite	118,918	1,359	...	3,013,212	...	1,219	...	238	...
Bitters
Cacao
Cassava Starch	82,049	2,544,244	3,071,712	452	1,046,590	...	130,644	18,477,491
Coco-nuts	838,084	1,547,075	73,137	...	8,120,950	...	29,719	126,300	152,064	4,718,409
Coffee	320,161	...	...	...	2,299,092	...	...	...	12,303	50
Coupa	20,825	36,316	...	2,700	66,256	...	35,547	...	33,835	1,281,480
Cotton, M. Galante
Cotton, Sea Island
Cotton Seed	7,750	34,160	...	...	...	...	...	299,159	...	30,120	493,026	...
Diamonds	239,960	...	...	11,634	...
Dyewoods	24,028	...	...	...	...	...	...	...	...	...
Ginger
Gold	2,624	...	...	...	...	...	...	...	...
Ground Nuts
Honey
Lime Juice (raw)	15,879	...	499,942	...	12,992	...	312,643	...
" " (concd.)	44,103	...	...	16,689	2	...	2,750	...
" " oil	39,887	...	...	400	11,444	...	340	...
Lime (citrate of)	214,256	...	...	...	298	...	...	...
Logwood	3,963	...	...	...	...	...	...	...	...	...
Lumber	525	...	...	...	...	...	...	...	...
Lumber	1,359	...	...	...	...	...	...	...	...
Mahogany	10,510	...	...	...	...	...	...	...	...	...
Manjak	2,060,517	...	...	...	...	...	...	...	...
Molasses
Oranges	52,950	1137,696	1,175	...	...	...	...	...	...	...	...	...
Essential Oils	110,181	...	129,852	...	219,516	49,099	107,481	49,831
Petroleum	2,128	...	...	...	1,683	...	8,764	90,936
Pimento
Rice	7,378,783	...	...	...	...	...	...	...	...	...
Rubber	4,749,390	...	...	...	...	...
Rum
Shingles	...	115,040	178,667	1,334	...	...	432,711	...	...	...	...	754
Sugar	...	2,800	693,650	...	...	...	...	...	...	...	...	...
Sugar	18,296	...	...	...	...	...	...	...	...	...
Timber	462	...	87,439	...	...	...	12,191	19	2,061	83	168	12,452

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.

Telegrams—
"Carib, London."



15, SKEPPING LANE,
LONDON, E.C. 3.

June 8th, 1922.

BANK RATE. 4 per cent. as from April 18th.

EXCHANGE. Value of the £ Sterling.

	May 23rd	June 6th		May 23rd	June 6th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To U.S.A. ...	18 3	18 5	Spain ...	1 2 11	1 2 8
.. France ...	1 13 3	1 19 0	.. Germany	48 12 6	53 1 7
.. Belgium ...	2 2 6	2 2 4	.. Austria	1810 0 0	2200 0 0
.. Italy ...	8 8 10	8 8 5	.. Holland	19 0	19 0

The intrinsic value of the gold sovereign is £1 1s. 8d.

SUGAR. There has been a substantial rise in the New York market during the fortnight. At the date of the last Summary the value of duty-paid landed Cubans was 4.07c. The market opened after the American holidays with a quotation of 4.29c., and to-day's price is 4.45c., equivalent to 2.84c. c.i.f., or 2.87c. f.o.b. This is practically 1.10c. above the low water mark of December 28th last.

Future market values are: July 2.81c, September 3.00c.

The home market has responded to the New York, and there has been a material increase in values. The quotations are: West Indian Crystallised, 41/- to 44/-; London Granulated, 48/9; Yellow Crystals, 48/8; American Granulated, 48/7 spot; White Mauritius, 45/8 to 46/-. Cuban 96 deg. are quoted at 14/6 c.i.f., the price of preferential 94 deg. being 17/6, producers receiving 80 per cent. of the value of the preference.

The terminal market quotations to-day are: 96 deg., July 14/9, August 15/-. White, July 21/5½, August 21/9.

A new feature in Continental sugar policies appeared in the earlier part of the fortnight in the German Government removing temporarily the prohibition of imports on account of the sugar shortage in that country, and as the result, American granulated was bought for diversion to Hamburg. Hungary has also removed the embargo upon imports.

Thirty-seven factories are working in Cuba, against 75 at this time last year.

The total imports of sugar into India during the twelve months ending March 31st, 1922, amounted to 717,612 tons, against 226,908 in 1920-21, and 448,723 tons in 1919-20. In 1921-22, 32,621 were re-exported, as against 72,577 tons in 1920-21, and 68,212 tons in 1919-20. The net imports were, therefore, 684,991 tons in 1921-22, 161,331 tons in 1920-21, and 340,511 tons in 1919-20. In 1921-22 Java supplied India with 627,965 tons, Mauritius 61,611 tons, and Belgium 12,798 tons.

The new Canadian Budget imposes an excise duty of 49c. per 100 lbs. on home-grown beet, which has hitherto been exempt. It also increases the Customs preference on British sugar over 16 Dutch Standard from 4 to 4.

Official figures give 911,190 tons as the United States beet crop for 1921-22.

Scotch refiners have sold 4,000 tons of white sugar for the Continent at a reported price of 20/8 f.o.b.

The West Indian sugar statistics in London on May 27th were:—

	1922.	1921.	1920.	
Imports ...	17,366	20,922	24,338	Tons
Deliveries ...	14,912	16,833	14,447	
Stock ...	7,149	12,493	18,027	"

RUM continues dull and unchanged. No transactions of any importance have been reported in London for the past six weeks.

The stocks in London on May 27th were:—

	1922	1921	1920	
Jamaica ...	11,495	10,950	7,863	Puns.
Demerara ...	19,475	16,803	13,045	"
Total of all kinds	40,093	37,744	30,522	"

OAGAO. The market is quiet, but steady. A small business has been done in good plantation at 70/- spot; fine estates is quoted at 75/-, but only small offerings are reported. A small business has been done in fine Grenada at 64/-.

Messrs. Edgar Tripp & Co. report that the shipments of Trinidad cacao during April were as follows:—

Destination.	Weight in lbs.
To all countries	5,722,524
Shipped previously	16,277,291
Total from 1st January...	21,999,815
To same date 1921	31,335,237
" " 1920	39,669,792
" " 1919	25,422,728
" " 1918	25,164,010
" " 1917	44,024,289
" " 1916	27,980,101
" " 1915	30,704,080
" " 1914	41,344,691
" " 1913	27,503,212
" " 1912	30,702,105
" " 1911	23,699,791

The stocks in London on May 27th were:—

	1922.	1921.	1920.	
Trinidad ...	8,788	22,724	31,747	Bags.
Grenada ...	9,161	29,871	25,416	"
Total of all kinds	99,136	194,188	228,295	"

ARROWROOT. Only small sales are passing, and rates are steady. Fair to good manufacturing, 3½d. to 4d.; good to fine grocery, 4½d. to 6½d.

BALATA. West Indian sheet is unchanged, with sellers at 3/1 spot, and buyers at 3/0½.

BAY OIL. There is no enquiry. The nominal quotation is 9/- to 12/-, according to test.

COFFEE. The market will remain closed until the 13th, and there is very little doing privately.

COPRA. There is a moderate business passing generally. West Indian f.m.s. is valued at £26, c.i.f.-London.

COTTON has been in good demand, and quotations generally are higher. No business has been reported in West Indian Sea Island, and prices of this grade are unchanged at: medium 28d., fine 30d., and extra fine 38d.

HONEY has been in poor demand since the last auction. Small sales of fermented have been made at 20/-, dark liquid at 20/-, and good polish set at 55/- per cwt.

LIME PRODUCTS. Lime Oil. Handpressed is neglected, with sellers at 11/- per lb. Distilled is also neglected, with sellers at 2/- to 2/3 per lb. **Lima Juice.** Good new Jamaica Raw has sold up to 3/9 in small quantities, the demand having been caused by the hot weather. Concentrated is firm, with further business done at £18.

LOGWOOD is quiet, with very little business passing. The nominal quotation is unchanged at £9 10s. per ton.

ORANGE OIL. Jamaica Sweet has sold on the spot at 10/6 to 11/-; other West Indian is worth about 1/- less. Bitter is neglected.

RUBBER. Only a small business is passing. Crepe and sheet are quoted at 7½d. spot.

SPICES. No interest is shown in **Pimento.** There are spot sellers at 2½d., or to arrive at 19/8 c.i.f., without business resulting. **Ginger** purchased on c.i.f. terms is being offered for re-sale on landed terms at prices above the market value. Jamaica is quoted at 140/- to 200/-. The market for West Indian **Nutmegs** and **Mace** is firm and rather dearer. Medium sized nuts, wormy, are worth about 6d. per lb., and sound about 9d. per lb. Mace, broken, has sold at 1/- to 1/2, and good red to good pale 1/8 to 1/10.

TRINIDAD OIL. The April shipments amounted to 4,419,095 galls., making the total for the four months 15,429,594 galls. For the same period last year, 11,531,784 galls. were shipped, and in 1917 9,729,496 galls.

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The West India Committee Rooms.

Telephone:
CENTRAL 8642.
Telegrams:
CARIB, LONDON.



15, BRITHING LANE,
LONDON, E.C. 3.
June 20th, 1922.

THE HON. EDWARD WOOD'S REPORT.*

SINCE we last went to press, MR. EDWARD WOOD'S report on his recent official visit to the West Indies and British Guiana has been published in those colonies and presented to Parliament. Elsewhere in the present issue we publish a summary of its principal features. MR. WOOD'S mission was undertaken in consequence of representations made from the House of Commons last year, which expressed the growing demand in several of the West Indian colonies for the bestowal of a measure of representative government. Consequently, as was to be expected, constitutional questions occupy the foremost position in the Report. The recommendations in this connection are far-reaching but moderate. Briefly, it is proposed that the elective system shall be introduced—in some cases one should say re-introduced—into each of the Windward Islands and Trinidad and Tobago; whilst in Jamaica and British Guiana it is to be extended so that the people may have a greater voice in the affairs of the colony. On the other hand, the ultimate control is to rest, as heretofore, with the Secretary of State for the Colonies, and ample argument is adduced for this decision. Those who have laboured for the cause of a reasonable measure of self-government are to be congratulated on the results now in reasonable prospect of attainment, while any who may be averse to such a political change as is now projected should realise that the demand for it is widespread, and it should be the

duty of the minority to assist in securing the smooth and efficient working of the amended constitutions. All who have studied West Indian affairs must have realised that some modification of the local constitutions was inevitable. All the world over the doctrine of "self-determination" has been accepted, and it is obviously better to anticipate demands in this connection by the adoption of a reasonable and statesman-like policy than to wait until they are forced upon the Government. The Leeward Islands (with the possible exception of Dominica) alone stand outside the new proposals, Mr. Wood having found no volume of public opinion in that colony in favour of a change. MR. WOOD'S views on the question of Federation were no doubt influenced to some extent by the fact that shortly before his arrival in the West Indies, proposals to hold a meeting of a West Indian Council had fallen through owing to several colonies having decided not to participate. The object of this Council would have been to discuss matters of common interest; but a leading Barbadian, whose opinion MR. WOOD believed to have been fairly representative, pointed out that he doubted the utility of discussing common problems except by individuals specially selected for a particular conference summoned *ad hoc* to deal with a particular subject. Be that as it may, MR. WOOD is satisfied that, so long as public opinion stands where it does to-day, it is both inopportune and impracticable to attempt amalgamation of existing units of government into anything approaching a general federal system. But while appreciating the difficulties—physical as well as political—in the way of Federation, MR. WOOD suggests that the opportunity might be taken of the forthcoming retirement of the Governor of the Windward Islands to discuss the possibility of the association of the Windward Islands in some form with Trinidad, and he suggests that this question might be debated in the four Legislative Councils concerned with a view to eliciting responsible unofficial opinion regarding it.

Following the section of the Report dealing with constitutional matters is one relating to economic problems affecting the West Indies. It contains a particularly capable analysis of the difficulties from which the sugar industry has been suffering, and it is gratifying to us to be able to record that the assistance which MR. WOOD recommends for adoption is precisely that advocated by THE WEST INDIA COMMITTEE, namely, an increase of the preference from one-sixth to one-third, and in the event of the sugar duties being reduced, the maintenance of the preference on 96° test sugar at not less than £3 15s. per ton. The arguments in favour of this have evidently made a strong appeal to MR. WOOD and his colleagues, who from their personal investigations realise that the British West Indies

*Command Paper 1679.

cannot help comparing the treatment afforded to them by the Mother Country with that given by the United States to Porto Rico, whose trade since the islands became part and parcel of the United States is shown by statistics to have grown at a remarkably rapid rate. "The British West Indies," says Mr. Wood, "cannot help contrasting this development with their own and draw the inevitable conclusion." Another industry singled out for special mention is that of limes, the crops of which cannot be disposed of even at prices below the cost of production, owing to the falling-off in the demand for citric acid, to over-production of that commodity in Italy, and to Exchange conditions. In this connection it is interesting to know that the Board of Trade is being asked to consider whether it would be possible to bring citrate of lime and citric acid manufactured in Italy within the provisions of the Safeguarding of Industries Act, with a view to placing an import duty of 33½ per cent. on foreign citrate of lime and citric acid. The development of the demand for limes by the manufacture of a "squash" similar to the Australian lemon squash now sold in England, which is also recommended, would, it is to be feared, only prove a very slight palliative, since the demand for limes and lime drinks in this country, never really great, is apt to fall to negligible proportions with the mercury in the thermometer.

We are glad to find that Mr. Wood was so greatly impressed during his tour by the importance of adequate communications both with the United Kingdom and between the islands, and that this point was also strongly represented to him in nearly every colony which he visited, for this was one of the matters prominently brought to his notice by the Deputation of THE WEST INDIA COMMITTEE which waited on him before he left London. He favours a service between Canada, the West Indies, British Guiana, and the United Kingdom, returning by the same route, but feels that this would not be sufficient unless a direct service between Jamaica and Trinidad or Barbados can also be arranged. Here the steamers of ELDER & FRYFES, which will commence to call at Barbados and Trinidad once a month on their outward voyages in the late autumn, will be helpful, for though they will not give *direct* communication between those islands and Jamaica, they will at any rate form a valuable link. As regards telegraphic communication, Mr. Wood favours the scheme put forward originally by THE WEST INDIA COMMITTEE and now generally adopted for the laying of cables from Bermuda to Barbados and Trinidad. He is firmly convinced of the necessity of carrying this scheme through, and strongly urges Mr. CHURCHILL to expedite a decision regarding it by His Majesty's Government. To which we say, "Hear, hear."

Not the least important sections of this valuable Report are those dealing with public health and sanitation, and education. Reading between the lines of his remarks on both subjects, one realises that he fully appreciates the paramount necessity of securing improvement in both respects. In British Guiana, to whose development he devotes a special chapter of his report, he considers that a vigorous tackling of the problem of improving

health and sanitary conditions in the colony is an essential preliminary to development. Here the Government can help, but the problems of internal communications he considers require the assistance of private enterprise, in order to obtain which, definite concessions other than those limited to transportations may be found necessary. We have only touched very briefly on a few of the important matters dealt with by Mr. Wood in his Report, and would commend for the perusal of all interested in the development of the British West Indies and British Guiana that document, which should be read from cover to cover. It is by far the most valuable epitome of West Indian conditions that has been published since the memorable report of the Norman Commission of 1897, and we hope that it may mark, as did the report of that Commission, the starting-point for a fresh drive in the direction of economic development of our oldest group of colonies.

THE BOARD OF TRADE RETURNS.

THE Board of Trade Returns for May show how general the impression must have been in the retail grocery trade that the Budget statement would provide for a substantial reduction in the duty on sugar. In April last the quantity of sugar taken out of bond was only 80,471 tons, as compared with 111,770 tons in March; but last month the deliveries amounted to no less than 191,451 tons, or nearly two and a half times the April figure. To produce this result, the invisible stocks in retailers' hands must have been reduced to nearly vanishing point. The excess in May is, however, so great that there is every justification for considering that a part of it has been due to an increased demand on the part of consumers, and with the preserving season now in progress, there is every prospect of the increase in consumption being maintained. As it is, the five months' consumption of the present year shows an increase of 84,640 tons, or 15.75 per cent. over that in the corresponding period of last year. Another interesting feature in the Returns as regards sugar is that the refiners supplied the record figures of 101,914 tons during the month, without unduly diminishing their stocks of refined sugar, which shows an endeavour on their part to cope with the demand for refined sugar. Europe only supplied 2,540 tons of sugar, an indication of the scarcity of sugar on the Continent—a scarcity which must continue, and even be accentuated until the beet crop reaping begins in the latter part of the year. As regards rum, in spite of the quantity of that product taken out of bond being considerably greater than in April, this should not be looked upon in any other respect than as a replenishing of stocks, inasmuch as the five months' consumption is 153,531 proof gallons, or 19 per cent. less than what it was for January to May last year. Although the greater part of the 33 per cent. increase in the cacao withdrawals from bond in May over those for April was no doubt due to the Budget, yet, as in the case of sugar, there is evidence of increasing consumption, the five months' consumption being 416,462 cwts., as against 373,586 cwts. for the same period last year.

SOME NOTES OF INTEREST.

"MARRIAGE hab tect' an' bite hot."

* * *

A BILLION pounds of candy are sold yearly in the United States.

* * *

THE cost of cutting canes to furnish one ton of sugar in Queensland is stated by the *Australian Sugar Journal* to be in the neighbourhood of £3 10s.

* * *

THE distribution of last year's Hawaiian sugar crop among the islands of the Archipelago was: Hawaii proper, 175,950 tons; Maui, 103,114 tons; Oaha, 112,019 tons; and Kanai, 90,242 tons.

* * *

RECENTLY, in Manchester, a publican, who sold sweets as well as beer, applied for a renewal of his licence. He was given the choice of giving up the sale of beer or that of sweets. He gave up the sweets.

* * *

THE pineapple industry of Hawaii began in 1901, when 2,000 cases were exported. In 1912 the exports had risen to 1,318,330 cases, and in 1920 to 5,986,982 cases. In 1921 the production fell to 5,263,156 cases, and the 1922 estimate is 5,250,000 cases.

* * *

AN Official Bulletin of the Japanese Government states that at the beginning of 1921 there were 40 modern sugar factories in Formosa grinding 30,000 tons of canes per day in all. The output includes a considerable amount of white sugar for direct consumption.

* * *

At present the greater part of Chile's sugar supply is in the form of raw sugar from Peru, which is refined in Chilean refineries. A company has, however, been formed with the view of creating a beet sugar industry, and the scheme is taking a definite shape.

* * *

REPLYING on June 18th to a deputation representing the whole of the retail licensed trade in the country, the Chancellor of the Exchequer said it would not be right to mislead the trade into hoping for some reduction in the beer and spirit duties, at all events at present.

* * *

THE *Australian Sugar Journal* states that in Queensland an interval of two days between cutting and grinding canes means a loss of 2.8 per cent. of the available sugar, 12.2 per cent. when the interval is four days, and 18.8 per cent. when the canes are six days old.

* * *

"FACTS ABOUT SUGAR" states that 105 turbo-electric generators are now in use in the sugar industry of Cuba, the units varying from 50 to 2,000 kilo-watts. The usual unit size is from 500 to 1,000 k.w. Some of the larger factories have as many as five electric generators, and Jaronu, the latest factory, has six.

THE *Fertiliser and Feeding-Stuffs Journal* states that recently an American steamer arrived at Liverpool with 9,000 tons of Cuban molasses consigned to the Pure Cane Molasses Company. This is the biggest cargo of molasses which has ever arrived in this country, and represents the molasses from about 27,000 tons of sugar.

* * *

A NEW fertiliser, styled electro-potash, is made in Sweden from a mixture of felspar, iron filings, and coal, heated in an electric furnace to about 3,000 deg. Fahr. A ferro-silicon is produced with a potassic slag in which the chief constituent is potassium silicate. It is supposed to take the place of potassium sulphate, and the results of its application are well spoken of.

* * *

ACCORDING to the Barbice correspondent of the *Demerara Daily Chronicle*, an East Indian woman in No. 60 Village recently gave birth to four children, all of whom died. Not to be outdone, a negro woman in 79 Village responded by giving birth to five children, all of whom were, when the mail left, "doing well." The mother should be a worthy candidate for the King's Bounty.

* * *

BRITISH GULANA has now fallen into line with the majority of the West Indian Colonies, and has adopted, with one slight modification, the combined form of Certificate of Origin and value recommended by the Imperial Customs Conference for use in connection with preferential tariffs. This modification is the omission of Clause 3, which relates to the origin of bottles, jars and other containers.

* * *

THE date of the first establishment of the sugar refining industry in England is uncertain, but Deere mentions two refineries as operating in London in 1544. The Scotch industry was initiated in 1689 by the erection of a refinery on the Clyde. No record is available as to when refining was started in Ireland, but the additional excise duty levied on Irish refined sugar by the Act of Union of 1801 was the death-blow to the industry in that country.

* * *

EXPERIMENTS have recently been made at the Midland Agricultural and Dairy College as to the value as a fertiliser of ammonium chloride in comparison with sulphate of ammonia. The crop selected for experiment was oats, and the conclusion arrived at was that although sufficient was not available to indicate its full possibilities, there is little doubt that it is practically as effective as sulphate of ammonia for top-dressing purposes.

* * *

IN Australia, the cost of refining the Queensland sugar, including the carriage by rail from the factory to the refinery, is between £6 and £6 10s. per ton. In the United States the cost of refining 96 deg. sugar, including carriage from wharf, has been officially stated to be .94 cent per lb., or \$21 per ton. The cost of refining in the United Kingdom is a trade secret, but there is no apparent reason why it should be higher than in the United States.

THE Naval Wireless Station at Colyville, Jamaica, closed at midnight on May 31st, thus cutting off communication with Belize, British Honduras, and Nassau, Bahamas, via Jamaica, by wireless. It is understood that this is in accordance with the general policy of the Admiralty, which is negotiating with the various Governments with a view to their taking over the stations established during the war. St. Lucia has already decided to take over the wireless, as reported recently in the CIRCULAR.

* * *

MESSERS. WILLETT AND GRAY, in their *Statistical Sugar Trade Journal* of May 4th, give the world's sugar crops for 1921-22 as 16,906,217 tons, as against 16,681,692 tons in 1920-21. The 1921-22 beet sugar crops realised 5,000,500 tons—4,077,500 tons in Europe, 900,000 tons in the United States, and 28,000 tons in Canada. The total cane sugar crops are estimated at 11,905,717 tons, 6,145,819 tons in the West, 4,850,610 tons in the East, 540,593 tons in Africa, 868,701 tons in Australia and Polynesia, and 5,000 tons in Europe.

* * *

With reference to the table of Customs duties of the new United States tariff, as reported to the Senate, which was published on page 264 of last CIRCULAR, it should be noted that the present rate of duty on "sugars, tank-bottoms, syrups of cane juice, melada, concentrated melada, concrete, and concentrated molasses" remains unchanged, being 1 16-100ths cents per lb. on sugar testing 75 degrees by the polariscope, and 4-100ths cent per lb. on every additional degree; fractions of a degree in proportion. Thus the duty on 96 degree sugar will still be 2.00 cents, and on 100 degree sugar 2.16 cents.

* * *

AN endeavour is being made to raise a Building Fund of £5,000 for the Girls' High School in Antigua. That institution provides for the education of children of Government officials not only in Antigua, but in other Presidencies of the Leeward Islands. The school has never been adequately housed since it was founded in 1886, and its present building is too small for its pupils, who now number 74. By means of various entertainments the sum of 1835 has been raised locally, and an appeal is now being made to Old Girls abroad and to wealthy persons in England who are interested in education and in the welfare of the colonies. Donations may be sent to His Grace the Archbishop of the West Indies, Bishop's Lodge, Antigua.

* * *

THE West India Committee some years ago took up with the Canadian Government and the Royal Mail Steam Packet Company the question of a call by the Canadian direct steamers at Nevis. They recently renewed their representations on the subject, and have learnt from the Deputy Minister of Trade and Commerce at Ottawa that arrangements have now been made for the Royal Mail steamers to call at Charlestown on their north-bound voyages when sufficient inducement offers and space is available. The sufficient inducement necessary is a

minimum of 100 tons of sugar, or 150 puncheons of molasses, and it will be interesting to learn whether this quantity will be available. The Royal Mail Company point out that the itinerary of their steamers continues to tax their powers to the utmost, and that an extra call, especially south-bound, would be liable to endanger the regularity of arrival and departure which is so essential to a mail service.

* * *

THE countries of the world, according to *Facts about Sugar*, which show an increase in their 1921-1922 sugar crops over those for 1920-1921 are:—

	8,000 tons as against	5,600 tons
The Virgin Islands	120,000	100,000
Mexico	360,000	300,000
Brazil	325,000	320,000
Peru	100,000	80,000
Egypt	151,500	150,000
Natal		
Japan, (including)		
Formosa and	425,000	340,000
Manchuria		
India	2,592,000	2,350,000
Java	1,651,650	1,550,000
Australia	295,500	280,000
Germany	1,320,000	1,070,000
Belgium	289,613	240,000
Holland	374,000	311,000
Italy	222,000	132,000

* * *

In connection with intercolonial steamer communication, the CIRCULAR is reminded that facilities for communication between Trinidad, Barbados and Jamaica is now afforded by the steamers of James Nourse, Ltd., of 71, King William Street, E.C. These vessels, on reaching the West Indies from India and Burmah, whence they sail twice a month, make Trinidad or Barbados their first port of call, and proceed thence to Guadeloupe, Porto Rico, Jamaica and Cuban ports. Arrangements have been made for timely notice to be supplied to the company's agents at Barbados and Trinidad of the amount of passenger accommodation available and the ports of call after leaving Trinidad and Barbados. The company's agents at Trinidad are Messrs. Furness, Withy & Co., Ltd., and in Barbados Messrs. Da Costa & Co., who will always be glad to answer any enquiries about this route. The company also carries passengers from South Africa to the West Indies, thus opening up a possibility of immigration into British Guiana from the Union.

HOT SAUCE.—Peel and mince 4 ozs. of eschalots, 3 lb. of onion, 1 oz. tumeric, 1 oz. ginger, 1 oz. mustard, 1 oz. of salt, 2 pints and 3 gills of vinegar, 12 bonnet peppers without seeds, and 15 negro peppers, 1 lb. of grated horse radish, 6 cloves of garlic. When these have been all finely minced, mix well and add 3 dozen peeled whole eschalots, and bottle. The sauce is ready for use in 3 or 4 days.—MR. C. E. YEARWOOD.

[Those readers unable to secure the ingredients for this condiment can obtain Hot Sauce from the West Indian Produce Association, 14, Creechurch Lane, London, E.C.]

HON. EDWARD WOOD'S REPORT.

Its Findings Summarised.

Mr. Edward Wood's report on his visit to the West Indies and British Guiana has now been presented to Parliament and published as a White Paper [Cmd. 1679]. In an introduction Mr. Wood refers to the origin of his mission, and enumerates the places visited. He expresses particular regret at having been compelled to forgo his projected visit to British Honduras—whose possibilities he has since discussed with the Forestry Officer of the colony—and then deals with the loyalty of the West Indian colonies to the Throne and to the person of the King, a sentiment that "pervades everything, and finds expression in every form and on all occasions. It is," he says, "a feature of our tour which stands out in boldest outline, and which I recall with the greatest satisfaction. The effect of it is constantly to direct the gaze of the West Indian communities towards Britain and towards the visible symbol of unity that the person of the Sovereign affords. The worth of such an influence in maintaining Imperial solidarity and in counteracting the possible growth of other tendencies can hardly be placed too high, and it is well that citizens of the United Kingdom should appreciate it."

This was the first tour of the kind in the long history of the West Indies. "The occasion was therefore regarded as a new departure by the Colonial Office, deliberately conceived with the object of promoting a closer touch between those responsible in the United Kingdom for the administration of the Colonies and their inhabitants. On this account the visit was everywhere much appreciated, and hopes were expressed that the policy might be periodically repeated by similar missions to different parts of the Empire."

From the outset the tour had a political complexion; but as soon as it was made clear to the colonies that it was not the purpose of the visit to supersede the local Government, a point on which some misconception at first existed in certain quarters, the opportunity afforded of full and frank discussion of local problems and aspirations with representatives of the Imperial Government was warmly welcomed.

The report which follows is grouped under five headings, namely: (I.) Constitutional; (II.) Economic; (III.) Medical; (IV.) Educational; and (V.) Miscellaneous.

Within the compass of the CIRCULAR it is not possible to give here the findings in full, and it must suffice, therefore, to summarise them.

(I.) CONSTITUTIONAL.—This section deals with the lines of constitutional development in the British West Indies, constitutional questions in Jamaica, in the Leeward Islands, in the Windward Islands, and in Trinidad and Tobago, the use of the official majority in the Leeward and Windwards and British Guiana, West Indian Federation, Defederation in the Leeward Islands, and the interchange of officials between the Colonial Office and the Colonies.

The constitutions of Barbados and British Guiana, the products of historical circumstances,

with their "qualities and defects," are left out of consideration, though it is suggested that should necessity or the desire of the colonists ever compel their revision, it is probable that such revision would be along the lines common to the other colonies. The other colonies are administered under a system of pure Crown Colony Government. Mr. Wood traces the growth of political consciousness and democratic sentiment stimulated by the war and education, and, in the case of Jamaica, by the treatment afforded by the United States to Cuba and the Philippines.

The deliberate demand for elective representation is far less than its champions would profess. Nevertheless it would be grave unwisdom to allow this consideration to lead to the refusal of the privilege claimed if the Secretary of State is satisfied that the demand is of sufficient substance to justify concession. It would be wise to build upon the foundation of the remarkable loyalty to the Throne by which the people are inspired, and avoid the mistake of endeavouring to withhold a concession ultimately inevitable until it has been robbed by delay of most of its usefulness and grace.

If, then, the demand is to be met, what concessions can be made? Responsible Government is ruled out owing to the mixed populations, of which great blocks are backward and uneducated, to the absence of a class of leisured citizens who could take an active part in political life, to the controlling influence of the Secretary of State being essential for securing some uniformity of administration, and finally to the small proportion of the electorate who exercise the franchise.

The main stages of evolution suggested are therefore as follows:—

- (i) The first stage would be on the basis approved for Grenada by such adjustment of numbers as will, while leaving the official "bloc" in a clear majority, give place to "elected members" by reducing the number of nominated unofficials.
- (ii) The next stage would appear to be the adjustment of numbers with the effect of transferring the majority held by the official "bloc" to the hands of the elected and nominated elements conjointly. Such a redistribution of numbers, under which, of course, the nominated unofficial element would retain complete liberty of voting as it liked—a liberty which it now possesses in all Colonies save Jamaica—would at the same time afford reasonable likelihood that on grave matters the responsible element in the community represented by the nominated members would be found in support of the Government, and thus furnish a majority if, on the most unfavourable hypothesis, the elected members were unanimous against it. In this connection it is worthy of note that it is desirable to establish definitely the liberty of nominated unofficial members in Jamaica to vote as they like. Only in this way is it possible to relieve nominated members of the stigma, which detracts so much from their usefulness both in the community and in debate, that they are mere dummies under the thumb of the Governor, to whom it is useless to appeal by discussion or by argument.

Every measure of constitutional advance must call for prudent and deliberate action, and on these lines it will be possible to take the first steps in associating the people directly with the task of their own government.

But in every case it is essential to preserve unimpaired the ultimate control of the Secretary of State. In stage (ii), where the Government would no longer control an official majority, this can best be done by entrusting the Governor with the power of carrying in the last resort by the votes of ex-officio and nominated members only measures or votes declared to be "essential to the good government of the Colony," such action to be matter for reference for confirmation or disallowance by the Secretary of State.

The question of including elected representatives in the Executive Council is not discussed, responsible government being ruled out, and similarly the possibility of establishing a "dyarchy" is rejected, the field of Government being too restricted and the communities too small to obtain any administrative advantage from division of the different functions of government among responsible ministers and official departments, as in India.

The constitutional changes regarded as desirable in particular colonies are as follows:—

JAMAICA.

1. *The Central Government.*

(a) The Privy Council to remain constituted as at present.

(b) A new Executive Committee to be set up (the necessary alterations being made in the instruments to effect the requisite constitutional change). This Committee to be "advisory" to the Governor, and to deal with such matters, financial or other, that he may desire to bring before it. In practice it may be anticipated that all financial matters, and projected legislation, will be referred to this body. The Committee to comprise the Governor, Officer Commanding troops, Colonial Secretary and Attorney-General, two nominated non-officials of the Legislative Council, four elected members of the Legislative Council, and the Legislative Council to consist of the Governor, Officer Commanding Troops, Colonial Secretary, two other officials, five nominated non-officials, and fourteen unofficial members.

2. *The Parochial Boards.*

The Parochial Boards should in future be composed of the "Custos" and of the member of the Legislative Council for the parish and of six to ten elected members (instead of nine to fifteen as at present), with power to co-opt as "aldermen" a further number of members to not more than one-half nor less than one-quarter the number of their directly elected members. The reduction in the number of elected members is necessary to prevent the Boards from being unwieldy in size. Possibly the Collector of Revenue should also be made a member of the Board, which should retain full possession and control of its own financial resources.

LEEWARD ISLANDS.—The question of representative government not having hitherto attained the same relative importance as in other colonies, no constitutional changes are recommended for St. Kitts-Nevis, Antigua, and Montserrat. There was

a strong feeling that Dominica had something of the character of a separate entity, and that it should be treated differently from the other Presidencies, and Mr. Wood promised to consider the colony's claim for a measure of representation, though he emphasised the need of securing for the Secretary of State the final responsibility for the administration.

ST. LUCIA AND ST. VINCENT.—In both of these colonies the election of two or three members of the Legislative Council by popular vote is recommended.

GRENADA.—Here the principle of representative government had already been conceded by Lord Milner, but Mr. Wood is prepared to recommend that if the principle of a single constituency for the whole island is dropped, the people should be allowed to elect five members of Council instead of four, as at first proposed.

TRINIDAD AND TOBAGO.—Here the question of representative government was more difficult owing to the lack of homogeneous public opinion and exceptionally cosmopolitan population, but the following scheme is recommended:—

The official side of the Legislative Council, consisting of ten members to be so altered as to enable the Governor to nominate (apart from the official members of the Executive Council) not the holders of particular offices, but such heads of departments as he may consider suitable. The unofficial side to comprise seven elected members (if Tobago wishes to participate) and six nominated unofficial members, the official side of the Council being increased by two. A local Commission should be appointed to consider details, certain principles being laid down, namely, that candidates should reside in their constituencies, that they should be British subjects, and that the Council should last for five years. It is further recommended that if it be found that the Legislative Council can appoint a Committee composed of members of whom only some have the right to vote, that this anomaly be abolished, and all members of the Finance Committee be placed on the same footing.

A note on the use of the official majority in the Leeward and Windward Islands and British Guiana follows, it being suggested that a general despatch be sent to the Colonies laying down that when there was unanimous opposition on the part of all the unofficial members of a Legislative Council, the Governor should refrain from bringing the contested measure into operation until further reference was made to the Secretary of State, to whom the unofficials should also have the opportunity of expressing their views, it being understood, however, that financial measures, such as taxation ordinances, must always be treated as urgent when there is any possibility of evasion by forestalment or serious loss of revenue by delay.

WEST INDIAN FEDERATION.—Reference is made to the proposals of the Hon. Gideon Murray, M.P., for a federation, of Sir Samuel Hoare, M.P., who favoured the appointment of a High Commissioner, and of Sir Edward Davson, who proposed a West Indian Council with a permanent secretariat. The advantages of federation are dealt with; but the conclusion is arrived at that, however much it

would be to the evident advantage of the colonies to secure machinery for greater unity and co-operation, there are practical objections which for the present, at any rate, make this impossible. The refusal of some of the colonies to entertain Sir E. Davson's exceedingly modest proposals for a conference to discuss the possibilities of more continuous co-operation was significant of the reception likely to await any extensive scheme of federation. The first and most serious difficulty is physical, the lack of steamer communication—the improvement of which is one of the most urgent problems of the West Indies—and political considerations, the sea tending to divide rather than unite the archipelago. Barbados rejected the tentative proposals for a West Indian Council, and a leading Barbadian, whose opinion was believed to be fairly representative, informed the Mission that he doubted the utility of discussing common problems, except by individuals specially selected for a particular conference, summoned *ad hoc* to deal with a particular subject. The possibility of the federation of the Windward Islands with Trinidad might, however, be discussed, though it must be made clear that an essential condition of approval by the Secretary of State will be a deliberate opinion in favour of the change in the Colonies themselves.

DEFEDERATION IN THE LEEWARD ISLANDS.—In each presidency Mr. Wood found a movement in favour of defederation, the substance underlying it being that each paid too much for federal services. This was particularly strong in Dominica. He was not, however, in favour of changing the existing system, the chief argument in favour of which is financial. Nowhere was the advantage to a community of securing the services of good officials, or how largely it was a question of paying good salaries realised. It is undoubtedly better for the islands to secure the part-time services of highly qualified officers rather than less competent ones for whole time. Various suggestions are made, however, to obviate difficulties, such as the Administrator of St. Kitts being required at any moment to vacate Government House for the Governor—provision of a second Government House in each of the Presidencies being advocated. A local commission should also sit to consider complaints that inhabitants are paying too much and receiving too little.

Dominica already enjoys a measure of independence, its administrator being permitted to communicate direct with the Secretary of State, and Mr. Wood does not see what further political change can be made without losing the advantages it enjoys under federation. There is force in the argument that a representative of Montserrat should sit in the Federal Council, and it would be reasonable that two representatives of Nevis should sit on the Legislative Council of St. Kitts-Nevis.

INTERCHANGE OF OFFICIALS.—The desirability of an interchange of officials between the Colonial Office and the Colonies was advocated in unofficial circles. Apart from difficulties arising over pension rights and conditions of service, there are other obstacles. Senior officials of the Colonial Office cannot be spared for any length of time

without gravely impairing the efficiency of the department, nor is it clear that there is any office that they could fill. The same applies conversely to senior officials in the Colonies. Junior officers could only fill subordinate posts which would not bring them into contact with the type of problem with which the Colonial Office has to deal, and it would be obviously improper to employ junior officers from the Colonies on work involving criticism of the decisions of responsible officers in the Colonies.

Mr. Wood suggests, however, that in the first few years of an officer's service in the Colonial Office he should, as a matter of policy, and as one of the conditions of appointment, be sent to the Colonies on a definite mission of instruction, so that without attempting to fill any definite Colonial post he might see what tropical conditions were like, and how administration looks from the Colonial side—which is virtually the suggestion made recently in THE WEST INDIA COMMITTEE CIRCULAR.

(II.) ECONOMIC.—Under this heading a general description of the principal West Indian industries is given. The material welfare of the West Indies depends almost entirely upon obtaining overseas markets for sugar, coco-nuts, cocoa, bananas, cotton, limes, nutmegs, and arrowroot. "In this connection," says Mr. Wood, "I attach the highest possible importance to the foundation of the new Agricultural College in Trinidad. It is impossible for any industry to compete successfully in the modern world unless it has easy access to the best scientific advice upon practical questions that arise in the course of the daily routine. The college will provide a centre for the prosecution of research and for the gradual propagation of scientific ideas, not only in Trinidad, but throughout the Colonies from which its students will undoubtedly be drawn in increasing numbers.

As regards cocoa, the quality of that produced by Trinidad and Grenada is well known, and it would seem that those two Colonies are able to hold their own in spite of the rapid extension of the cocoa industry on the Gold Coast. The cultivation is, for the most part, carried on by small proprietors, but the presence of a few large plantations have been helpful to the smaller man as showing what can be done by improvements in manuring and cultivation.

Hurricane and Panama disease are the chief enemies of the banana industry in Jamaica, the notable success of which is due very largely, if not entirely, to the part played by the United Fruit Company, the Atlantic Fruit Company, and the Jamaica Fruit and Shipping Company, of which the first named stands out on account of the scale of its operations and the business ability displayed by both its principals and its agents. "This great American concern employs in Jamaica a staff of approximately 1,500 persons, mainly in the organisation of the export and shipping of the fruit. Of this large staff only three are not British subjects. The bulk of the trade is with the United States and Canada, though a certain amount of business is done with the United Kingdom and the Continent

of Europe by Messrs. Elders and Fyffes, a British company managed in England, but in which the majority of shares are held by the United Fruit Company. As is, perhaps, natural, fears are expressed from time to time that the operations of so great a concern as the United Fruit Company, which is, in effect, a great trust, may become inimical to the interest of the grower, but an impartial survey of the operations of the company over a long period of years, both in Jamaica and in Central America, tends to be reassuring, and so far, at any rate, the company has been conducted on enlightened and progressive lines. The United Fruit Company has, approximately, two million pounds sterling invested in Jamaica alone, and the contribution which both it and the Atlantic Fruit Company make to direct and indirect taxation in the Colony is large and significant. Practically the whole of the coastwise shipping of the Colony is in the hands of the United Fruit Company, the two principal hotels in the island belong to it, and the company has done much to develop a tourist traffic which is of considerable benefit to the island. On the whole, it may be said that the relations between the United Fruit Company and the Colonial Government are friendly and satisfactory."

During the last year of the war and two succeeding years the West Indies enjoyed a brief period of exceptional prosperity. This was succeeded by one of acute depression. The revenues are contracting, and taxation has become a burden. The task of the administrators is, therefore, a hard one; but it would be wrong to paint too black a picture of the economic outlook, whether in the present or the future. Taken as a whole, the West Indies are standing the strain. There is little or no unemployment, and, thanks to bountiful Nature, no real physical distress. The real difficulty is that of the planter and proprietor who invested in land and its equipment during the boom.

Credit is now restricted, and the planter is inclined to criticise the banks and business houses, but it must be remembered that both have been hit by heavy taxation and burnt their fingers in the boom, just as the planters did. They have already large sums of money out, with little prospect of early repayment.

Throughout the West Indies, the general public had an altogether fictitious idea of the ability of the Imperial Government to help them financially, and Mr. Wood had to explain that Imperial assistance at this juncture, whether by way of loans or grants, was very unlikely. Unless, therefore, assistance is forthcoming from private enterprise, neither the Imperial nor Colonial Governments should embark upon any undertakings that are not absolutely essential.

TRADE REPRESENTATIVES.—It was represented to Mr. Wood that the West Indian Colonies were at a disadvantage as compared with other parts of the Empire in having no official representative in London, whose duty it would be to press on public notice their produce and the opportunities they offered for the extension of British trade.

"It is generally recognised," says Mr. Wood, "that the services of The West India Committee have been of great value in this direction, but there is an impression that an official representative, with the resources of the Colonial Treasuries behind him, could do more for the Colonies than an unofficial body. It is out of the question for each Colony to maintain its own agency, and I see great difficulties in the way of appointing any individual or body to act officially for each and all. It is equally out of the question for the Crown Agents to undertake the kind of campaign of advertisement and propaganda desired, or indeed to act as effectively as The West India Committee, in their capacity of representatives of the producing interests in the West Indies. The problem is not an easy one, and I have no ready-made solution to put forward. But the example of the Malay States Agency suggests that there may be room for yet a third institution besides the Crown Agents and The West India Committee, and I would recommend that the interests more particularly concerned should examine the position, and if possible suggest a practical scheme." Mr. Wood does not, for several reasons (the most notable being that a West Indian agency could not command professional and technical advice of the standard now afforded), recommend any changes in the system of purchases of stores and material for the West Indian Colonies, but if any scheme could be devised for bringing the Crown Agents and their staff into closer touch with the West Indian Colonies, it would deserve favourable consideration.

THE SUGAR INDUSTRY.—A special section is devoted to the sugar industry. Mr. Wood is satisfied that on the economic side there is no West Indian problem which more urgently demands the attention of His Majesty's Government. The present difficulties of the industry are due to various causes, notably the unprecedented fall from boom prices, while the falling-off in the demand for rum has been a further factor. It was generally represented that sugar could not be produced remuneratively in the Colonies unless the producer could get £15 a ton for his product.

"In the case of the West Indies, the industry had been carried on for such a long time on a narrow margin of profit that most of the estates were heavily mortgaged, and their machinery was antiquated. Much of the profits, earned during the years of prosperity, were necessarily devoted to paying off charges and to buying new machinery at war prices. Moreover, in regard to firms domiciled in the United Kingdom owning estates in the West Indian Colonies, the difficulties of setting aside proper reserves were accentuated by the Excess Profits taxation claimed by the Imperial Exchequer."

A further consequence of the boom has been the banking situation. "The bankers made large advances on the basis of the prices which it was expected in 1920 that the sugar crops would yield. When the slump came, not only did many estates find themselves involved far beyond their expectations, but the bankers had committed themselves to

such an extent that they had in many cases to refuse all further advances. Consequently, the local Governments have had to take special steps to meet the unprecedented situation, notably in Jamaica, and now in Barbados and British Guiana. These measures are, however, essentially unsound, since they involve guarantees to the banks for the bankers' own business of financing the crops in those Colonies, are emergency measures which cannot be continued or repeated, and involve liabilities which cannot be met unless the sugar industry is restored to solvency."

The reasons why the West Indies look to the United Kingdom for help are then set out. These include the fact that those Colonies were compelled to extend to the Mother Country the preference which they agreed to give to Canada under the reciprocal trade agreement, and to the treatment extended by the United States to Porto Rico and the consequent development of that island which the British West Indies cannot help contrasting with their own, drawing therefrom the inevitable conclusion. There is, too, the competition with Cuban sugar admitted to the United States on preferential terms, and the fear of dumping, not only Cuban sugar—which has been strongly reinforced by the formation of the Sugar Export Corporation in America—and of European beet sugar assisted by depreciated exchanges. "To meet this position the West Indies advance the following request:—

"That the present rate of preference in the United Kingdom should be doubled, i.e., increased from one-sixth to one-third over a period of years, preferably equal to the period of ten years for which the West Indies are bound to Canada under the existing arrangement, and for which they have undertaken to give their present high rate of preference to British goods, and also that an undertaking may be given that should the sugar duties be reduced during that period the substantive preference on British sugar should not be allowed to fall below the present figure—namely, in the case of 96° test sugar approximately £3 15s. a ton. I would add, parenthetically, that representations have already been made from the West Indies to the Canadian Government asking that the Canadian preference may be doubled.

"So far as the continuity of the principle of preference is concerned, their views have been already met by the undertaking given by His Majesty's Government that, subject to the approval of Parliament, preference at the existing proportion of one-sixth of the duty shall be maintained during the period of the Canada-West Indian Agreement. But valuable as is this concession, it is urged that it only partly meets the West Indian situation, and that for the reasons given above the existing preference of 16½ per cent. is inadequate to safeguard the industry. Moreover, those concerned are apprehensive that the present proportionate preference of one-sixth might diminish to vanishing point, if there was a substantial reduction in the sugar duties. It is to meet this possibility that they desire His Majesty's Government to undertake to maintain for the period specified a minimum preference of £3 15s. per ton." This, it should be

mentioned, is precisely the demand put forward by The West India Committee.

With regard to it Mr. Wood says:—

"I would strongly recommend that, having regard to the political and economic issues here advanced, this request should be favourably considered.

"It is impossible that any concession granted to the sugar industry should be limited to the West Indies, as it would be open to the objection of favouring one part of the Empire as against another, and it is obvious that the first consequence which a doubled preference would entail upon the United Kingdom must be an immediate prospective loss of revenue. If the preference were doubled, the loss would amount to, say, £1,200,000 on the imports from the British Empire. On the other hand, it must be remembered that the sugar industry, more than any other in the West Indies, is carried on with capital invested from the United Kingdom, which pays taxes in the United Kingdom. If sugar becomes an uneconomic proposition, these estates will go out of cultivation, and the United Kingdom will lose, not merely the capital which has been invested, but also a considerable source of taxable revenue. Other tropical products do not require investment of capital on the same scale. Secondly, the sugar industry in the Colonies provides more employment per acre and more revenue per acre than any other crop. The effect of closing down the sugar estates would be to produce a state of the gravest financial embarrassment, and to create serious unemployment in the Colonies, which are largely, or in some cases entirely, dependent on the sugar industry. It is not impossible that their difficulties would be so great that an appeal would be necessary to the British Treasury for a grant-in-aid to enable them to carry on at all, thus repeating the unfortunate history of 1897.

"At the present moment the outlook is so uncertain that planters are tending to give up sugar and go into other crops, thus increasing the dependence of the United Kingdom upon sugar produced on foreign soils. They are unwilling to-day to invest money in new machinery. The only way to ensure orders for such new machinery in the United Kingdom, and to secure an Empire-grown supply of sugar, is to show that His Majesty's Government intend to pursue a policy which will encourage the industry to look forward to a reasonably assured economic future over a period of years.

"Finally, it is right to remember that the stability and progress of the West Indies are largely dependent upon the presence of a European element. The sugar industry, being pre-eminently one which cannot be carried on without a European staff to organise and direct the local labour, is the chief means of attracting and maintaining the European population. From the political, social, commercial and Imperial point of view, it is vital that this element should be maintained, and this can only be done by preserving the sugar industry in those Colonies where it still exists. It is, therefore, not only an economic but also on political

grounds that I would recommend that His Majesty's Government should agree to the proposals of the West Indies in this matter. I realise the danger of demands from other quarters for an extension of preference on other products such as cocoa, but it must be borne in mind that when the preference was first initiated, it was only sugar producers who pressed for a change of policy from the point of view of assistance to their industry. In the case of tea, coffee and cocoa, no such strong demand existed, and I do not anticipate difficulties from those quarters. Even in the case of the West Indies, the demand for an increased preference on cocoa is not likely to be urged, seeing that so large a proportion of the production comes from the British Empire, and preference therefore gives little or no advantage to the producer."

THE LIME INDUSTRY of Dominica is also the subject of a special section. Whereas the other West Indian islands enjoyed a boom in their economic products from 1918 to 1920, the lime industry had no such boom. Before the War, the United States of America took large quantities of green limes for the purpose of making lime squash and for use in cocktails. In 1914 Dominica exported to the United States of America 45,000 barrels of green limes, in 1920 this number had fallen to 19,000 barrels and the trade is still declining. Prohibition in the States, so far from helping Dominica, has had the opposite effect. During the war the United States Government imposed, for internal economic reasons, a prohibition on the import of Dominican limes, and from this prohibition the trade has never recovered. The fresh lime has never been well known or widely used in England, and owing to the depreciation of the Italian exchange the British Colonial product cannot at present compete successfully with the Sicilian lemon.

The prosperity of the Dominican lime juice cordial trade has depended in the past on the contracts made by the Admiralty, War Office, and Navy and Army Canteen Boards for bottled lime juice. Both fresh lime juice and lime juice cordial have valuable anti-scorbutic properties, and have long been issued to the Navy for the prevention of scurvy. It would seem that in the interests of economy the Admiralty have commenced replacing contracts for Dominican lime juice by contracts for Sicilian lemon juice. Further, various synthetic citrus drinks are now competing in the European market with the genuine fruit product.

In regard to citrate of lime for the manufacture of citric acid, the effect of Sicilian competition is even more marked, though it would appear that the importation of the Italian produce is now declining owing to the slackening demand for citric acid by the colico printers. Figures given by the Department of Overseas Trade show that in 1920 the imports into the United Kingdom of citrate of lime from the British West Indies (almost entirely Dominica) amounted to 1,938 cwt., as against 25,956 cwt. from Italy. In 1921 the figures were 4,122 cwt. from the British West Indies and 6,360 cwt. from Italy. The present output of Dominica is equivalent to 400,000 barrels of limes, but the outlook for all lime products is so bad that it would

appear to be impossible for Dominica to dispose of its crops or their derivatives even at prices below the cost of production. Owing to had trade during the last six years, more than half the lime estates in Dominica are mortgaged up to a third of their capital value, and are unable to obtain further advances to enable them to carry on. Both planters and peasants are losing money, and unless some steps can be taken to improve the trade, the Colony and its inhabitants seem doomed to severe financial depression, and even economic collapse. The development of a trade in green limes with the United Kingdom is advocated, and the suggestion is made that a more attractive beverage than "lime juice" might be made from limes, and Mr. Wood adds that he is considering with the other departments of His Majesty's Government as to an amendment of the Food and Drugs Act, with a view to protecting lime beverages from competition with drinks made synthetically. The Board of Trade are also being asked to investigate whether citrate of lime and citric acid from Italy could be subjected to a duty of 33½ per cent. under the Safeguarding of Industries Act.

TELEGRAPHIC COMMUNICATION is next dealt with. Mr. Wood gathered that opinion in the West Indies was strongly opposed to any renewal of the present cable contract after its expiration, and that most of the Colonies would almost certainly refuse to continue their subsidies to the West India and Panama Telegraph Company. His Majesty's Government have announced their intention of proceeding with the alternative policy of a direct cable from Bermuda to Barbados, and negotiations have for some time been in progress with a view to its construction. Mr. Wood is firmly convinced of the necessity of carrying this scheme through, and strongly urges Mr. Churchill to expedite a decision by the Government. He rejects wireless.

"I think," he says, "the West Indian Colonies should realise that, apart from the difficulty of guaranteeing reliable wireless communication for commercial purposes, unless stations of the order of 50 kilowatts are erected in Bermuda and Barbados, and subsidiary stations erected in each of the Colonies to which communication is desired, this system of communication by itself would not afford adequate facilities. Moreover, serious administrative difficulties would be involved unless all the stations were administered by a single commercial company, and even then the service would be subject in time of war to far greater restrictions than in the case of cables. For these reasons, His Majesty's Government have expressed the opinion that wireless should not be developed in the West Indies, except for ship and shore work, and for the purpose of assisting trade during a breakdown of the cables." The traffic of the West Indies would be insufficient for two systems.

As to CURRENCY, Mr. Wood hoped to hear an expression of the views of the West Indies regarding Colonel Ivan Davson's proposals at the West Indian conference. In one or two places some interest was displayed, but the aspect more especially mentioned was the possible addition to the Colonies' financial resources by the receipt of a proportion

of the seigniorage on minting. The matter has already been referred to a Departmental Committee.

PASSENGER STEAMSHIP COMMUNICATION.—The present position is reviewed and the hope expressed that the trial voyage made by Elders & Fyffes to Barbados and Trinidad, en route to Jamaica, may be repeated. Mr. Wood was greatly impressed by the importance of adequate communication both with the United Kingdom and between the islands, and this was strongly represented to him in nearly every Colony which he visited. Personally, he would like to see a service instituted between Canada, the West Indies, British Guiana and the United Kingdom, returning by the same route; but this would not be sufficient unless a direct service between Jamaica and Trinidad or Barbados could also be arranged. With regular, easy, frequent and cheap communication, many of the problems which now make the government of the West Indies difficult would be removed, and the assurance of such communication would do much to assist economic and political progress.

Assistance towards the promotion of **AGRICULTURAL BANKS** was solicited in many Colonies, and Mr. Wood undertook that, if a reasonable scheme could be framed, involving only the provision of local capital, the Colonial Office would deal with it in no pedantic manner, but would give whatever assistance might lie within their power. The success of the Agricultural Credit Societies in St. Vincent shows what can be done by local effort, and should be an encouragement to other Colonies to proceed on similar lines. If any information on the subject is desired, reference should be made to the reports on the working of the Raiffeisen system, which will be found in [C. 7582 and 7896] of 1895, and in the report of the working of the Imperial Department of Agriculture which was laid before Parliament in 1906 ([Cd. 2901], page 169).

In Trinidad the Agricultural Society asked that, in order to prevent peasant owners from being wiped out by excessive charges on advances, a new usury law should be enacted, putting a maximum of 15 per cent. upon the charges allowed for interest. The arguments against artificial limitation of the rate of interest and the mischief which may ensue are well known, but Mr. Wood considers that the observations of the local Government should be obtained on this proposal.

The section dealing with **MEDICAL AFFAIRS** is subdivided under the headings Public Health and Sanitation and Medical Services. Under the former, it is stated that the general conditions of health and sanitation in the West Indies are not yet satisfactory. The vital statistics taken over a period of years reveal a rate of mortality, more especially among infants, that is far too high. Thanks to strict quarantine regulations, yellow fever is now unknown in the islands, where fifty years ago, or even less, its annual toll was heavy. There remain, however, malaria, dysentery, ankylostomiasis, hookworm, yaws, typhoid, tuberculosis, and venereal diseases. The last named are rife, and apart from the mortality directly attributable to them, they are having a very serious in-

direct effect on the powers of the population to resist other endemic or epidemic diseases. A very considerable percentage of the population is infected with hereditary or contracted syphilis, and very little headway has yet been made against the further spread of venereal diseases. The standard of sexual morality is low among all classes of the West Indian communities, and in many Colonies it is difficult to convince people of the serious nature of these scourges and the urgent necessity of combating them more vigorously.

“Important as is the quality of the medical service, and valuable the help that Governments can render, it is, I think, true to say that in health and sanitary matters there is a temptation to place too much reliance on the medical staff and on the Government, and too little upon personal initiative and voluntary co-operation. The surest way to improve sanitary conditions is by educating the community from the schools upward in the need of adopting more sanitary habits. At present it is very often—e.g. in British Guiana—the bad sanitary conditions obtaining in the schools which discourage rather than assist the necessary advance in these matters. The majority of tropical diseases are either mosquito-borne, or the results of insanitary habits, eating uncleanly, or drinking contaminated water. Many of the members of the various legislatures are full of desire for improved health and sanitation, but in too many cases their appeal is to the Government for the provision of funds for expenditure on operations, such as drainage or the digging of wells, and too little attention is paid to the result which might be attained by the rousing of public opinion, and by the determination among the more enlightened element of the population that each individual should be made to realise the importance of personal effort. There is no use in providing a well and then finding that the persons using it are allowing it to become contaminated with sewage. On many points, on which experience has proved that adequate remedies already exist and await application, I found little disposition to take advantage of them. In hardly any West Indian Colony were houses screened against mosquitoes, whereas Americans and the companies influenced by American ideas, invariably provide such protection for their European employees. I would urge employers, owners of house property, school managers, to assist in every way possible, if only in their own interest, to improve the standards which now obtain.”

Mr. Wood then reviews the position of the local medical services, and warmly advocates the payment of better salaries in order to attract a good class of candidates for first appointments, and to increase the supply of lucrative appointments to which senior officers can be transferred by way of promotion.

Educational affairs then receive attention, and here Mr. Wood summarised the existing position. In British Guiana the sanitation of the schools was quite inadequate and the danger commented on; also the loss of efficiency due to defective eyesight, which might be removed by use of spectacles if medical inspection were instituted.

In British Guiana and Trinidad the illiteracy of the East Indian in English and the multiplicity of Indian languages spoken formed a serious drawback to the East Indians themselves, and every effort should be made to enable the rising generations to become literate in English. The East Indians, the backbone of the agricultural industry in both Colonies, are the underdogs politically, when compared with the negroes, owing to the inferior educational conditions of the latter. As regards curriculum and text books, dependence on English models and English publications is the rule. There is much local history and so much of history in the local natural history, agriculture, etc., that it should be easy to produce a good West Indian Reader which would aim at teaching children the common history and the common life and problems of the British West Indies as a whole.

In conclusion, Mr. Wood advocates the holding of Intercolonial Conferences on Education periodically, and of the temporary employment of an Educational Adviser and Intelligence Officer for the West Indies generally.

The remainder of the report deals with questions affecting the principal Colonies, a notable feature of it being a section devoted to the development of British Guiana, to which reference will be made in next issue.

COLONIAL OFFICE MISSION.

Lecture by Hon. W. Ormsby Gore, M.P.

The Hon. W. Ormsby Gore, M.P., whose articles, written as the outcome of his recent tour in the West Indies, and published in pamphlet form by The West India Committee, excited much interest, read a valuable paper on the British West Indies at a meeting of the Royal Colonial Institute on the 18th June, Sir Owen Philipps, M.P., G.C.M.G., presiding.

Referring to the Colonial Office Mission, the speaker said that it had the effect of bringing to the attention of the representatives of the Imperial Government many matters of general and local interest in a considered form by different sections of the inhabitants in the colonies visited, and it would be impossible to exaggerate the value of the personal touch which such a Mission was able to bring to the solution of the difficulties. Not its least valuable function was the discussion which took place between the Mission as representing the Colonial Office and the responsible administrators on many questions of policy, which had formed the subject of lengthy written communications to and from London.

The particular reason which led the Secretary of State to select the British West Indies for the first mission of this kind was to be found in the representations that had been received during 1921 expressing the growing demand in several of the West Indian Crown Colonies for the bestowal of a measure of representative government.

After referring to Mr. Wood's recently published Report, which he characterised as a very valuable mine of information on the various problems of the

colonies visited, and in its principal section a very valuable contribution to the study of constitutional development of the Empire which might have important bearings upon the future of Crown Colony government elsewhere, Mr. Ormsby Gore stated that he proposed to concentrate on the political and constitutional questions which had been raised. He would not deal further with economic considerations beyond saying that the collapse of the European element in those communities if the sugar industry were allowed to become extinguished could not fail to have very far-reaching effects upon the future character of the Colonies, and he hoped that when the British public were brought to realise the present menace of foreign control of the bulk of the world's sugar production and its refining, they would bear in mind the necessity in their own interests of maintaining somewhere within the British Empire, and particularly in the British West Indies, a British sugar industry.

Continuing, he said that in none of the Colonies had it been suggested that anything in the nature of responsible self-government could or should be introduced. The fundamental constitutional problem, therefore, really resolved itself into how far it was possible to concede to local public opinion a voice in the direction or even the control of the official Government. Mr. Ormsby Gore then proceeded to examine the present West Indian constitutions in detail, remarking that the most difficult case with which they had had to deal was undoubtedly that of Trinidad. He was emphatic that any attempt to introduce communal representation would tend to divide rather than unite. He concluded by saying that the growth of strong local patriotism, in which each and all sections of the community could co-operate, without distinction of race and colour, was a very good thing, and by far the best safeguard against the dangers of racial consciousness and racial hostility. But over and above this, he would place the preservation of the Imperial idea, the idea that the British Empire was a unit making for human progress and prosperity which was based not upon the domination of any one race, colour or creed, but on the common loyalty of increasingly self-governing communities to one King-Emperor.

The following took part in the discussion which followed the reading of the paper: The Marquis of Salisbury, G.C.V.O., K.G., Sir William Allardyce, K.C.M.G., Sir Edward Davson, Mr. Ben H. Morgan, Mr. R. à Ababrelton, Dr. D. E. Anderson, Dr. H. A. Moody, and Dr. R. Wellesley Bailey.

Those present included Lady Allardyce, Mr. and Mrs. Algernon Aspinall, Mr. D. Baird, Mr. Claude Berthon and Mrs. Berthon, Major J. R. Boosé and Mrs. Boosé, Mr. G. M. Boughey, O.B.E., Lt.-Col. J. H. Collens, V.D., and Mrs. Collens, Lady Davson, Mr. J. Farrow, Sir G. T. Gilbert-Carter, K.C.M.G., and Lady Gilbert-Carter, Mr. Thomas Greenwood, Mr. J. M. Hattrick, Mrs. E. B. Jarvis, Miss Audrey Jeffries, Mr. Gifford Knight, Sir Godfrey Lagden, K.C.M.G., Mr. Harcourt Malcolm, O.B.E., and Mrs. Malcolm, Dr. G. B. Mason and Mrs. Mason, Captain F. F. C. Messum, Mr. W. J. Mirreles and Mrs. Mirreles, Mr. H. F. Previté, Mr. J. Stanley Rae, and Mr. E. Salmon.

THE SUGAR PREFERENCE.

The following letter, which was addressed by The West India Committee to the Secretary of State for the Colonies, in March last, on the subject of Imperial Preference and the Sugar Duties, is now published for general information. It is believed that the representations of the Committee resulted in the maintenance of the preference on sugar for the current year at £3 15s. per ton for 96 deg. test, for had the duty been reduced, as it is believed was generally intended, the preference would *ipso facto* have been reduced, unless the Cabinet had agreed to its being increased from one-sixth.

The West India Committee
(Incorporated by Royal Charter),
14th March, 1922.

Sir,—We do not doubt that Mr. Edward Wood, M.P., whose recent visit to the British West Indies and British Guiana on your behalf has been so greatly appreciated, will have already informed you as to the serious position in which the sugar industry in those Colonies has been placed through a variety of circumstances arising out of the War.

2. For some months past the price of sugar has remained at a figure admittedly below that of the cost of production in the principal sugar producing countries of the world. This is attributable to the falling off in consumption owing to a variety of causes, including the high sugar duties in consuming countries, adverse exchanges and the burden of taxation which has greatly reduced the purchasing power of the people.

3. The world's total production of sugar for the year now current is estimated at 16,488,560 tons as compared with 18,436,478 tons in 1913-14. The falling off is mainly in the European beet sugar producing countries, the production of cane sugar having increased by 1,701,524 tons since 1913-14.

4. Encouraged by the tariff preference which it has enjoyed in the markets of the United States since the year 1899-1900 the production of sugar in Cuba has gone rapidly ahead from 308,543 tons in that year to 3,936,040 tons last year. Of last year's crop, according to Messrs. Willett & Gray's *Weekly Statistical Sugar Trade Journal* of February 22nd, 1922, upwards of 600,000 tons had yet to be marketed on that date and with the new crop, estimated by Himely to produce 3,581,000 tons, now being reaped there is a glut of sugar which cannot as yet be absorbed.

5. The situation has been aggravated by the tariff policy of the United States, which, while admitting to their markets the sugars of Porto Rico, the Philippines, Hawaii and the American Virgin Islands free of duty, and exempting cane sugar produced in Louisiana and domestic beet sugar from the payment of any duty whatever, extends to Cuban sugar a tariff preference of 40 cents per 100 lbs. The sugar produced in the United States territories now amounts to 2,250,000 tons, which is protected to the extent of \$2 per 100 lbs. for 96 deg. test sugar against foreign sugar or about 10s. 6d. per cwt., and of \$1.60 per 100 lbs. against Cuban sugar.

6. The Cuban crop for the year now current is, as already stated, estimated at 3,581,000 tons and it will thus be noted that the total production of sugar protected by, or enjoying a preference in, the United States is estimated to reach this year 5,831,000 tons, whereas the consumption in that country is placed at 4,100,000 tons only, thus leaving a substantial balance

of sugar which, if produced, must be exported elsewhere.

7. In this connection we feel it incumbent upon us to draw your attention to what would appear to be the policy of American financiers and refiners, who are working in combination in respect of sugar. Under the Act of Congress known as the Webb Act, an organisation entitled the Sugar Export Corporation has been formed which aims at refining surplus Cuban sugar in bond for the purpose of invading European markets. We enclose sundry cuttings relating to the operations of this combine.* Having regard to the disastrous effect which somewhat similar combines on the Continent of Europe had on the British Colonial sugar industry immediately prior to the abolition of bounties by International Agreement embodied in the Brussels Convention of 1902, the operations of the Sugar Export Corporation should, we respectfully submit, be subjected to careful scrutiny by His Majesty's Government. We feel that we should be remiss in our duty if we failed to call your attention to the menace which threatens the British Sugar industries from foreign combines.

8. With regard to the immediate situation we would point out that the sugar industry of the British West Indies and British Guiana has been further prejudiced by the falling off in the demand for rum—an important by-product of sugar—as the result of the present high spirit duties in the United Kingdom, which amount to approximately £491 per puncheon or 8s. 5½d. per quart bottle, a figure which places this popular beverage beyond the reach of the working man—the habitual consumer. Deliveries of rum for home consumption in the United Kingdom last year amounted to 2,036,532 gallons as compared with 3,331,007 gallons in 1913, while stocks have reached the abnormal figure of 11,689,000 proof gallons. As a result of this state of affairs it has been found necessary to suspend altogether the manufacture of rum on many estates.

9. In consequence of these circumstances the outlook in the British West Indies and British Guiana is regarded as serious and it is believed that the production of sugar in those Colonies will be jeopardised unless immediate steps are taken to afford assistance to the industry to enable it to tide over the present critical period.

10. We have noticed with satisfaction the announcement made by Mr. Edward Wood that His Majesty's Government had agreed to guarantee the continuance of the existing rate of preference to British West Indian producers for the definite period of ten years, for we recognise in this the desire to restore confidence in the sugar industry of the British West Indies and British Guiana and to encourage the inflow of British capital which is so greatly needed in those Colonies. We would, however, point out that it is feared that the mere guarantee of the continuance of the present percentage of preference, namely one-sixth off the duty, would be altogether insufficient to restore confidence in the industry, for if within the next few years it were decided to reduce the sugar duties say by one-half, the preference of £3 15s. on 96 deg. test sugar which would be correspondingly reduced, would become one of £1 17s. 6d. only and this would be altogether inadequate.

11. In the circumstances we desire most earnestly to urge that the rate of preference to be maintained for the ensuing ten years may be 33½ per cent. off the general duty and that an undertaking may be given that should the sugar duties be reduced during that period

*Not reprinted.

the substantive preference on British sugar shall be maintained at the present figure, namely, in the case of 96 deg. test sugar, £3 15s. per ton. It has, we understand, been suggested that if such a concession were made it would prevent the Chancellor of the Exchequer reducing the sugar duty below the value of the present preference during the continuance of the undertaking; but such an objection could be overcome if it were agreed that in the event of it being decided to reduce the sugar duty to such an extent or to remove it altogether the question of the maintenance of the industry might be the subject of fresh negotiations.

12. In support of our request we would respectfully point out to you, Sir, that since last year the British West Indies and British Guiana have been extending to goods imported from the mother-country, a tariff preference amounting to 50 per cent. in Barbados, British Guiana and Trinidad and 33½ per cent. in British Honduras, the Leeward Islands and the Windward Islands, while Jamaica has pledged herself to give a preference of 25 per cent. (a Bill to that end having been accepted in principle and being now in course of passage through the Legislative Council) and is already giving one of 40 per cent. to 50 per cent. on British cotton goods. According to the Board of Trade Returns, the British West Indies and British Guiana imported from Great Britain and Ireland during 1921, articles produced and manufactured in the United Kingdom to the value of over £5,000,000, whilst the imports into Great Britain of British Indian sugar, cacao and rum—the three principal staples—were valued at £4,696,653. It could not, therefore, be said that the British West Indies and British Guiana were asking for all and giving nothing in return.

13. In conclusion we would submit, Sir, that in putting forward these representations we are requesting His Majesty's Government to do less for British Colonies than the United States is already doing for the territories under their own flag. We would add with full sense of responsibility that it is impossible to ignore the serious effect which any set-back in the British sugar industry would have in Colonies whose residents see the industry in the neighbouring Islands under a foreign flag prospering under the generous treatment afforded to them by their mother-country.

Trusting that you will be pleased to bring these representations before the attention of His Majesty's Government and that they may receive favourable consideration. We have the honour to be, etc.,

R. RUTHERFORD,

Chairman.

ALGERNON ASPINALL,

Secretary.

Mr. Churchill, acknowledging this letter on March 24th, stated that the representations of The West India Committee were receiving his careful consideration.

The West India Committee have received the thanks of various organisations in the West Indies for putting forward the case of sugar. It was recorded in the Minutes of the British Guiana Sugar Planters' Association of May 3rd that that body "expressed its high appreciation of the action taken by The West India Committee in this matter and the excellent exposition of the case of the British Guiana and West Indian sugar industries."

A summary of Mr. Hummel's valuable report on the Timbers of British Honduras is unavoidably held over.

THE WEST INDIA COMMITTEE.

At a meeting of the Executive held on June 8th, Mr. Robert Rutherford was elected Chairman on the motion of Mr. E. A. de Pass, seconded by Mr. H. F. Prévité, and Mr. Cyril Gurney Deputy-Chairman on the motion of Mr. E. A. de Pass, seconded by Lieut.-Colonel Ivan Davson. On the motion of Mr. H. J. J. Freeman, seconded by Lieut.-Colonel H. A. Clifton, the following were appointed Hon. Treasurers: Mr. William Gillespie, Mr. Thomas Greenwood, Mr. E. A. de Pass, and Mr. H. F. Prévité.

The 23 candidates whose names appear below were admitted to membership of The West India Committee, bringing the total number elected this year up to 107:—

Names.	Proposers and Seconders.
Mr. A. L. Malabre (Jamaica).	Mr. L. de Mercado.
Mr. Henry Thorne (British Guiana).	Mr. W. Baggett Gray.
Mr. C. D. Johnston, M.D. (Jamaica).	Mr. A. Hirsch.
Mr. J. Gonsalves (British Guiana).	Mr. W. Gillespie.
Mr. Louis Franklin (London).	Mr. R. B. Daly.
Mr. John F. L. Lamport (British Guiana).	Mr. E. A. de Pass.
Mr. A. E. Muschett (Jamaica).	Mr. M. P. Comacho.
Mr. J. F. Gore (Jamaica).	Mr. H. de Cambra.
Mr. W. Wells Palmer (St. Lucia).	Mr. Archibald Gordon.
Mr. F. Deighton Rogers (St. Lucia).	Messrs. John Leckie & Co., Ltd.
Messrs. Plaistowe & Co., Ltd. (London).	Mr. Leonard Lywood.
Mr. H. M. Berkeley (London).	Mr. John Macdonald.
Mr. D. C. Hylton (Jamaica).	Mr. W. Baggett Gray.
Major Claud J. Low, D.S.O., T.D. (London).	Mr. A. Spooner.
Mr. G. E. Bodkin, B.A. (London).	Mr. W. Baggett Gray.
Mr. J. M. Hattrick (London).	Mr. A. Spooner.
Major H. C. Corlette, O.B.E. F.R.I.B.A. (London).	Mr. Archibald J. Brooks.
Mr. H. M. Brandon (Jamaica).	Mr. A. R. C. Mallett.
Mr. Kenneth S. Longley (Trinidad).	Mr. Archibald J. Brooks.
Mr. H. J. B. Walcott (Jamaica).	Mr. Gregor McG. Peter.
Mr. K. McMahon de Roux (Jamaica).	Mr. F. N. Martinez.
The Hon. Richard Nosworthy (Dominica).	Mr. N. Malcolmson.
Mr. Manoel D'Andrade (British Guiana).	Mrs. Bromley.
	Mr. C. Gurney.
	Mr. E. A. de Pass.
	Mr. Cyril Gurney.
	Mr. H. F. Prévité.
	Lt.-Colonel Ivan Davson, O.B.E.
	Lt.-Colonel Ivan Davson, O.B.E.
	Mr. Thomas Greenwood.
	Mr. A. W. Thomson.
	Mr. H. F. Prévité.
	Mr. Cyril Gurney.
	Mr. H. F. Prévité.
	Mr. E. A. de Pass.
	Mr. W. Fawcett, B.Sc.
	T. Geddes Grant, Ltd.
	Mr. H. F. Prévité.
	Mr. W. H. Farquharson.
	Mr. E. H. Farquharson.
	Mr. S. M. de Roux, J.P.
	Mr. E. A. de Pass.
	His Honour Chief Justice H. K. M. Sisonett.
	Mr. Cyril Gurney.
	Mr. H. de Cambra.
	Mr. John Fernandez.

WIRELESS TELEPHONY.

Grand Turk a Pioneer.

"Broadcasting" by wireless telephony is already a possibility that is coming nearer to the West Indies. Apropos of the article that appeared in these columns on April 27th on the subject of wireless telephony and telegraphy, the CIRCULAR is now able to announce that the first wireless telephone system has actually been established in the British West Indies. The honour of being the pioneer on this occasion is due to the island of Grand Turk, which is now linked by wireless telephone with the islands of South Caicos and Salt Cay, distant from it twenty miles and eight miles respectively.

The system is in full working order, and can also be used for wireless telegraphy, in which capacity it has a sending range of 150 miles. It proves (so the CIRCULAR is informed) a great boon, enabling as it does the people of Grand Turk to know when steamers are approaching their shores or when they leave Puerto Plata, Santo Domingo, for their roadstead. Mr. G. Whitfield Smith, I.S.O., the Commissioner of the Turks and Caicos Islands, is certainly to be congratulated upon this development.

"COCOA" AND "CHOCOLATE."

A Distinction with a Difference.

A correspondent asks what difference there is between the two distinct beverages known respectively as "cocoa" and "chocolate." That the latter is the richer concoction of the two is common knowledge, but beyond that little is known by the public. Here, then, is the answer to the enquiry.

Cocoa or cocoa powder is made by grinding roasted cocoa nibs, subjecting the warm semi-liquid mass to hydraulic pressure, thus removing a large proportion of the cocoa butter. The pressed cake is then broken up and sifted through fine silk. While the ground cocoa mass contains 54 per cent. of cocoa butter, the cocoa powder (or essence) should contain about 25 per cent.

Chocolate or drinking chocolate is a preparation of the ground cocoa mass described above, mixed with sugar. The blend of beans is selected with a view of obtaining a mild chocolate taste, to contrast with the stronger and fuller taste of a cocoa essence.

During the present year 107 new members of The West India Committee have been elected. Of these, 72 reside in the West Indies, in the places shown below:—

Trinidad	21	St. Kitts	2
British Guiana ...	15	Antigua	1
Jamaica	14	British Honduras	1
Berbados	6	Montserrat ...	1
St. Lucia	6	St. Vincent ...	1
Dominica	3	Tobago	1

A QUAIN COCO-NUT PALM.

Can any of our readers account for the cork-screw shape assumed by the coco-nut palm depicted on this page? The possibility of the palm having been struck by a succession of hurricanes suggests itself; but this must be ruled out, since it stands in British Guiana—outside the hurricane zone. A somewhat similar freak palm exists—or did exist—in British Honduras, and was depicted in *The West*



A Freak Coco-nut Palm.

This curious palm "gyres and gimblecs" in British Guiana, where it was photographed by Mr. G. E. Bodkin. It is over 60 feet high.

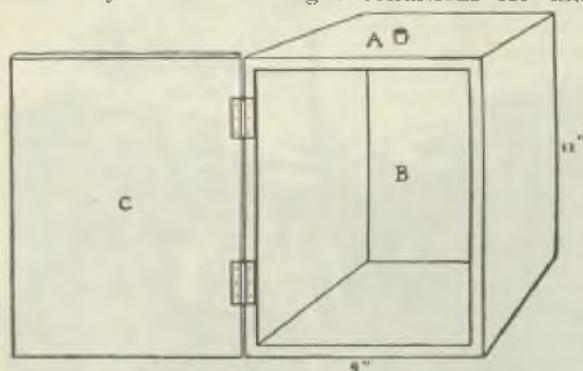
INDIA COMMITTEE CIRCULAR of October 11th, 1910. The photograph of the British Guiana freak palm from which the illustration on this page is reproduced was taken by Mr. G. E. Bodkin, B.A., F.E.S.

MAJOR THE HON. J. A. BURDON, C.M.G., Administrator of St. Kitts-Nevis, who has been spending his leave in London, returns to the Presidency in the s.s. *Councillor* on July 21st.

Mrs. HAROLD FRERE gave birth to a son at Tunbridge Wells on June 8th. Mrs. Frere is the only daughter of Sir John and Lady Harrison, of Georgetown, British Guiana, who will, like Mr. and Mrs. Frere, be the recipients of many congratulations upon this happy event.

DEATH TO THE MOSQUITO.

The United States Bureau of Entomology recommends a new trap for mosquitoes. According to a leading article which appeared in *The Times* of May 10th, experiments in the use of odoriferous substances led to no useful results, but it has now been found that a joint of stove-pipe, heated by an alcohol lamp, attracted about as many mosquitoes as were attracted by persons in the vicinity. Heat was the lure, and the range of heat at which the maximum response occurred was from 90 to 110 degrees Fahrenheit, in close correspondence with the temperatures radiated by a living human body. Above or below that range, the mosquitoes paid no attention to the lure. The insects showed greater cleverness than flies in escaping even from complicated traps after they had been caught, and it is necessary to add some poisonous substance to the contrivance. It would probably be hopeless to expect control of mosquitoes in the open country by traps on the American pattern. Fortunately, however, the species most dangerous to man, the carriers of malaria, yellow fever, and so forth, are local in their habits. They seldom travel more than a few yards. The adult insects require to visit water, not merely to find the right conditions for their



Prof. Maxwell-Lefroy's Mosquito Trap.

eggs and larva, but for drinking purposes. Considerable success has been obtained by the simple method of removing old bottles or cans, repairing water-spouts, covering cisterns, and oiling pools, so that a house and garden without these local concessions to the habits of the insects may enjoy relative immunity, even in an infested area. On the other hand, a house may suffer from the carelessness of its neighbour, and may enjoy an additional security from this new method. Many suburban villas have both mosquitoes and kitchen gas-fires; it should not be difficult to take a lead from the chimney and fit it up as a heat-lure.

Apropos of the above, it may be useful to republish an illustration of Mr. H. Maxwell-Lefroy's mosquito trap, which originally appeared in *The West India Committee Circular* of August 17th, 1909. The trap, which is depicted on this page, only catches the *Culex fatigans*, and other mosquitoes which like to rest in shady places during the day. Unfortunately, the *Anopheles*

and *Stegomyia fasciata* do not fall within this category. It will be seen that the trap is quite easy to make. The inside measurement is 9 in. by 9 in. by 12 in. high. The inside, *a*, must be lined with some dark material, such as green baize, and should have tin on the floor. It should when ready be placed in a shady corner of the room as high up as possible. Bookshelves and hangings should then be dusted, and the mosquitoes will seek refuge in the box. The door *c* is then closed, and a teaspoonful of benzine or petrol is poured through the orifice *a*, which is then closed with a cork. In five minutes the insects are stupefied, and can be shaken out and burnt.

The best sport with this trap is obtainable soon after sunrise and at midday.

ST. VINCENT ARROWROOT.

Owing to the present state of the arrowroot market the planters in St. Vincent have curtailed cultivation. Some shippers have as many as three years' crops lying either in the island or London unsold and the outlook for the immediate future is in no way encouraging. This conclusion is reached by the Committee of Management of the St. Vincent Arrowroot Growers' and Exporters' Association, of which Mr. H. Egerton Ellis has succeeded the Hon. J. Elliot Spout as Secretary, in their report for the year ended December 31st, 1921, which states:—

"No fixing of prices for the London market took place during the year, as that market still continued in a state of stagnation, owing to economical conditions. The prices fixed for Canada did not result in any material business being done in consequence of shippers from a neighbouring island having purchased large quantities during the time prices were inflated; their efforts to sell these quantities in the United States, a limited market, resulted in their offering St. Vincent arrowroot at a price far below cost of production. Shipments during 1919, 1920 and 1921 were 11,112, 12,702, and 10,021 barrels respectively. No advertising was attempted during the year."

A proposal to amalgamate the Association with the St. Vincent Cotton Growers' and Agricultural and Commercial Society was dropped on the formation of a local Chamber of Agriculture and Commerce.

SIR CHARLES O'BRIEN, Governor of Barbados, accompanied by Lady O'Brien and his daughters, has arrived in England on a few months leave of absence, and his address for the present will be Alum Chine Lodge, Bournemouth.

SIR JOHN HARRISON is, unfortunately, still an invalid, and, it being improbable that he will be fit to return to duty for some little time, has been compelled to obtain an extension of leave for three months. He and Lady Harrison, who, one regrets to learn, is far from well, are now at Cumberland Villa, Cumberland Walk, Tunbridge Wells.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The pineapple industry of Hawaii threatens to usurp the place of sugar as the premier industry. The 1922 pineapple crop is expected to realise \$25,000,000, while sugar will not bring in more than \$40,000,000.

* * *

A good instance of surgical skill resulting from experience actuated by liking is that of the New Zealand Kca. This bird is fond of sheep's kidneys, and extracts the juicy kidneys from browsing sheep with unerring dexterity, but with fatal results to the sheep.

* * *

Canada produces a small amount of apalite, the mineral phosphate, mainly in the province of Quebec, as a by-product of the mica mines. It contains about 86 per cent. of tricalcium phosphate, with about 7 per cent. of calcium fluoride. In 1910 the production was 1,478 tons; in 1919, 24 tons.

* * *

An Australian planter proposes to use eucalyptus oil for the destruction of cane grubs, it being claimed that the oil will not injure the cane, while killing the grubs. The oil is obtained by distillation from the Australian blue gum tree, and may be applied from a tank connected with the plough when furrowing.

* * *

The extraction of vegetable oils by crushing is by no means of recent date. Vitruvius, in an article written two or three thousand years ago, mentioned oil presses worked by very long levers, and Pliny, about 23 A.D., gives a description of an oil press consisting of a set of stones, and used for grinding olives.

* * *

The *Journal* of the Jamaica Agricultural Society states that occasionally in Jamaica fowls with legs so short that their bodies are almost on the ground are come across. This, it says, is characteristic of a breed called "Scotch Dumpies," and it is not known when the last specimens of the breed were imported. They are best of sitters and mothers, in spite of their ungainly appearance.

* * *

The *Journal* of the Jamaica Agricultural Society states that there is hardly a field of cacao trees in Jamaica where there is not a terrible mixing up of varieties resulting from planting the first pod that comes to hand. The idea also obtains that the lowest pod on the trunk is the best for planting, and the planter therefore often selected the lowest pod from any or every tree, without reference to variety or ability of the parent tree to bear heavily.

* * *

A great problem dealing with the formation of nitrogen compounds in plants, such as alkaloids and proteins, has, says Prof. Baly, been solved. In the Liverpool University laboratories it has recently been discovered that the nitrates which the plants absorbed from the soil combined, in the form of nitrites, with the active formaldehyde. Alkaloids have been made, as well as those amino-acids known to be the basis of proteins, the production of which

is only one stage further, and there is every reason to believe that this stage will soon be reached.

* * *

Observations made on the work done by bees, carried out in New York State, showed that the average working hours were from 8 a.m. to 6 p.m.—a ten-hour working day. The "nectar" was collected from white sweet clover, and the number of trips made ranged from below 12 up to 24, the average being 18 trips. The longest period recorded for the round trip was three hours, but the average was 45 minutes. The average time spent in collecting was 34 minutes. The carrying capacity of robber bees was 90 per cent. of their weight, of swarm bees, 75 per cent.

* * *

In an article especially written for *The Fertiliser and Feeding-Stuffs Journal* it is stated that Holland has never enjoyed (?) the old-time "squire and farmer" conditions of social England, which have but just disappeared, with the result that for centuries Dutch agriculture has had to be severely self-supporting on a strictly business basis. One result has been that the Dutch farmer has completely organised himself into co-operation throughout the length and breadth of his country. The various Unions combine to buy their fertilisers and to sell their produce. Agricultural banks have been founded to assist, on an economic basis, the farmer, and credits of from six to nine months are readily available.

* * *

The development of a colony of bees in spring depends, says the *Agricultural Gazette* of New South Wales, upon three factors—the queen, the supply of nectar and pollen, and the combs contained in the brood chamber. A colony in which the queen is exhausted, whom the bees have failed to supersede, should be marked for re-queening at the first opportunity. In the case of supplies of honey and pollen not being available in the hive, or not forthcoming from natural resources, the colony should be fed. It is extremely important also that there should be good combs in the brood chamber, as no queen can prove her worth unless the chamber is equipped with combs containing a maximum number of worker cells. In the spring, therefore, the opportunity should be taken of removing combs too old or which contain too many large cells.

* * *

In the old Egyptian days the ibis was held sacred, and it is not an error to assume that this was due to its power of destruction of locusts, the insect plague of Egypt. In his "Wild Life in Australia," Mr. Le Souef gives remarkable evidence of its value in this respect. In one colony of the straw-necked ibis in that country there were estimated to be 200,000 adult birds. A number of these were shot and their crops examined. Each crop was found to contain on the average 2,410 young grasshoppers, giving a daily consumption of 482,000,000 grasshoppers for the 200,000 birds. The flocks work most systematically. When one patch of land is cleared of insects, the flock clears off to another, returning to the first when it is again populated. The ibis also dotes on caterpillars, and wire-worms and other grubs are also favourite items of food with it.

"HEAT HAZE" OR "MAY DUST"?

Sir Robert Schomburgk, in his "History of Barbados," records that during the eruption of the Soufrière in St. Vincent in 1812, ashes ejected from the crater fell over Barbados, causing at first not a little consternation. This phenomenon was repeated in 1902, when, during an eruption, ashes were carried against the Trade Wind by an upper current of air for one hundred miles from St. Vincent to Barbados, on which island they were deposited to a depth of several inches. On both occasions the ash was called "May Dust," and in passing it may be remarked that it is contended that Barbados owes its present soil to some extent to prehistoric precipitations of this dust.

The fall of "May Dust" is recalled by reports from various parts of the Lesser Antilles of an extraordinary mist which prevailed there in the middle of May. In Tobago it was regarded as what the Negroes call "heat haze." Mr. G. H. King, writing from St. Kitts, is more definite. He says:—

"The weather here has for some time past been most unusual. In place of the bright sun and blue sky of the tropics, there has been a haziness like a Scotch mist intensified. A thin smoke seems to pervade the atmosphere, and through it the hills and mountains, which usually stand out clear and well defined, look like shadows of themselves, and at a little distance cannot be seen at all.

"Through a curtain of sombre-looking mist, the rising sun glimmers like a yellow moon, and all day his tropic brilliance is obscured. So noticeable has been this phenomenon that persons of all classes are asking the cause. The superstitious see in it a token of impending disaster, the weather-wise predict severe drought, and the religious minded consult their priests. The more reasoning ones recall the atmospheric conditions that followed the eruptions of Mont Pelé twenty years ago, and ascribe the phenomenon to the most natural cause, namely, a fall of volcanic dust. There has, however, been no eruption within a long distance of these latitudes, and one can only suppose that to some far distant explosion the present dust fall can be ascribed.

"Towards the end of April, that is nearly three weeks ago, Mount Etna, in Sicily, was reported to be in violent eruption, and it is quite conceivable that the fine dust driven upwards in that explosion and reaching the upper strata of the atmosphere has been circling about, and is now being deposited at a distance of some 4,000 miles from the scene of its expulsion from the volcano. This phenomenon, which is quite well understood by the scientific world, is a matter of wonder to the ordinary mind. An air wave generated by the eruption of Mount Krakatoa in 1883 is said to have encircled the globe fully seven times, and it can well be understood that erupted dust, travelling on such a wave, might go a tremendous distance before succumbing to the force of gravity and settling on the earth.

"Could the present dust fall be properly identified as originating from Etna or elsewhere, valuable data might be obtained with regard to air waves and air currents which could be applied to the

(Concluded at foot of next column.)

TWO USEFUL ORGANIZATIONS.

The fifth report of the Civic Circle of the Lyceum Club in Barbados shows that that enthusiastic and public-spirited body of ladies has been continuing its good work of beautifying Bridgetown and its surroundings by planting and maintaining gardens and restoring monuments—those commemorating the Per centenary of the island at Hole Town and the memorial of the 36th Regiment and the Royal York Rangers, near the Savannah—besides carrying out such useful social service as the provision of educational cinematograph films and interesting themselves in the important question of film censorship.

It is satisfactory to learn that under the auspices of the Circle, whose attention was called to the matter by THE WEST INDIA COMMITTEE CIRCULAR, the restoration of the old Naval and Military Cemetery at Needham's Point is progressing, a wall being in course of erection round the graveyard as a preliminary step. From the personnel of the Circle which is given, it appears that the officers now are: President, Lady Gilbert-Carter; Vice-Presidents, Miss Law, Miss M. Packer, and Lady Clarke; with Miss R. Browne Hon. Secretary and Miss Sander-son Hon. Treasurer.

The financial statement accompanying the report shows that the funds available are extremely modest, and by no means commensurate with the importance and work of the campaign that is being carried on. The work of these ladies should certainly receive a greater measure of support.

The Victoria League of Jamaica, whose patriotic aim it is to promote mutual understanding, help, and intercourse between all citizens of the British Empire, held its annual public meeting on May 10th. The Bishop of Jamaica, President of the League, took the chair, and those present included the Governor and Lady Probyn, Hon. Col. H. H. Bryan and Mrs. Bryan, Hon. W. A. S. Vickers, Mrs. H. G. de Lissac, Mrs. Charlton Thompson, Mr. Noel de Motagnac, and Mrs. M. E. Spooner, who has been acting for some time as Hon. Secretary.

The Annual Report, which was adopted, is the record of a useful year's activities, which included the entertaining of the officers and men of the British and Canadian Navies when they visited the island, the former in November, the latter in July last year. An interesting experiment was also started in arranging for correspondence to be carried on between children in Jamaica and children in Australia. In the course of his speech, Sir Leslie Probyn told the story of a hard-worked Bishop whose speech before a meeting of the Victoria League set up a record for shortness:—"This Society has a value known to you all. God bless it. That is the first point. The second point is £ s. d."

science of aviation. One effect of volcanic dust in the atmosphere is a succession of remarkable sunsets, but at present the thickness of the dust fall is such as to entirely obscure the rays of the setting sun."

COCO-NUT PALM INSURANCE.

The terms of the usual contract of insurance of coco-nut palms against loss by hurricane having been the subject of criticism, advantage was taken of the occasion of Mr. A. W. Farquharson's recent visit to this country to approach Messrs. Henry Head & Co., who specialise in this form of insurance, with a view to their modification.

As the result of a conference in The West India Committee Rooms on the 11th April, between Mr. Farquharson, Major W. W. Rhodes; the Secretary of The West India Committee, and a representative of Messrs. Head & Co., the latter firm agreed to substitute in Clause 1 of their policy the word "loss" for the word "damage," the clause now reading as follows:—

"No claim shall attach unless the loss caused by gale or cyclone during any one period not exceeding twenty-four hours exceed — per cent. of the value of the coco-nut trees hereby insured, each estate being treated as a separate insurance, and then the underwriters shall only be liable for the amount by which the loss exceeds such — per cent."

The following definition of the word "loss" was adopted, and now appears as a footnote to the policy: "It is understood that the word shall cover the total destruction of any tree or such damage as shall make it apparent within a period of six months that the damaged trees are incapable of further bearing."

The question of the rates of premium was also discussed, but the underwriters would not consent to any reduction for the present year, these having been already fixed. Messrs. Head stated, however, that they would endeavour to obtain a concession in this respect if they went through this season without loss.

The rates are: 40/- to pay the excess of 5 per cent. of the value of the plantation; 30/- to pay the excess of 10 per cent.

THE CORONA CLUB.

In the unavoidable absence of the Secretary of State for the Colonies, the Hon. Edward Wood, M.P., presided over the Corona Club dinner, which was held at the Hotel Cecil on June 13th. Among the large company present there was a goodly sprinkling of Colonial Civil Servants who have served or are still serving in the West Indies. At the "high table" were Lieut.-Colonel Sir Charles O'Brien, K.C.M.G., Sir Frederic Hodgson, K.C.M.G., V.D., Sir William Grey-Wilson, K.C.M.G., K.B.E., and Lieut.-Colonel Sir John Chancellor, K.C.M.G., D.S.O., R.E., whilst in the body of the hall were noticed:—

Mr. J. Paton Auld, Dr. E. P. Minnett, Dr. Q. B. De Freitas, Dr. J. A. Brown, Mr. W. M. Gordon, Mr. Aucher Warner, K.C., Mr. C. Sadler, Mr. E. H. Cunningham-Craig, Mr. Walsh Wrightson, C.M.G., Mr. Archibald Graeme Bell, C.M.G., Mr. Cecil Clementi C.M.G., Mr. R. Popham Tobb, C.M.G., Major J. A. Burdon, C.M.G., Lt.-Col. T. R. St. Johnson, Dr. York T. G. Moore, Dr. L. M. Moody, Captain Mark Kerr, Mr. H. Ferguson, Archdeacon F. W. T. Elliot, Dr. P. James Kelly, Captain Thomas H. Irving, Mr. C. H. Harley Mosley, C.M.G., Sir Robert Johnstone and Dr. H. A. Tempay.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 269.)

In its Imperial Association Jamaica has an active business organisation which, though only founded as recently as 1917, already exerts great influence in creating and fostering sound public opinion regarding matters affecting the economic, social, agricultural and commercial life of the island. The success which has attended its efforts in this direction has been largely due to the energy of its founder and Chairman, Mr. A. W. Farquharson, a far-seeing Imperialist who enjoys the somewhat rare gifts of a logical mind and the power of thinking out problems for himself. Mr. Farquharson is one of a clan of that name many of whose members have made Jamaica their overseas home. The Farquharsons are indeed almost as numerous in Jamaica as Welshmen are at a certain College at Oxford, where it is said that if you stand in the Quadrangle and call out "Jones, have a drink!" every window is at once thrown up and an individual enjoying that patronymic appears at it. Similarly there is a tradition that if you travel on the Jamaica Railway, a Farquharson is bound to board your train before it reaches Montego Bay.

Formerly Crown Solicitor of Jamaica, Mr. Farquharson is a practised speaker with remarkable powers of persuasion, which result in his being one of those men who gets things done. In this he is ably seconded by his lieutenant, the Secretary, Mr. Herbert G. de Lisser, C.M.G., a Jamaican of great ability and considerable literary attainment, who finds time not only to conduct the affairs of the Association, but also to write leading articles for the *Gleaner*, the local daily (with which he has been connected for many years), and to publish a remarkable number of books of fact and fiction regarding the island in which he was born, whose welfare and prosperity is always very near to his heart.

It was my good fortune to "see" Jamaica under the auspices of these tutelary geniuses, and one could not have been in better hands. On behalf of their Association they housed me in the Jamaica Club, where I was able to "hob-nob" with such distinguished members of the Legislative Council as Sir John Pringle, Mr. C. W. Hewitt, and Mr. F. M. Kerr Jarrett, who has since retired into private life. They also arranged interviews for me with representatives of all classes of the community and provided me with motor-cars which enabled me to inspect more of the country in a week than I could have seen in a month in the old days of the dilapidated buggy.

The Jamaica Imperial Association has somewhat eclipsed another institution of the kind which is overburdened by the lengthy name of "The Royal Jamaica Society of Agriculture and Commerce and Merchants Exchange"; but as the latter specialises in purely commercial matters, there should be ample room for both and one would regret to see the older body, whose affairs are in the hands of Mr. S. Soutar and Mr. J. L. Ashenheim, the moving

spirit of the Jamaica Jockey Club, put out of business. Similarly the Jamaica Agricultural Society, of which Mr. John Barclay is Secretary, fills an important niche in the agricultural life of Jamaica, co-ordinating as it does, the work and research of an infinite number of branches scattered throughout the island. Another local institution is Mr. Frank Cundall. That learned and artistic individual must be quite tired of reading of himself as the cultured Secretary of the Jamaica Institute. A Londoner by birth, Mr. Cundall has given to the world a prodigious number of magazine articles and books dealing with Jamaica and the West Indies, and has collected the finest library of West Indian literature existing in either hemisphere. He also watches over an interesting museum containing such historic treasures as the old Bell of Port Royal and the famous "Shark Papers," found in the belly of a shark by Lieut. Michael Pitton, R.N., off Jaemel, that led to the condemnation by Prize Court of the brig *Nancy*, which was sailing under false colours—as described by Michael Scott in "The Cruise of the Midge,"—besides a gallery of Jamaica Governors and worthies. In this his own portrait should most certainly be included.

Captain Mahan referred to Jamaica as "the great strategical point in the Caribbean," on account of its commanding position, its size and its population, which approximates very closely to that of the whole of the rest of the British West Indian Islands put together. Jamaica is properly regarded as our leading colony in or near the Caribbean Sea; but its trade is not yet commensurate with its relative importance, being actually below that of Trinidad. Thus in 1910 the total trade of Jamaica was £5,188,165, and that of Trinidad £6,810,599, whilst in the "boom" year of 1920, the totals were £17,459,900 and £18,914,711 respectively.*

Nevertheless Jamaica is making headway and having a greater diversity of industries than that which any other West Indian colony can show, her future is assured. Her exports include sugar, fruit, logwood, coconuts, rum, dyewoods, cacao, coffee, tobacco and pimento, to give them in the order of comparative importance, besides many unclassified "minor products." The probability of all these industries being put out of action by economic causes or by pests and hurricanes simultaneously, is remote, and therefore, though individual planters may experience losses from time to time through such material disadvantages, the community as a whole maintains its equanimity and the island progresses in spite of occasional setbacks.

Sugar is once more King in the island, though here his throne has been threatened by circumstances arising out of the slump which followed the post-war boom; but the banana industry is also menaced to some extent by the fell Panama disease which has spread through the island with uncanny speed. The best brains of agricultural science are, however, applying themselves to the task of finding a remedy for this trouble, and it is hoped that it may be overcome by the discovery of a variety of banana which will resist its ravages.

The position of sugar until recently was more serious. For months prices remained below the cost of production, and those planters who could not believe that quotations would ever come down from the high level ruling in 1920, were caught napping. Some bought estates at fancy prices, and when the slump came, found that they could no longer finance them, while even the more level headed found that their resources were locked up in the new machinery which they purchased while prices were good. Consequently, a difficult and precarious situation had to be faced. To some, relief has been afforded by loans from the Government, which was forced to step in where the Banks feared to tread, and gradually improved market conditions are relieving the anxiety of the planters.

The banana industry has also had its trials, for, apart from the ravages of the Panama disease, it had to face hurricanes in three successive years, which reduced the exports of fruit from 16,201,772 stems in 1914-15 to 9,449,565 in 1916-17.

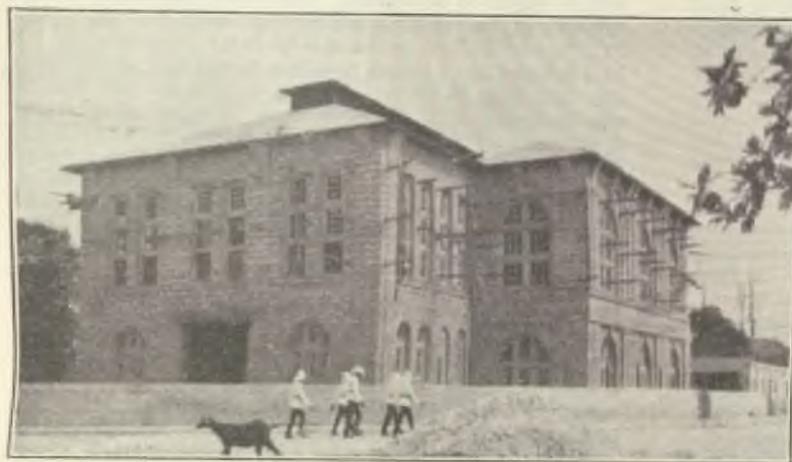
This industry, as is well known, is mainly controlled by a vast American combine which has developed out of the operations of Captain J. D. Baker, the Captain of a wind-jammer that used to trade between Jamaica and Boston. On his homeward voyages he used to take a few bunches of bananas home to his friends, and he found that they were so much appreciated that he began to trade in the fruit. From those small beginnings emerged the Boston Fruit Company, now the United Fruit Company, with a capital of \$100,000,000 and vast ramifications throughout the Western Atlantic. For many years this company had matters its own way in Jamaica, pursuing successfully the plan of absorbing its competitors, a policy which reached its climax in 1918. Then, to the indignation of the independent planters, it secured the control of the loading of the steamers of the Imperial Direct West India Mail Service, which had been established with the main purpose of breaking down the monopoly and opening up a new market for bananas in the United Kingdom. The second of these two objects was attained, but not the first. It must, however, be borne in mind that the hand of Sir Alfred Jones—Chairman of the Imperial Direct line—was forced owing to his inability to secure adequate supplies of fruit from independent growers, partly as a result of a hurricane which had destroyed large numbers of banana trees in 1908.

The United Fruit Company, like other concerns of the kind, has come in for a liberal share of abuse; but it is to be doubted whether the banana industry would ever have reached its present dimensions in Jamaica without their enterprise and capital, and the advantages of their activities in the island far outweigh the disadvantages of an American company operating on such a large scale in a British colony. As Mr. Edward Wood has stated in his report on his visit to the West Indies, they employ a staff of 1,500 persons, all, with three exceptions, British subjects, and have invested approximately two million pounds sterling in the island. Their operations have been conducted on enlightened and progressive lines. Sanitation is almost a fetish with them. They own the two largest hotels, and, with their "Great White Fleet," have built up

* It is only fair to add that the trade of Trinidad is swollen by the transshipment of goods principally to and from the Main the value of which in 1910 was £1,544,284.

a tourist traffic which must be of considerable benefit to the island. They also control Messrs. Elders & Pyffes, Ltd., which now give the colony a weekly passenger steamer service to and from Jamaica. This service, though no freight is carried, is better in every respect than that of the former subsidised line which used to cost Jamaica £20,000 a year and the Imperial Government a like sum.

If as is said to be the case, the soil of the famous Cuban tobacco fields is getting "tired," and



The Barbados Theatre.

Hitherto Jamaica has been the only West Indian Colony possessing a real theatre. Now Barbados is falling into line with this handsome theatre (in the outskirts of Bridgetown) which is rapidly nearing completion.

Havana cigars are consequently deteriorating, the Jamaica product should enjoy a still greater popularity than it does already. Here, again, private enterprise has been supplanted by a combine, the two principal cigar factories in Jamaica, those of the Golofina Company and Messrs. J. & J. B. Machado, being controlled by the British American Tobacco Company. The tobacco industry, of which the Hon. Evelyn Ellis, of Montpelier, was a pioneer, was started in earnest during the Cuban-American war, when several expert cigar makers from the neighbouring island sought refuge in Jamaica, and showed the local idea how the real "Havana" should be rolled. A visit to Machado's cigar factory in Kingston showed how well the lesson had been learned. There, in one of several large rooms, were forty or fifty men and women, each seated at a small table, with a suction plate on it to keep the tobacco leaf flat, rolling the finest "gentlemen," "young ladies," "Panatelas," etc., while they listened to a well-educated black who, perched on a dais in the centre, read to them—not a Spanish love story, as one might have expected in such surroundings—but the local *Gleaner*. In a neighbouring room a modern cigarette machine was turning out cigarettes as fast as one could count, the tobacco falling on to a strip of paper which gradually closed round it, and then, gummed together, was cut into the precise length required, with astonishing precision.

(To be continued.)

In the next issue of the CIRCULAR will be published a précis of an important debate on Imperial Preference which took place in Parliament on June 19th.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Antigua and Rockefeller Foundation.

Addressing the General Legislative Council of the Leeward Islands on the 29th March, the Governor promised, that, should times improve, relief from indirect taxation would be afforded as early as possible. In refutation of the constantly repeated cry that "sugar is done," Sir Eustace referred to the proposals of Mr. G. Moody Stuart to increase the plant of his factory to enable a larger amount of cane to be dealt with, in addition to which Mr. Moody Stuart had other developments in connection with the sugar industry generally, for which he intended to acquire the necessary capital. From a federal point of view, greater attention and assistance was going to be given to all the Presidencies, as was their right and due, and he had given instructions that two visits, as the minimum, every year were to be paid to each of the islands by the Federal officers. His Excellency announced that in response to an appeal to the Rockefeller Foundation, an American doctor was on his way to Antigua to make a survey at the expense of the Foundation.

Less Barbados Syrup this Year.

The *Agricultural Reporter* of May 13th records a dry fortnight with hardly half an inch of rainfall anywhere. The young crop was, however, progressing extremely well throughout the island, and the ratoons growing fast and regularly. Owing to low prices, considerably less syrup is being made this year than last. The mosaic disease of the cane is, unfortunately, spreading, and if thorough measures are not taken to eradicate it, the sugar industry will be in danger. Now that the *Agricultural News* of the Imperial Department is defunct, the Agricultural Society is contemplating the publication of a journal of its own.—At their monthly meeting on May 4th, the Council of the Chamber of Commerce passed a resolution urging the Government to endeavour to get Alastair included in the quarantinable diseases under the West Indian Quarantine Convention rules.—The new theatre is rapidly nearing completion under the direction of Mr. Rosenthal. Situated near Bay Street, it is easy of access from the heart of the capital. For the photograph of the building, appearing on this page, the CIRCULAR is indebted to Mr. J. W. Pearl, who has recently returned to England from a visit to the Island.—Mr. Alleyne Howell, Chief Clerk of the Imperial Department of Agriculture, was married on May 4th to Miss Elizabeth Parker, the ceremony being performed by Canon Howell, rector of St. George and brother of the bridegroom.—The death took place on May 10th of Mr. Samuel Jordan, for many years steward of the Bridgetown Club.

Rent Restriction in British Guiana.

In moving the adoption of the Report of the Baby Saving League at its annual meeting on May 15th, the Governor presiding, the Bishop of Guiana said

that whilst the Government contributed something like \$7,600 to the work, donations received only amounted to \$202. In some ways the Report was a very sad one, particularly when they considered that there was hardly any improvement in the infantile mortality, the rate of which was 197 per thousand in 1887, whilst in 1921 it was 195. The Report was seconded by Dr. Winkler and carried.—The Rent Restriction Bill, which aims at protecting tenants by fixing a standard rent (this being taken at the rent at which the dwelling house or land was let on the 1st January, 1919), and only allowing certain defined increases thereto, was assented to by the Governor on the 29th April. It is expected to give work to the Courts, as it is resented by many of the landlords, whilst some of the tenants appear inclined to take unfair advantage of it.

Cost of British Honduras' Public Works.

The *Clarion*, of May 25th, strongly criticises the Public Works policy of the Government, instancing the Harbour scheme, regarding which our contemporary argues that deepening the bar without protecting the mouth of the river is mere waste of money, whilst in the matter of building a temporary bridge, to cost \$30,000, it is pointed out that Hon. G. E. Grabham had suggested the construction of two barges to serve this purpose, at a cost of \$5,000, half of which his company guaranteed to pay for the barges when they should be no longer required.—A petition has been sent to the Governor by the British Honduras Taxpayers' Association, praying for a pipe-borne water supply for Belize. The petitioners declare that during the 120 years during which British Honduras has been a British Colony, there never has been a proper supply of portable water. When drought occurs, as has happened this year, the Town Board have to ship water from distances of ten and eighteen miles.—The Colony's wireless station is now being refitted with an Admiralty 25 kw. arc set, and other improvements are being made to the installation. When complete the station should be capable of maintaining regular communication with the station in Jamaica when resented, and the Government had approached the Halifax and Bermuda Cable Co. in the latter Colony with a view to their tendering for the supply of a daily service of press news. Mr. Pocock, the company's acting superintendent in Jamaica, has replied that it is impossible to quote a through press rate to Belize until an outlet beyond Christiana station is secured, but quotes £1,200 a year for 1,000 words per diem to include the cost of transmission from Kingston to Christiana.

Dominica's Economic Problems.

Mr. C. E. A. Rawle has been appointed an Unofficial Member of the Legislative Council, in the room of Major R. F. Reuber, who has resigned.—In his address to the Legislative Council on April 28th, the Administrator said that at the present time the outlook for the lime industry could not be considered rosy, and if the United States imposed a tariff wall against tropical produce of foreign countries this would be an additional blow to the Island's trade, not only in concentrated lime-juice but in green limes, for which the United States was Dominica's best market. He did not see much outlook for increased taxation except in a revision of the Income Tax, which at present yielded about £1,500 a year, but what was really needed was a model income tax law for the Colonies drafted so as to provide a basis of principle for the various requirements and conditions of the Colonies

concerned. As for a loan, what security could they offer? It would be idle and unfair to call upon the Imperial Government for assistance. Economy must, therefore, be the watchword during the coming year. The year 1921-2 opened with a surplus of £1,546 and closed with a deficit estimated at £3,000 to £5,000. The estimated revenue for 1922-3 was given at £58,115. There was one item in the liabilities which had appeared for years, namely war tax, £4,090. For this item the present Administration could not be held responsible, but it represented a debt of honour which ought to be repaid. Provision was made for the salaries of the medical officers of districts "A," "B," "C," and "D," to be increased from £375 to £450. It had not yet been found possible to fill the vacancies in the last two districts. The new hospital for Roseau was hanging fire. The question of appointing a resident chemist for the agricultural department faded for the present from the realm of practical politics, but on the retirement of the present Curator (Mr. J. Jones) whose services to Dominica were too well known to need any praise, the possibility of combining the duties of curator and chemist might be considered.

Grenada Government Trading.

The official *Gazette*, of the 26th April, supplies particulars of the fertilisers which are being obtained through the Crown Agents and sold by the Government to agriculturists at a price based on costs and charges only. They consist of the following (the amounts shown being the c.i.f. prices quoted to the Government):—Complete cacao fertiliser (6 per cent. ammonia, 30 per cent. phosphoric acid, 5 per cent. potash), £13 9s. Sulphate of ammonia (24 per cent. ammonia) £19 12s. Nitrate of soda, probable price £20. Superphosphate (40 per cent. phosphoric acid) £8 6s. 2d. Basic slag (20 per cent. phosphoric acid, 80 per cent. fineness) £7 1s. Sulphate of potash (90 per cent. pure) £14 3s. 5d.—Mr. D. J. Kerr, Acting Superintendent of Prisons, has been appointed to act as Chief of Police and provisionally as an Official Member of the Legislative Council during the absence on leave of Major O. C. Heidenstam.—Judgment, reversing a magistrate's decision on "a point of considerable importance," was given by Chief Justice G. O'D. Walton on May 2nd, when the appellant, Mr. F. W. Hudson, successfully resisted a claim made by the Colonial Treasurer to treat the rate of export duty on cacao imposed by Order in Council of January 9th this year, as retrospective, in the absence of any express provision to that effect in the principal Ordinance.

Jamaica and the Panama Disease.

The Panama disease of bananas is being seriously tackled, and a Vigilance Committee has been formed in Golden Grove where a meeting was addressed on May 2nd by Mr. S. S. Stedman, Mr. A. Hansford, the Government Microbiologist, and Mr. J. Sutherland, Inspector of Plant Diseases. The last named strongly advocated the "spy" system for checking the disease's ravages, but said that without the hearty co-operation of all, any preventive measures were doomed to failure.—The West Indian Club Challenge Cup, which is open for competition to teams of ten, the best eight scores to count, in any of the British West Indian Colonies, was shot for by the Jamaican team on Empire Day. Captained by Rev. J. L. Ranson, they put up (says the *Gleaner*) the remarkable score of 785 out of a possible 840.—Another shark tragedy is reported from Savanna-la-Mar, on May 22nd, where a young French sailor, by name Le Sausse Leon, who was bathing from his ship, was killed after a five minutes'

struggle with one of these monsters.—The death is recorded of Mr. David Balfour, Registrar-General, which took place on May 20th. Mr. Balfour, who was born in Scotland, went to Jamaica in 1891 and was admitted to practice as a solicitor in that Colony two years later. After being appointed a Stipendiary Magistrate in 1906, he was selected to fill the post of Registrar-General in 1908.—An interesting addition has been made to the Manuscript Collection of the Institute of Jamaica in the form of a letter written in 1701 by Admiral Benbow on board H.M.S. *Breda*, the ship in which that gallant Admiral's cowardly captives were later tried by court-martial.

Leeward Islands' Governor in Montserrat.

Mr. K. P. Penchock, writing on the 26th May, records a visit from Sir Eustace Fiennes and Lady Fiennes, who arrived in the Island by s.s. *Parima* on May 14th, receiving an enthusiastic reception from all classes. Having inspected a Guard of Honour composed of men of the Defence Force and Police under the command of Captain Twose, His Excellency went to the Court House, where he was presented with an address read by Hon. W. L. Wall. In the course of a strenuous four days in the Island, the Governor visited nearly all the schools, public buildings and institutions, and saw the greater part of the Island by car or on horseback. He also played tennis, took part in a two-day cricket match, and was present at an "At home" and two dinner parties at Government House, besides attending a dramatic performance on May 18th, organised by Major and Mrs. Peebles with a view to starting a Self-help Society. The cricket match was against Antigua, and the local team were confident of winning had the game been finished. The scores in the first innings were:—Antigua, 198; Montserrat, 181. In the second innings, Antigua declared after making 182 runs for 8 wickets, and Montserrat then played out the time, having made 60 runs with the loss of four wickets. His Excellency played for Antigua, and Major Peebles for Montserrat. The weather has been favourable with some rain and no high winds, and the cotton planted in March looks well, but much depends on a satisfactory rainfall during June.

St. Kitts' Acting Administrator.

Hon. W. M. Wigley, Crown Attorney and Magistrate of district "C," is acting as Administrator in the absence of Major J. A. Burdon, C.M.G., Mr. D. H. Semper taking Mr. Wigley's place in District "C" and Mr. G. P. Boon acting as Crown Attorney. Dr. A. N. Aitken, M.D., M.R.C.S., L.R.C.P., has arrived in the Presidency and assumed the duties of Medical Officer of No. 1 District (Basseterre).

A Buyer of St. Vincent Arrowroot.

Mr. J. M. Palmer, vice-president of the firm of J. Morningstar & Co., of New York, has been visiting the Island in order, it is believed, to enter into negotiations for the direct purchase by his firm of arrowroot on a big scale.—Hon. W. Carden Hutchinson is acting as Administrator in the absence on leave of His Honour R. Popham Lobb. The latter has agreed to act as chairman, and the following have been appointed members of a committee to make recommendations for an exhibit at the British Empire Exhibition, 1924:—Hon. W. C. Hutchinson, Hon. A. M. Fraser, Mr. T. Jackson, Mr. W. Grant, Rev. E. A. Pitt, and Mr. A. Da Santos.

Tobago's "Heat-haze."

Writing on the 17th May, Mr. Robert Reid states that the first part of that month was rather too dry. There has been more than a week of sea-fogs night and day, which the inhabitants call "heat-haze," indicating the approach of rainy weather. There have been liberal pickings of cacao in the last six weeks, but when Mr. Reid wrote, they were drawing to a close, and there will be very little available until October. A few favoured estates will obtain their average crops, but the majority will be 25 to 40 per cent. behind last year.—The Governor returned to Trinidad on May 11th, after ten days' visit, during which he motored to all accessible places on the Island and rode from Speyside to Charlotteville, Man o' War Bay. Several deputations waited on His Excellency to inform him as to the needs of the Island, including the question of the water supply in the Leeward districts. It was also suggested that if the Royal Mail Co. were to terminate their contract in view of the prospect of calls from ocean steamers, the local Government should buy R.M.S. *Belize* outright rather than a possible "white elephant" elsewhere.

Trinidad: Victoria Institute to be Rebuilt.

It is good news to learn that the Board of Management of the Royal Victoria Institute have decided to commence rebuilding that valuable institution. The present attitude of the Government, says the *Trinidad Guardian*, is that there can be no contribution this year, but it is more than likely that a grant-in-aid will be included in the estimates for 1923. At present the Board have in hand a sum of £4,000, which was received as insurance money, for starting operations.

Rev. J. H. Poole, writing on May 30th, states that on the end of that month Mr. George MacKay, the newly appointed Director of Education, presided for the first time over the Board of Education, when he was welcomed by Dr. Laurence, one of its senior members.—The Governor has notified the Receiver-General that he does not intend to draw the "cost of living" bonus to which the members of the Civil Service are entitled.—As a result of a Charity Dance organised by Mrs. M. A. Rapsley, a contribution of £125 was made to the St. Dunstan's Hostel for Blinded Soldiers, and other deserving charities were also assisted.—The £200,000 required by the Government to meet the cost of the Caroni Reclamation Scheme was subscribed in fourteen days, the whole amount having been received by May 23rd. The progress of the work of reclamation has been excellent, and in the near future the Colony will be rid of a pestilential swamp which has been the breeding-ground of mosquitoes and a set-back to anti-malarial work in the County of St. George. The scheme when completed will render a large area within easy reach of the town available for cultivation.—On the night of May 20th a serious fire broke out in Frederick Street, when the business premises of Messrs. Murphay Moss & Co. were completely gutted. The fine work of the Fire Brigade prevented the fire from spreading, but the neighbouring stores have suffered considerable damage from water.

The work on the Government docks recommended by Mr. S. F. Staples, at the end of last year, is almost completed, and it is expected that by the end of the current year it will be possible to use the dock at its full capacity. As the result of the report of a Committee of the Legislative Council, the Dock Administration has now been merged into the Public Works Department under the immediate supervision of the Director of that department.

THE BIRTHDAY HONOURS.

The Honours List published on the King's birthday (June 8rd) contained several names well known in the West Indies, the following, to whom the congratulations of the CIRCULAR are due, being among those decorated:—

Privy Councillor.—Leopold Charles Maurice Stennett Amery, M.P.

The Rt. Hon. Leopold Amery was Parliamentary Under-Secretary of State for the Colonies from 1919 to 1921, and represented the Colonial Office at the Ottawa negotiations for the trade agreement between Canada and the West Indies in the summer of 1920. In addition to being Parliamentary and Financial Secretary to the Admiralty, Lieut.-Colonel Amery is Chairman of the Oversea Settlement Committee.

C.M.G.—Carl de Verteuil, Esq., lately a member of the Legislative Council of Trinidad and Tobago. This award, as announced in the last issue of the CIRCULAR, is in recognition of Mr. de Verteuil's great services to agriculture.

Knight Bachelor.—Charles Fitcher Clarke, Esq., K.C., Attorney-General of Barbados.

J.S.O.—Wallace Haynes Cook, Esq., Secretary of the Poor Law Commissioners of British Guiana.

Thomas Fisher, Esq., Chief Keeper of Prisons, the Leeward Islands.

COLONIAL CIVIL SERVICE.

The following appointment and promotions affecting the West Indian Civil Service have recently been made by the Secretary of State for the Colonies:—

Lieut. W. V. Beaumont, M.C., Sub-Inspector of Police, Jamaica.

Mr. G. P. Lewis (Postmaster-General, Trinidad), Senior Surveyor, Posts and Telegraphs Department, Nigeria.

Mr. Lewis, who served as Assistant Postmaster-General of Northern Nigeria in 1910, and of the East African Protectorate in 1918, was transferred to Trinidad last year, in succession to Mr. A. E. C. Ross.

Mr. G. E. Bodkin (Assistant Director of Science and Agriculture, British Guiana), Entomologist, Department of Agriculture, Palestine.

Mr. Bodkin, who recently joined The West India Committee, is a graduate of Jesus College, Cambridge. He received his appointment in British Guiana in 1911, and is the author of numerous papers dealing with original investigations into the life history of insects in that Colony. An article from his pen appeared in a recent number of the CIRCULAR.

BIRTH.

The charge for the announcement of Births, Marriages and Deaths is 2/6 for three lines and 1/- for each additional line. Cheques, postal orders, etc., should be made payable to THE WEST INDIA COMMITTEE CIRCULAR, and crossed "Colonial Bank."

Fugate.—On June 8th, at the Kent Nursing Home, Taubridge Wells, to Mr. and Mrs. Harold Freere, of Roydon Hall, Diss, Norfolk, the gift of a son.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

WEST INDIES AT WESTMINSTER.

The House of Commons reassembled after the Whitsuntide recess on the 12th June.

The Preferential Duties.

Sir Robert Horne supplied to Major Barnes on the 12th June the following particulars of the amount of duty in £'s collected in 1921-2 at the full and preferential rates respectively in respect of certain commodities:—

Articles.	At full rate of duty.	At preferential rate of duty.	Total.
Cocoa	526,000	1,339,000	1,865,000
Coffee	359,000	238,000	597,000
Spirits	5,100,000	6,411,000	11,511,000
Sugar	25,175,000	7,870,000	33,045,000
Molasses	681,000	56,000	737,000
Glucose	757,000	1,000	758,000
Saccharin	1,000	—	1,000
Sugar composite articles ...	1,337,000	69,000	1,406,000

Rum Consumption.

Sir Robert Horne informed Mr. Lindsay on the 12th June that the approximate quantities of certain imported spirits retained for home consumption in the financial year ended the 31st March, 1922, were:—

	Proof Gallons.
Brandy	795,713
Rum	1,803,161
Geneva	96,868

SOME COMPANY NOTES.

Naparima Oilfields of Trinidad.

The directors of the Naparima Oilfields of Trinidad have entered into a provisional agreement with the Whitehall Petroleum Corporation, Ltd. (who are associated with Messrs. S. Pearson & Son, Ltd.), whereby a new company will be formed in England or Trinidad, with a nominal capital of £450,000, which will take over the Trinidad properties (16,000 acres) as from April 1st last, 200,000 of its shares being allotted as fully-paid to the Naparima Company as purchase consideration, and 50,000 shares being subscribed for at par by the Whitehall Corporation (who will thus obtain the control of the new company), to provide working capital. If the corporation subscribes for a further 50,000 shares, it will be entitled to receive 100,000 fully-paid shares of the new company as commission. It will also have the option (until March 31st, 1926) of subscribing for an additional 50,000 shares in the new company at par, and a further option of buying at par from the Naparima Company 50,000 of the 200,000 fully-paid shares to be allotted as the purchase consideration. When the scheme, which has been approved by shareholders controlling approximately 125,000 shares, is carried out, the Naparima Company will become a holding company.

Trinidad Fire Insurance Co., Ltd.

Presiding at the adjourned ordinary general meeting of this company on May 29th, Dr. Enrique Prada referred to the proposed amalgamation with the British Guiana Mutual Insurance Co., the advantages of which would be the obviation of the latter company's competition in Trinidad, the abolition of the requirement of a premium note, and the greatly increased capital at their back in the case of necessity. The proposal was carried unanimously. On the motion of Sir Henry Alexander, a 6 per cent. cash dividend was sanctioned for the past year.

WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Home arrivals from Bermuda, in s.s. *Coronado*, Avonmouth, June 11th:—

Miss M. B. H. Alexander	Lt.-Col. D. O. and Mrs. Hyde	Miss S. E. Seon and the Misses
Miss E. K. S. Barron	Capt. & Mrs. A. Iremoner & family	Mrs. W. M. Smith and Mrs. E. W. Tansoun
Miss V. S. Bellingham	Mrs. A. James	Mr. & Mrs. E. C. Thomas
Mr. & Mrs. M. Burrows	Mrs. & Mrs. G. B. Kennish	Mr. & Mrs. T. D. Trimmingham
Miss F. A. Caspers	Mr. & Mrs. J. W. Lambert	The Misses Trimmingham (2)
Miss F. Checkley	Mrs. M. Lindsay	Mrs. M. Tucker
Comdr. C. Dickson, R.N.	Mrs. M. McDougall	Mrs. Walsh
Mrs. England & family	Mr. B. Martin	General Sir James Willcocks, G.C.B. & G.C.M.G.
Mr. & Mrs. J. Finlay	Miss M. A. McLeod	Lady Willcocks
Mr. & Mrs. A. Gosling	Mr. E. J. Murrell	Mr. & Mrs. E. Wilkinson
Mr. & Mrs. E. Gosling & family	Mr. & Miss H. Onions	Mrs. & Mrs. H. B. Wittidge
Rev. & Mrs. M. Groves	Miss K. C. Palleyn	
Lt.-Col. K. D. Hutchison	Miss M. G. Rainsford	
Mrs. C. Hatten Vach	Mrs. L. Reay	
	Miss M. K. Russell	

Sailings to Jamaica, from Avonmouth, in s.s. *Changubala*, June 14th:—

Mr. W. J. Bramley	Mr. E. Levin	Mr. W. J. Pocock
Mr. J. H. Crowther	Mr. & Mrs. J. F. Phillipps	Mr. J. K. Powell
Mr. E. Juderholm		Miss E. W. M. Smithard

Home arrivals from Jamaica, in s.s. *Paloca*, Avonmouth, June 17th.

Miss G. M. Brown	Mr. O. Lambert	Miss G. W. Seibert
Mr. J. W. Butcher	Mr. D. Liebes	Mr. R. P. Simmonds
Miss W. Butler	Mr. E. V. Lockett	Mr. W. Simms
Mr. H. D. Cowan	Miss A. M. Lockett	Misses C. & M. Simms
Mrs. H. D. Doran	Mr. R. P. Oldy	Master Jesson
Mrs. A. W. Hill	Mr. J. E. Powell	Mr. E. M. Tibbest
Mr. & Mrs. H. Johnstone	Mr. C. R. Ralph	Baroness M. Von Maltzahn
Mrs. Keeling	Mr. & Mrs. T. Roberts	Miss J. M. Walker
Mr. & Mrs. J. Kernack	Mr. E. Roos	Mr. R. S. Wetherall
	Miss A. Savage	

Royal Netherlands West Indian Mail.

Sailings to West Indies, from Dover, in s.s. *Oranje Nassau*, June 10th:—

Mr. H. W. Barnes	Dr. R. Madewick	Mr. A. J. Vokes
Mr. F. W. Goswain	Mr. W. Moore	Mr. E. H. Walcott
Captain J. A. Hodges	Mr. J. H. C. C. Thorne	

Home arrivals from West Indies, in s.s. *Venezuela*, Plymouth, June 7th:—

Mrs. E. Alexander	Mr. F. C. Gooding	Mrs. & the Misses
Mr. J. R. Anderson	Mr. & Mrs. W. Harrison and family	Perkins
Mr. C. E. Bailey	Mr. M. C. Hohenkerk	Miss Richardson
Mrs. & Miss Bagot	Mr. H. Hunn	Mr. & Miss Sanderson
Mr. C. Beall	Miss B. Lamy	Mr. & Mrs. G. E. Sealy
Miss D. G. Carey	Mrs. H. Littlepage	Miss I. Seon
Mr. W. C. Chapman	Mrs. E. Lyon and fam.	Mrs. E. Slack and fam.
Mr. N. Chapman	Mr. E. Marques	Mr. & Mrs. A. H. H. Smith
Mr. C. W. H. Collier	Mr. H. McGill	Mrs. R. Stollmeyer
Mr. & Mrs. C. B. Collier	Mr. & Mrs. McLeod	Mr. & Mrs. J. J. Stevens
Mr. C. F. Condeall	Mr. J. McNiven	Mr. & Mrs. T. S. Thyne and family
Ms. Constanline	Mrs. M. A. Palmer	Mr. P. C. Vincent
Ms. H. N. C. Edwards	Mr. & Mrs. D. Paterson and family	Mr. R. J. Williams
Mr. R. Evans		Miss E. Williams
Mr. W. P. Farrar		

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Ingona*, June 16th:—

Mr. Andrade	Mr. Hutchinson	Miss A. Phillips
Miss Atstin	Miss Hutchinson	Mrs. Plummer
Hon. A. C. & Mrs. Bell	Dr. Kelly	Mr. Teeves Skinner
Mr. T. W. Claeke	Mrs. King & child	Mr. A. Smith
Mrs. E. Coleman	Mrs. Macbey	The Misses Smith (2)
Mr. Davies	Rev. & Mrs. McLean	Mr. H. Thorne
Miss Douglas	Miss M. G. Miles	Miss C. Wilkes
Rev. & Mrs. R. H. Duke	Miss Nanton	Miss F. Williams
Ms. Godden	Mr. & Mrs. Peyton	Mrs. Whiburn

STEAMER SAILINGS.

To	From	Packet	Sailing
Trinidad	... Plymouth	... <i>La Navarre</i>	... June 26
Jamaica	... Avonmouth	... <i>Paloca</i>	... " 27
West Indies	... Glasgow	... <i>Comedian</i>	... " 28
Jamaica & B'inas	... London	... <i>Nubian</i>	... " 29
Jamaica & B'inas	... London	... <i>Conway</i>	... " 30
B'dos & T'dad	... Dover	... <i>Venezuela</i>	... July 1
B'dos & T'dad	... Liverpool	... <i>Antillian</i>	... " 1
Jamaica	... Avonmouth	... <i>Camito</i>	... " 3

VISITORS FROM OVERSEAS.

Hon. J. P. Aspl	Capt. Thomas H. Irving
Mrs. S. Archer	Hon. Mr. Justice E. C. Jackson
Mrs. A. Bagot	Mr. E. B. Jarvis, C.M.G.
Dr. E. Welleley Bailey	Mr. Frank H. Johnson
Maj. E. P. Beecher	Mr. J. F. J. Lamport
Hon. A. G. Bell, C.M.G.	Mr. L. J. Lee
Mr. B. Bonyan	Mr. K. S. Longley
Capt. W. Bowring, M.B.E.	Mr. A. M. Low
Mr. A. E. Bratt	Mr. J. Lywood
Mr. A. J. Brooks	Mr. John Macdonald
Mr. G. G. Brown	Mr. William Mackay
Mr. James Brown	Hon. Harcourt Malcoln, O.B.E., K.C.
Mr. R. Bryson	
Major The Hon. J. A. Burton, C.M.G.	Mr. D. Tackie Matthew
	Mr. G. C. May
Miss E. Burton	Mr. Hugh McElland
Mr. J. W. Cathcart	Mr. R. Nicol
Hon. Cecil Clementi, C.M.G.	H. E. Lt.-Col. Sir Charles O'Brien, K.C.M.G.
Lt.-Col. J. H. Collins, V.D.	
Hls Honour C. F. Condeall	Mr. T. W. O'Neal
Dr. J. H. Cooke, B.A., M.B.	Mr. V. A. Piles
Hls Hon. P. C. Cook, C.M.G.	Hon. J. Stanley Mac
Mr. H. S. Cox	Lt.-W. M. Richards
Mr. R. P. Daggitt	Mr. J. A. Robinson, P.N.A.I.
Dr. D. B. de Freitas	Hon. W. J. Robson
Hon. H. de Minville	Mr. D. Hope Ross
Mr. F. J. Evans	Mr. L. A. Ryan
Ms. T. P. Evelyn	Mr. W. Sanderson
Hon. H. Feigelson	Mr. Ivan I. Scott
Mr. W. G. Ficeinan, B.Sc.	Mr. G. Elliot-Sealy
Dr. W. H. Frobe	Mrs. H. H. Sealy
Mr. C. C. George	Dr. J. R. Sharples
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Mr. J. Gonsalves	Mr. W. M. D. Shields
Mr. Gordon Graham	Lt.-C. S. B. Sivalley, R.N.
Mr. J. T. Greg	Rev. W. R. Symons
Mr. P. Lechinere Guppy	Dr. H. A. Tempary
Mr. A. H. Hamel-Smith	Mr. C. A. Thomas
Mr. H. Hamel-Smith	Mr. L. A. Torrance
Mr. Aliek G. Hinnly	The Rt. Rev. Bishop of Trinidad
Mr. V. Hamschell	Hon. R. A. S. Warner, K.C.
Mr. V. C. Hamschell	Mr. Hugh F. Wildy
Sir J. B. Harrison, C.M.G.	Mr. P. Williams
Mr. W. P. Humphrey	Mr. G. A. Yearwood
Mr. H. L. Humphrys	Mr. H. Graham Yearwood
	Mr. John M. Hicating, The Hermitage, Hadlow, Kent.
	Mr. A. M. Reid, South Cerney, Gloucester, Glos.
	Mr. B. Elin Stoyte, Crediton, Devon.

WEST INDIAN SECURITIES.

Div.		Interest prices.
4 1/2%	Antigua ... 4 1/2% Redeemable 1919-44	84-86
4 1/2%	Barbados ... 4 1/2% " " 1923-42	73-75
4 1/2%	British Guiana ... 4 1/2% " " 1925	87-89cd.
4 1/2%	British Guiana ... 4 1/2% " " 1923-45	82-84
4 1/2%	Grenada ... 4 1/2% " " 1917-42	79-81
4 1/2%	Jamaica ... 4 1/2% " " 1934	93-92
4 1/2%	Jamaica ... 4 1/2% " " 1919-49	79-81
4 1/2%	Jamaica ... 4 1/2% " " 1922-44	87-89
4 1/2%	St. Lucia ... 4 1/2% " " 1919-44	78-80
4 1/2%	Trinidad ... 4 1/2% " " 1917-42	83-85 1/2
4 1/2%	Trinidad ... 4 1/2% " " 1922-44	68-70cd
5%	The Colonial Bank ...	6-6 1/2
8%	Royal Mail Steam Packet Co. Ordinary ...	85-91
6 1/2%	Angostura Bitters Part. Preference ...	
6 1/2%	New Trinidad Lake Asphalt Co. 6% Debentures	103-108
7 1/2%	Consolidated Rubber and Balata Estates Pref.	100
—	St. Madeleine Sugar ...	4/3
—	Apex (Trinidad) Oilfields, Ltd. ...	4 1/4/100
—	Petroleum Options, Ltd., 10% ...	1/24
—	Trinidad Central Oilfields ...	48-6
—	Trinidad Dominion Oil, Ltd., 10% ...	1/3
—	Trinidad Leaseholds, Ltd., 10% ...	20 1/2
—	United British Oilfields of Trinidad, Ltd. ...	11 1/2
—	General Petroleum of Trinidad ...	6-8
—	Napartina Oilfields of Trinidad ...	
—	Direct West India Cable Co. ...	
—	W. I. and Panama Tel. Co., Ltd., Ordinary ...	4-4
—	W. I. and Panama Tel. Co., Ltd., 6% Cum. 1st. Pref.	11-11 1/2
—	W. I. and Panama Tel. Co., Ltd., 2nd ...	11-11 1/2
5%	W. I. and Panama Tel. Co., Ltd., 8% Debentures ...	77-82

(Continued from preceding column.)

To	From	Packet	Sailing
H'mas, J'aca & B. H'das	... Montreal	... <i>Canadian Forester</i>	July 19
West Indies	... New York	... <i>Guiana</i>	" 14
G'da, T'dad & Demerara	... New York	... <i>Maraval</i>	" 18
West Indies	... Halifax	... <i>Caraquet</i>	" 21

PRODUCE MARKETS SUMMARY.

Telephone—
Central 5542.
Telegrams—
"Carib, London."



15, SEETHING LANE,
LONDON, E.C.3.
June 20th, 1922.

BANK RATE. Reduced to 3½ per cent, as from June 15th, after having remained at 4 per cent. from April 13th.

EXCHANGE. Value of the £ Sterling.

	June 6th		June 20th			June 6th		June 20th	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
In U.S.A. ...	18 5	18 8	18 5	18 8	In Spain ...	1 2 6	1 2 6	1 2 6	1 2 6
.. France ...	1 19 5	2 0 11	1 19 5	2 0 11	.. Germany ...	63 1 7	70 1 7	63 1 7	70 1 7
.. Belgium ...	2 2 4	2 2 9	2 2 4	2 2 9	.. Austria ...	236 0 0	260 0 0	236 0 0	260 0 0
.. Italy ...	3 8 5	3 12 5	3 8 5	3 12 5	.. Holland ...	19 0	19 0	19 0	19 0

The intrinsic value of the gold sovereign is £1 2s.

SUGAR. The day after the date of last Summary the spot quotation for duty-paid Cubans in the New York market rose from 4.65c. to 4.81c. A relapse to 4.48c. subsequently occurred, but a quick recovery took place to 4.61c., and yesterday's quotation was at this figure, equivalent to 3.00c. c.i.f., or about 2.83c. f.o.b.

The futures market quotations were: July, 2.91c.; September, 3.18c.; December, 3.23c.

The home market responded to the New York conditions and prices all round are higher. Yesterday's quotations were: London Granulated, 49/9; American Granulated, spot, 48/6; West India Crystallised, 41/6 to 41/6; Yellow Crystals, 41/8; White Mauritius, 45/8 to 47/- spot. 96 deg. centrifugals are quoted at 15/6 c.i.f., with Preferences at 18/9.

Terminal market values yesterday were: 96 deg., July, 15/8; September, 15/-. White, July, 21/9; September, 21/11.

The quantity of sugar imported during May was 226,062 tons, bringing the total for the five months to 830,879 tons. The amount which entered under the head of "refined" for the month was 62,549 tons, bringing the total for the five months to 197,121 tons. The month's "unrefined" imports were 163,519 tons, these for the five months thus being 633,758 tons. For the month, Europe only supplied 2,540 tons, but the United States sent in 45,646 tons. These amounts bring the totals for the five months to 38,232 tons and 130,284 tons respectively. In the unrefined category Cuba contributed 277,498 tons for the month, over half of the total imports for the five months, which were 427,155 tons; 1,511 tons came from Mauritius for the month, and 8,123 tons from the British West Indies, bringing the totals for the five months from these two sources to 61,442 tons and 44,091 tons respectively.

The amount of sugar liberated for consumption was 191,450 tons, as against 80,471 tons in April, mainly due to the replenishing of stocks after the Budget. This brings the total consumption for the five months to 612,785 tons. Of the month's consumption 161,914 tons came from the refiners. The consumption for January-May last year was 587,145 tons.

The stocks on hand on May 31st amounted to 385,150 tons, as against 314,250 tons on April 30th. The stock of imported refined was 38,250 tons and of home refined 49,800 tons, both slightly less than for the previous month.

The West Indian sugar statistics in London on June 10th were:—

	1922.	1921.	1920.	
Imports ...	22,215	21,570	20,490	Tons
Deliveries ...	16,375	18,126	17,130	"
Stock ...	10,535	11,854	20,498	"

RUM remains neglected.

Imports for the month were 395,234 proof gallons, bringing the total for the five months to 1,158,967 gallons, considerably less than the 2,905,592 gallons import of January-May last year. The consumption was 204,989 proof gallons, and the consumption for the five months 648,517 gallons, as against 892,448 gallons for the corresponding period of last

year. Exports were 50,637 gallons for the month, as against 47,125 gallons in April. The stocks on hand on May 31st were 11,283,000 proof gallons, as against 11,413,000 gallons on April 30th.

The stocks in London on June 10th were:—

	1922	1921	1920	
Jamaica ...	12,143	11,181	8,343	Puna.
Demerara ...	19,624	16,730	12,878	"
Total of all kinds	40,798	37,913	31,060	"

CACAO is very quiet. Fine Trinidad is quoted at 75/- spot, with only small sales reported; forward, Plantation 59/- c. & f.; there are sellers of fine Grenada at 59/- to 60/-. Export is dull.

The imports for the month were 130,558 cwts., of which 18,985 cwts. came from the British West Indies, bringing the five months' total from the latter source to 49,443 cwts. The amount liberated for consumption was 80,958 cwts., as against 60,533 cwts. for April last, and the five months' consumption of the present year has been 416,462 cwts., as against 721,501 cwts. for the corresponding period of last year. The exports were 21,627 cwts. for the month, as against 49,924 cwts. in April and 88,336 cwts. in March. The stocks on hand on May 31st were 797,000 cwts., as against 772,000 cwts. on April 30th.

The stocks in London on June 10th were:—

	1922	1921	1920	
Trinidad ...	5,887	23,163	37,833	Baga.
Grenada ...	12,351	24,626	24,481	"
Total of all kinds	116,881	193,393	214,752	"

ARROWROOT is unchanged. Common to good manufacturing, 3½d. to 4d.; good to fine grocery, 4½d. to 6½d.

BALATA. West Indian sheet is steady, but slow of sale. Spot value, 3/- per lb.

BAY OIL is in plentiful supply, but neglected. The last nominal quotation was 9/- to 12/., according to test.

COFFEE. There is only a very slow demand, and in order to effect sales, lower prices have had to be taken. The home trade demand has fallen off, and export business is still negligible. No Jamaica remains in first hands.

COPRA is steady with buyers of West Indian f.m.s. at £25 10s. c.i.f. Rotterdam.

COTTON generally has been in fair demand at advancing rates. West Indian Sea Island is generally neglected with prices unchanged at: medium 23d., fine 20d., and extra fine 38d.

HONEY. There is very little enquiry for Jamaica. Good to fine pale is worth 50/- to 60/., but common qualities are neglected.

LIME PRODUCTS. **Lime Oil.** In Handpressed there have been small sales at 10/- per lb., with a lower tendency. There are sellers of Distilled at 2/- to 2/1½ per lb., according to quantity. **Lime Juice.** Raw is dearer. The bulk of the old stock has moved off at from 1/- to 2/3 per gallon. A small arrival of fair cloudy to good Jamaica and Grenada has sold at 4/- per gallon. A fair business in Concentrated has again resulted at £18.

LOGWOOD is quiet with no business doing. The nominal quotation of £9 10s. per ton is unchanged.

ORANGE OIL. There are sellers of Sweet at 10/6. There is no enquiry for Bitter.

RUBBER. During the past week the market has been firmer. Crepe and sheet are quoted at 7½d. spot.

SPICES. Spot sales of **Pimento** have been made at 2½d. For arrival there are sellers at 19/6 c.i.f. The market for Jamaica **Ginger** is quiet, with prices unchanged. The demand is checked by the high level of values.

TRINIDAD OIL. Production for March: Trinidad Leaseholds, Ltd., 9,550* tons; Apex (Trinidad) Oilfields, Ltd., 1,600* tons; United British Oilfields of Trinidad 4,108 tons. *Output restricted.

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 8642

Telegrams:
CARIB, LONDON.



15, BERYNGE LANE,
LONDON, E.C. 3.

July 4th, 1922.

INCOME TAX LEGISLATION.

FIRMS and individuals domiciled in the United Kingdom and doing business in the British West Indies will no doubt learn with much satisfaction that THE WEST INDIA COMMITTEE have been informed by the Secretary of State for the Colonies that a Model Income Tax Ordinance is being prepared by the Inter-departmental Income Tax Committee for consideration in the West Indies. It is anticipated that the various West Indian colonies which have adopted the system of income taxation will be requested to bring their Income Tax Legislation into conformity with the provisions of this model ordinance. Inasmuch as the Inter-departmental Committee (which, it may be recalled, was set up at the urgent request of THE WEST INDIA COMMITTEE) includes among its members three representatives of the Board of Inland Revenue, each of them an expert in income tax matters, it is reasonable to suppose that the model ordinance, when adopted, will have the result of obviating all possibility of double payment of income tax in the United Kingdom and the colonies concerned, and also many of the annoyances to which taxpayers have been subjected through hastily drafted and ill-considered income tax legislation. It will also mark a distinct step forward in the direction of securing that uniformity in all matters concerning the West Indies which we have so constantly advocated. It would obviously be too much to expect the West Indian colonies to adopt a uniform scale of taxation where such divergencies exist in local conditions and requirements, but as we have so

frequently pointed out, nothing should be allowed to stand in the way of uniformity in income tax regulations, and it is gratifying to know that in consequence of the action of THE WEST INDIA COMMITTEE this is at last within sight. Meanwhile, pending the adoption of the model Ordinance, an endeavour is to be made by means of amending ordinances to adjust some of the more conspicuous anomalies which still characterise the legislation on this subject now in force.

THE AGRICULTURAL COLLEGE.

IT is now practically certain that the West Indian Agricultural College will be opened on October 1st next, the necessary alterations and arrangements for the equipment of the temporary buildings at St. Augustine, Trinidad, being now well advanced. Following a preliminary announcement which has been circulated in order to convey to the Public some idea of the objects of the College, a prospectus giving particulars of the provisional syllabus for the year's course of studies will shortly be available. Already the College is receiving attention from those interested in other tropical colonies, a contemporary, *West Africa*, for example, in its issue of July 1st devoting a leading article to it, in which the suggestion is made that the National Congress should initiate joint general action to endow scholarships at the College for the training of West African youths in scientific agriculture to serve as teachers in a similar college in West Africa. *The Times*, which gave its blessing to the College immediately after the inaugural meeting at the Colonial Office, is again helpful, publishing in its issue of July 4th a further leading article, in which, after expressing satisfaction that SIR ARTHUR SHIPLEY should be now restored to economic zoology from his arduous and successful tenure of the Vice-Chancellorship of Cambridge, and eulogising the work of the Imperial Bureau of Entomology, refers to the College as a very practical application of science to the needs of Empire. Continuing, *The Times* says: "A College for the study of Tropical Agriculture is to open its first session at St. Augustine, Trinidad, this autumn. Last year we were able to welcome the constitution of a governing body to carry out the details of the scheme. SIR ARTHUR SHIPLEY, chairman of the governors, and his distinguished colleagues, have selected a competent staff and devised practical courses extending over three years for a diploma, and shorter periods for training in special subjects or for post-graduate research. The island of Trinidad has provided the site and a handsome grant towards the erection of the buildings, which are now complete. Private persons and commercial companies interested in tropical

produce have made benefactions, and other West Indian islands are to contribute towards maintenance. But the benefits of the College in Trinidad will radiate far beyond the Antilles. The conditions of soil and climate which favour the luxuriant growth of tropical fruits, vegetable oils, rubber, and woods also favour the growth of animal and vegetable pests. Insects and moulds which no more than maintained existence in the jungle proliferate under the conditions of cultivation. Much can be done towards identifying and studying these in the museums and laboratories at home, and something also towards the devising of treatment. But the detection of the early stages, discrimination between methods of treatment, and determination of the most suitable times and modes of applying these can be adequately pursued only in the field. The work of the professors of entomology and of mycology will be eagerly watched in many parts of the Empire, and the men they train will have no difficulty in finding useful spheres when the demands of the West Indian islands have been satisfied." We are proud to feel that in this matter of the teaching of tropical agriculture the British West Indies should be a pioneer.

THE FLY PERIL.

THE season is rapidly approaching when that most filthy and dangerous pest, the common House-Fly, emerges from its winter retreat and begins its fell work of infecting our food and milk with the germs of typhoid, dysentery, and other diseases. In the West Indies the question, "Where do flies go in the winter-time?" does not arise. In the Golden Islands of the West these pests are always present, and it surprises visitors to those colonies to notice how little attention is paid to it. A more or less active campaign is carried on against the mosquito; but in many parts comparatively little attention is paid to the house-fly—perhaps because its onslaughts are more indirect than those of its winged fellow, directed as they are against food rather than against the person. Consequently flies abound in the West Indies, and epidemics of typhoid fever and dysentery follow with sad regularity in their train. In pursuit, therefore, of our policy in endeavouring to awaken public opinion to the grave danger of such insect pests, we now present to our readers an article dealing with the life history of the house-fly, and giving some description of its abominable habits and the dangers to human life resulting therefrom. The writer is SIR ARTHUR SHIPLEY, Master of Christ's College, Cambridge, the eminent entomologist, who now also fills the position of Chairman of the Governing Body of the West Indian Agricultural College, and is recognised as one of the most eminent scientists of the day. We hope that this article, which was originally written for the enlightenment of our sailors and soldiers during the war, will be read very widely throughout the West Indies, and that the lessons which it teaches will be taken to heart. Visitors to the Natural History Museum at South Kensington will find there a remarkably interesting and instructive exhibit consisting of greatly enlarged models of the eggs and larvæ of the house-

fly, and of that odious pest the *musca domestica* itself, tracing their career from the dung-heap to the milk-jug. We have always felt that reproductions of this striking exhibit, and of similar ones dealing with the life history of the culex, anopheles, and stegomyia mosquitoes alongside it, should be placed on public exhibition in every British West Indian colony, and we hope that the day may come when some generous benefactor may provide the necessary funds for carrying out this laudable object. Meanwhile, we commend to the attention of our readers SIR ARTHUR SHIPLEY'S most entertaining article, which we are now permitted to reproduce by the kind permission of the author and of MR. JOHN MURRAY, his publisher. It is written in popular phraseology, and will, we hope, prove of some assistance to the earnest band of workers in the Colonial medical services in their most praiseworthy efforts to educate the communities under their charge regarding the perils of ignoring the house-fly and kindred pests.

"MORE THAN A MAP."

Such is the description generally given to The West India Committee's new Map of the West Indies. This new publication is, indeed, actually more than a map, since it provides a fund of information regarding the West Indian colonies—steamer routes (with distances in nautical miles), submarine cables, wireless telegraph stations, and coaling and oil fuel stations all being clearly indicated upon it.

The map should find a place in the offices of every firm doing business with the West Indies, and in every office, chamber of commerce, club, hotel, and school in those colonies. In this connection, the *Canadian Gazette* of June 22nd says: "Mr. Wood laid stress on educating the West Indians about the history and traditions of their own Colonies, and this map strikes us as being just the kind needed for West Indian schools, and it might with advantage be considered by education authorities of the Colonies."

Readers of the CIRCULAR can help towards securing wide publicity for this map, which should assist materially in bringing the British West Indies, British Guiana, and British Honduras into the public eye by asking those responsible for the management of such institutions as those mentioned above to secure copies of the map and to display them on their walls.

The size of the map, which is handsomely coloured, is 48 by 37 inches, and the scale is 1 : 8,500,000, or 55 miles to the inch. The map extends from Tampa, Florida, in the north, to the extreme southern boundary of British Guiana in the south, and east to west from Paramaribo to Guatemala.

The price of the map is :—

Sheet	7/6	Post free	{ U.K. 8/6
			{ Abroad 9/6
Mounted and folded	15/-	Post free	15/6
Mounted on rollers	12/6	Carriage free	U.K.* 14/-

* Abroad according to destination.

SOME NOTES OF INTEREST.

“MACAQUE conné ki hoi a monter.”

* * *

The United Fruit Company's output of sugar in Cuba last year was 137,153 tons.

* * *

The Nauru Island phosphate mining is progressing rapidly. Last year, the first full year of working, the exports amounted to 394,000 tons.

* * *

WIRELESS messages for Inagua, Bahamas, are now accepted in the United Kingdom for despatch via Anglo through Barbacoa, Cuba, at 2/5 per word.

* * *

“COME-TO-HELP-WE” is the name given in Jamaica to a St. Vincent yam, because it grows on poor soil better than its standard fellows, such as the Afou, White, Negro, and Lucea yams.

* * *

IN the fiscal year ending March 31st, 1922, 391,292,960 gallons of crude petroleum for refining purposes were imported into Canada, as against 311,719,937 gallons for the fiscal year 1921.

* * *

SIR JOHN HARRISON has been requested by the Secretary of State to represent British Guiana at the forthcoming International Geological Conference to be held at Brussels from August 10th to August 19th.

* * *

MR. THOMAS GREENWOOD, a member of the Executive of The West India Committee, has joined the firm of Gane, Jackson, Jefferys & Freeman, Chartered Accountants, with which his grandfather and father were associated about 50 years ago.

* * *

OUT of twenty-two sugar corporations in Hawaii in 1921, three paid no dividend, five from 2 per cent. to 8½ per cent., nine from 6 per cent. to 10½ per cent., four from 12 per cent. to 18 per cent., and one 50 per cent.

* * *

LADY NORTHCOTE and Dame Sarah Swift, G.B.E., have been appointed by the Council of the British Red Cross Society to represent that association on the committee of the West India Health and Welfare Society.

* * *

MAJOR H. HESKETH PRICHARD, D.S.O., M.C., explorer, big game hunter, cricketer, and novelist, who died on June 14th, was the author of “Where Black rules White: a Journey across and about Haiti,” which was published in 1900.

* * *

It is not generally realised that although the Louisiana sugar estates have to maintain a complete series of “dams” to prevent flooding by the waters of the Mississippi, they drain into the swamps inland, which are at a lower level.

* * *

THE value of the imports of agricultural machinery into Australia in 1920-21 was £912,148, as against £429,961 in the previous year. Canada

supplied such machinery to the value of £425,485, the United States to that of £379,709, and the United Kingdom to the value of £107,004.

* * *

THE HON. A. G. BELL, Director of Public Works in Trinidad and Tobago, returned to Port of Spain in the s.s. *Ingoma* on June 16th, and Lieut.-Col. T. R. St. Johnston, Colonial Secretary of the Leeward Islands, left for Antigua in the s.s. *Venezuela* on July 1st.

* * *

AMONGST members of The West India Committee who have recently taken up Life Membership are: Lieut.-Colonel A. C. Macdonald, D.S.O., M.I.C.E.; Mr. Thomas E. Ward, Mr. Otto Oppenheimer, Mr. J. F. Gore, Mr. D. Grafton Simpson, and Major Claud Low, D.S.O., T.D. The total number of Life Members is now 117.

* * *

CUBA's proposed new Customs tariff, which was to have come into operation in April last, is still (according to H.M. Chargé d'Affaires at Havana) under discussion. It differs materially from the existing tariff, and is far lengthier, comprising no fewer than 1,700 items, as compared with 600 in the tariff now in force. The Bill proposes to discard *ad valorem* rates entirely.

* * *

THE beet sugar industry of the United States began in 1888-89, with a crop of 1,861 tons, reaped by two factories. In 1898-99 there were 15 factories, producing 32,471 tons. By 1908-09 the output had increased to 384,010 tons, 68 factories being then at work. In 1918-19, 91 factories reaped 682,867 tons, and in 1921-22 the same number of factories turned out 911,140 tons.

* * *

MR. R. BRYSON has retired from the active management of Messrs. Geo. W. Bennett, Bryson & Co., Ltd., Antigua, his place being taken by Mr. N. Scott Johnston, assisted by Mr. A. K. Petrie-May, who joined the firm as a Director in 1920. Mr. Bryson intends to settle down near London, but hopes to pay periodical visits to his many friends in Antigua, where he still has considerable interests.

* * *

FROM the West Indies the seasonal influx of visitors has set in, as will be noted from the growing list of visitors from overseas published in last CIRCULAR. Among recent arrivals in England have been Hon. William and Mrs. Morrison, Mr. and Mrs. Lionel De Mercado and Mrs. de Lisser from Jamaica, Mr. and Mrs. L. G. Alston and Mr. E. A. Robinson from Trinidad, and Mr. V. C. Hanschell from Barbados.

* * *

DURING the first five months of 1920, 1921, and 1922, the quantities of molasses imported and the product of home refineries which were delivered free of duty for distillery and cattle foods were, in cwts. :—

	Imported.	Made in Bond.	Total.
1922	568,417	345,681	1,214,106
1921	670,970	285,327	956,497
1920	269,435	358,211	625,646

THE new Editor, succeeding the late Mr. John Dymond, of our esteemed contemporary, the *Louisiana Planter*, and of its Spanish edition, *El mondo Azucarero*, is Dr. Blouin, who is well known in association with the Louisiana Sugar Experiment Station, the Hawaiian Sugar Planters' Experiment Station, and the experiment station at Tucuman, in Argentina. Dr. Blouin is a Louisianian, and a graduate of the Louisiana State University.

SINCE 1821 the Seamen's Hospital Society, an institution closely associated with the London School of Tropical Medicine, has treated no fewer than 1,014,906 cases. During 1921, the society lost its chairman, Sir Perceval Nairne, who had been associated with it from the days when the hospital was in the old *Breadnought*, afloat on the Thames, but lived to see it with three hospitals, a sanatorium, a convalescent home, and a school of tropical medicine.

ACCORDING to an official German publication, which bears a title which we will not tax the powers of the compositor to reproduce in this trying weather, the potash supply of Germany is sufficient for the world's consumption at its present rate for 800 to 1,000 years, and that of Alsace for 300 years; while Spain is believed to contain deposits equal to those of Alsace. Deposits of unknown extent have also been unearthed in Russia, on the southern slopes of the Ural mountains.

THE practical application of the science of wireless telegraphy is generally supposed to have originated with Hertz's experiments in 1888. It was, however, Professor David Hughes who was the first to initiate experiments in that direction, transmitting, in 1879, signals through space for a distance of between three and four hundred yards. The results of these experiments were not published. Hughes thought that his results were due to conduction by the air, not realising that they were due to electric waves.

IN 1921 the consumption in Italy of superphosphate was 850,000 tons, as against 1,070,000 tons in 1918. The local output in 1921 was 501,875 tons. The consumption of nitrate of soda last year was 32,000 tons, against a pre-war average of 55,000 tons, and of sulphate of ammonia 20,000 tons, as against 35,000 tons in 1918. Half of the sulphate of ammonia was produced locally. Of the other nitrogenous fertilisers, ammonia nitrate and cyanamide, the consumption in 1921 was 12,500 tons and 24,000 tons respectively.

DR. JOHN ALCINDOR, District Medical Officer for the Paddington Division and President of the African Progress Union, who, it will be recalled, was last autumn awarded a Certificate of Honour by the Joint Committees of the British Red Cross Society and the Order of St. John of Jerusalem, has now to be congratulated upon receiving from the former Society their war medal for home service

—a distinction which is not given for less than two years' war service. Dr. Alcindor's birthplace was in Trinidad, where he was educated at St. Mary's College.

THE magnificent C.P.R. liner *Empress of Britain* will again be seen in West Indian waters next winter. Her first cruise will start from New York on January 20th, and will cover 6,000 miles, with Havana, Port Antonio, Kingston, Colon (Panama), La Guayra (Venezuela), Port of Spain and La Brea (Trinidad), Barbados, Fort de France, and St. Pierre, Martinique, San Juan, and Nassau as the ports of call. The second cruise will start from New York on February 20th, and stops will be made at Havana, Port Antonio, Kingston, Colon, La Guayra, Port of Spain, La Brea Point, Barbados, Fort de France, St. Pierre, San Juan, and Bermuda.

THE green banana, as it grows on the tree, is constantly engaged—together with its expansive leaves—in decomposing carbonic acid extracted from the air into starch grains. It is for the "marker" to say when the banana skin is full and the enzymes, which will change the starch into sugar, may get to work. Probably 90 per cent. of the work of gathering carbonic acid is performed by the leaves, so that when the banana bunch is separated from the parent stem, the development of the fruit is arrested. In the opinion of Mr. B. Rogers, of Bristol, who writes on this subject in the *Banana Budget*, the most successful results in the treatment of bananas during the ripening stage can be achieved by: Darkness, to give uniformity of colour; fresh air, to prevent skin irritation or outer fermentation; and even temperature, to give maximum sugar content or flavour.

WHEN Japan occupied the island of Formosa, the Chinese were found growing and manufacturing from 60,000 to 80,000 tons of low-grade sugar. The Japanese at once took the matter in hand. In all sugar-producing schemes, modern plants of machinery were made obligatory, and the use of the old cattle mills prohibited. A sugar bureau was constituted, the formation of large companies encouraged by liberal subsidies or guarantee of interest, irrigation projects developed, appliances for mechanical tillage imported, and new varieties of cane obtained from Hawaii, Java and Australia. Formosa now turns out about 800,000 tons of sugar, but *The Far Eastern Review* states that practically all the land available for sugar in South Formosa has been allotted, and that there only remains 10,000 acres on the east coast of the island suitable for that purpose.

SQUASHY PUDDING.—Take 1 lb. of young squashes. Having boiled them and squeezed them dry between two plates, beat them with $\frac{1}{2}$ lb. of fresh butter, $\frac{1}{2}$ lb. sugar, and 12 eggs (of which six of the whites are extracted). Then bake in a quick oven.

GUIANA'S WEDDING GIFT.**Presentation to Princess Mary.**

At Chesterfield House, on June 20th, Mr. Cecil Clementi, who was accompanied by Mrs. Clementi, presented to Princess Mary the handsome diamond bracelet depicted on this page as a wedding gift from the people of British Guiana. Mr. Clementi subsequently received the following gracious letter from Her Royal Highness:-

Chesterfield House,
21st June, 1922.

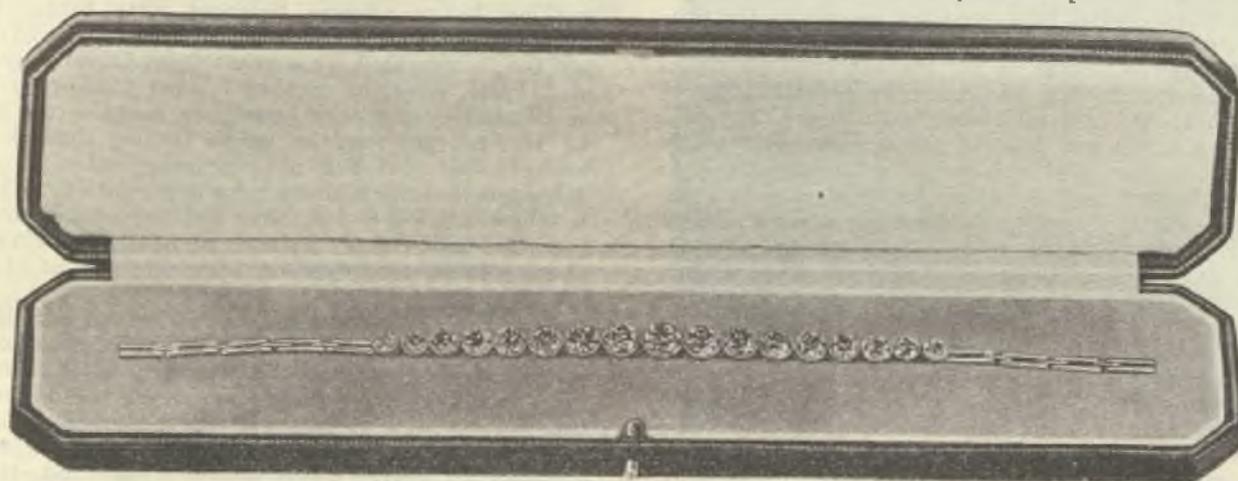
DEAR MR. CLEMENTI.--I wish to express my grateful thanks to you and Mrs. Clementi, and through you to the Colony of British Guiana, for the most beautiful diamond bracelet with which you presented me yesterday.

I find it difficult to tell you how much I admire this splendid gift, or how greatly I value the kindness and good will of which it is the expression. I

HOME-GROWN BEET SUGAR.

BY VICTOR C. MEYER.

The decision of the British Government to grant to a concern known as Home-Grown Sugar, Limited, protection to the extent of considerably more than the value of their product is noteworthy in more ways than one; for the Chancellor of the Exchequer, in his recent Budget statement, retains the Customs duty at its present high figure of £25 10s. 8d. per ton, while he repeals the whole Excise duty on the same article. The Minister of Agriculture had presaged this extreme measure by his announcement in the House of Commons that "the Government has decided that, in view of the exceptional circumstances of the new industry of sugar beet and the condition of unemployment in this country, no Excise duty should be charged on home-grown sugar," and in view of the economic significance and the imperial importance of such



British Guiana's Gift to Princess Mary.

This magnificent Diamond Bracelet was presented to Princess Mary by Mr. Cecil Clementi, on behalf of the People of British Guiana, on June 20th. It consists of seventeen beautifully graded stones, equally matched for colour and size and of excellent quality.

have been so deeply touched during these past months by the manner in which the people of the British Empire all over the world have sent me their good wishes and their gifts at this time of my great happiness.

May I ask you again to express to the People of British Guiana the very sincere and grateful acknowledgment of their thought for me, which I cannot give to them in person.

(Signed) MARY.

The bracelet, which was contained in a royal purple leather case, was made entirely of diamonds and gold from the interior of British Guiana. Mr. H. Thorne, the well-known diamond buyer, who represents Messrs. Lewis and Marks, Ltd., Mr. Otto Oppenheimer (a Life Member of The West India Committee), and other London firms in Georgetown, kindly supplied the stones at the local cost price, and the necessary cutting and polishing was performed at the National Diamond Factory at Brighton by disabled soldiers, free of expense to the Colony.

a statement, some observations on the general situation may not be uninteresting.

The growing and manufacture of beet sugar in the United Kingdom is no new project, but not one of the ventures has been a success, and the more recent attempts at introducing sugar manufacture as an indigenous industry have been attended with the most abject failure. The sugar beet can be grown in our own country, as in most other temperate regions, but its practicability as a commercial undertaking is quite another matter, for experimental results have never been confirmed by practical experience.

In 1831, following on the incentive of Napoleon I. and the strides made by France in the cultivation of beet sugar, some young men of Essex, members of the Society of Friends, crossed the Channel to gain the best information and experience in sugar manufacture, and so qualify them to establish a home manufacture on like principles. They were interested in the movement for the

abolition of slavery, and actuated by the desire to produce an essential article of food by free labour. On their return they were accompanied by two Frenchmen, trained to the industry, and with their assistance proceeded to the erection of a sugar factory at Ulting, near Maldon. The mill, though small, was well equipped for its time, the most modern principles in construction and appliances being adopted. The roots were drawn, rasped and crushed to pulp; the juice expressed, clarified, and boiled by steam heat in copper pans—in fact, the methods there applied showed little change from the practice of to-day.

The new industry assisted, in a small way, the employment of the peasantry and benefited agriculture by providing not only a new outlet for the product of the soil, but an article of fattening qualities for farm stock. The venture excited much interest at the time, but the actual results did not confirm the experimental tests; many unforeseen difficulties were met with, and lack of necessary capital hampered the success of the project which, after a short life, was abandoned.

About the middle of the century the cultivation of the sugar beet was tried in several parts of Ireland, and although results promised well, the efforts never got beyond the experimental stage. The next practical application of indigenous sugar manufacture in the United Kingdom was in 1808, when James Duncan, of Benmore, a sugar refiner who had migrated from Greenock to London, where he successfully conducted refining operations, established a beet factory at Lavenham, in Suffolk. Duncan, an experienced sugar refiner and astute Scotsman, was, perhaps, the best qualified of all the prospectors, before or since, to introduce, with any measure of success, the home manufacture of beet sugar; but, as in the other cases, his venture was a failure. Although the co-operation of the farmers was hearty and helpful, the great cost of working, with a lack of suitable labour and farm material, added to other disadvantages, caused the abandonment of the undertaking as a bad job, after eight years' struggle. The Lavenham factory was satisfied with gaining the beet juice, clarifying it, and concentrating it for transport to Duncan's Clyde Wharf Refinery for mixing with cane juice before boiling.

After some years of idleness, it was re-opened in 1881, and a considerable sum of money expended on it to manufacture beet sugar by a new German process, but the few tons produced convinced the operators that the attempt was futile, and they wisely gave it up.

The insidious and uncontested campaign of Continental State bounties, for both raw and refined, in the last quarter of the nineteenth century made any effort at home sugar growing quite out of the question, as our old-established sugar producing Colonies were almost ruined, and our home refining trade well nigh extinguished. But the Brussels Sugar Convention, entered into by Mr. Balfour's Government in 1903, introduced a more equitable and equitable condition to the sugar trade of the world. Cane sugar growing, both in our own

Dependencies and elsewhere, showed marked increase and improvement. But that was no guarantee that home beet growing had any better chance of success, more particularly as the succeeding Government of Mr. Asquith, with a strange interpretation of the principles of Free Trade, abandoned the Convention in 1913.

At that time, however, a beet factory was started at Cantley, in Norfolk, in conjunction with a Dutch sugar company. It ran for a few years, but even with large grants from the Development Fund to assist the farmer, and a direct bounty on manufacture of 1/10 per cwt. in the form of exemption from duty, it was a colossal failure. The total exemption of the then sugar duty was granted by the same Free Trade Government which had condemned the Brussels Convention as being of a protective nature.

The financial complications with the Dutch sugar growers made it difficult to establish the real losses of the Cantley Company, but in the few years of its working heavy adverse balances were revealed. The price paid for roots in the first year was 23/- per ton, augmented by a grant from Government of £11,000, equal to another 7/- per ton, or 30/- in all, and even with a bounty on manufacture of £1 10s. 8d. per ton, the year's trading showed a loss of over £45,000, not including interest on debentures or any allowance for depreciation. The second year's operations were not one whit better, and disclosed a debit balance of nearly £100,000. These results, too, were on a meagre output of a few thousand tons.

The usual difficulties were experienced, both in field and factory, and did not give hope of any revival of the industry; but immediately at the close of the Great War, and misled by the abnormal world's price of sugar, it was re-started under a new directorate. Despite the preference to home-grown sugar, which was still conceded, the one season's working is said to have resulted in a loss of about £70,000.

(To be continued.)

In the first four months of the present year, the United States exported 855,126 tons of refined sugar to 58 different countries, including Ireland.

ALTHOUGH £3,000,000 represents Australia's annual bill for petrol and kerosene, the Commonwealth Excise Department insist upon a system of denaturising power alcohol, which costs 7d. a gallon, rendering successful competition with imported petroleum products out of the question.

When food supplies of the American Relief Administration began to arrive in the Volga River Valley of Russia this spring, it is reported, says the *Tea and Coffee Trade Journal*, that the native peasants looked with dire suspicion upon the kettles of steaming cocoa distributed from the kitchens. "The devil is posing as an American and trying to make us drink his brown poison!" they exclaimed, and upset the boilers containing cocoa made for the children. The American inspectors had to conduct a campaign of education,

THE HOUSE-FLY PERIL.

By SIR ARTHUR SHIPLEY, G.B.E., F.R.S.

Reprinted from "The Minor Horrors of War"
by kind permission of the author and of Mr. John Murray.

Musca est incus pater, nil potest clam illum haberi;
Nec sacrum nec tam profanum quidquam est, quin
Ibi ilico adsit. (PLAUTUS, *Mercator*.)

"The common house-fly (says Ruskin) is the most perfectly free and republican of creatures. There is no courtesy in him; he does not care whether it is a king or a clown whom he teases, and in every step of his swift mechanical march and in every pause of his resolute observation there is one and the same perfect expression of perfect egotism, perfect independence and self-confidence and conviction of the world having been made for flies. Your fly free in the air, free in the chamber, a black incarnation of caprice, wandering, investigating, fleeting, flitting, leaping at his will with rich variety of feast from the heaped sweets in the grocer's window to those of the butcher's back yard, and from the galled place on your horse's neck to the brown spot on the road from which, as the hoof disturbs him, he rises with angry republican buzz; what freedom is like his?"

The house-fly is all that Ruskin describes it to be, but it is more. It is the most cosmopolitan of insects. Wherever man is, there is the fly. It comes—

From Greenland's icy mountains,
From India's coral strand.

But it is naturally more frequent in warm climates than in cold, as the rate of its development depends very largely upon an average high temperature.

Unlike the lice and the bed-bug, the fly, like the flea, passes through a complete metamorphosis—egg, larva, pupa, and imago. It will breed in almost any rotten matter, whether vegetable or animal, and it breeds most successfully, as Gordon Hewitt has pointed out, when certain processes of organic fermentation are taking place in its breeding-place. Probably the fermentation has a favourable effect not only upon the food of the larva, but by raising the temperature of habitat of the larva. Undoubtedly the place most readily selected by the female for laying her eggs is stable manure. A few years ago there was a remarkable reduction in the number of house-flies in London, and Lord Montagu of Beaulieu attributed this reduction to the refreshing and insecticidal petrol vapour with which the streets of that town were then bathed. I do not know what experiments Lord Montagu had made on the subject of the insecticidal value of petrol vapour, but the ordinary man in the street attributed—and I think more correctly—the diminution of the plague of flies to the absence of the nidus in which the female fly lays her eggs. Stable-yards had been turned into garages. But flies will, indeed, breed in almost any kind of dejecta—including the human—and in rotten straw, rotten wool, rotten cotton garments, decaying vegetables and fruits, bad meat, rotten grain, and even in spittoons, but they prefer horse-manure.

Various methods have been adopted for preventing flies from breeding in horse-manure, such as sprinkling the manure-heap with 5 per cent. creosol, or with crude-oil-emulsion, or by covering it with earth with which crude oil has been mixed in the proportion of one gallon of oil to forty of earth. This amount should be enough to cover from 80 to 100 square feet. Garbage of all kinds should be collected and burnt or buried; huts, tents, and the surrounding ground be kept as clean as possible. All fresh horse-manure and stable-litter should be promptly removed and destroyed or disinfected with the materials mentioned above. No excrement should ever be left exposed, and if no other methods are available it should be, as Moses recommended, immediately covered with earth.



FIG. 1.—Mass of eggs of *M. domestica*.

In our country house-flies usually begin to breed in June and July, continuing well on into October if the weather be but warm. Their greatest activity is, however, in the hotter month of August and the beginning of September. But in warm stables, restaurants, and kitchens flies are able to reproduce the whole year round. A single fly will deposit at one time 100 to 150 eggs, and in the course of her summer life may produce five, or even six, batches of ova of this size. The eggs are pearly white, elongated structures, with two converging lines, along which the egg-case will ultimately split to give exit to the larva. The eggs are laid, by means of a long ovipositor, a little way beneath the surface of the dung-heap in a position where they will not readily be dried up. In favourable conditions the eggs hatch in from eight to twenty-four hours.

The larvæ are legless, tapering towards the head, a short distance behind which, on the second body segment, is a pair of breathing-holes, or spiracles; their bodies are much stouter towards the hinder end. On the whole they are white, unpleasant-looking maggots, called by freshwater fishermen "gentles." By contracting and expanding its body it pushes its way through the moist, semi-liquid

surroundings. The skin is usually moulted some twenty-four hours after birth, but all these time-limits depend much upon the temperature and favourable conditions. With normally high temperatures—say with 30 deg. C. to 35 deg. C.—the larva will become fully grown in five or six days.

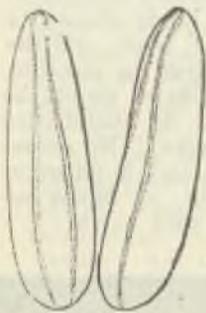


FIG. 2.—Eggs of *M. domestica*, $\times 40$ (From Gordon Hewitt.)

The third and final larval stage, after the second moult or ecdysis, lasts three days, and when fully grown the maggots are now about half an inch in length. Externally, twelve segments are visible, but the internal anatomy shows that thirteen are really present, though one is almost "masked."

It is only during these larval stages that the insect grows, and it is never more bulky than in the third larval stage. Now it leaves the moist situation, in which it has flourished, and, crawling through the manure, seeks some dry material near

the surface of the manure heap or in the neighbouring earth. For a time it rests, and then after an hour or two's quiescence it retracts its anterior end and assumes a barrel-shaped outline, its creamy white colour slowly changing to a mahogany brown. The larval skin forms the pupa-case, and within this pupa-case the body of the larva undergoes a wonderful change, far greater than even human beings undergo at the time of puberty. Many of its organs are disintegrated and re-formed, and in the course of three or four days the white, legless, repellent maggot, who "loves darkness rather than light," is changed into a lively, flying insect, seeking "a place in the sun" and the companionship of man. As the Frenchman said of the pig which goes into one end of the machine in the Chicago meat-factory as live pig and comes out at the other end in the form of sausages, "Il est diablement changé en route."

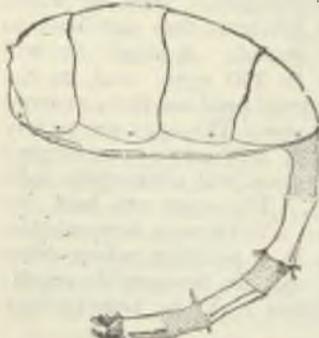


FIG. 3.—Abdomen of female house-fly, showing the extended ovipositor. (From Gordon Hewitt.)

if the conditions be indeed favourable the whole development from the egg to the perfect fly may be accomplished in nine or ten days,

and the second generations are able to lay their eggs ten days later. The appalling fecundity of such an insect explains the fact that in the hotter parts of the world nearly every edible thing seems to be covered with them.

The proboscis of a fly can only suck up liquid food; and when we see it feeding on solid substances, such as sugar, it has really dissolved the sugar by depositing some saliva on it, and is sucking up the sugary solution so produced. It not infrequently regurgitates its food in a spherical drop, part of which it generally re-absorbs.

As we have seen, flies are very susceptible to temperature, and with the approach of cold weather they seem to die. We used to think that some, in a state of suspended animation, "carried on" through the winter months. This is, however, "non-proven." Many of them undoubtedly die in the autumn, as bees die, of old age. They are literally worn out. But a great number fall victims to a parasitic fungus called *Empusa*. Flies killed by this fungus are frequently to be seen in autumn, hanging dead on windows, etc., surrounded by a halo of little whitish, powdery spores formed by the fungus.

Flies, like many other common insects, are extremely difficult to keep alive in captivity, and

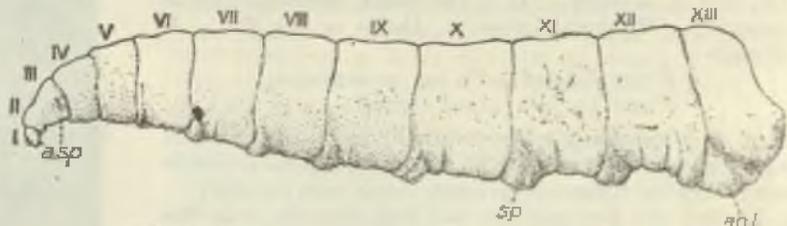


FIG. 4.—Mature larva of *M. domestica* a.s.p. Anterior spiracular process; an l, anal lobe; sp, spiniferous pad. I, head; II-XIII, body segments. (From Gordon Hewitt.)

few have succeeded in rearing them for more than a month or two. At one time, as we have said, it was thought that those flies which survive the winter were fertilised females of the younger broods, and that during the winter they subsisted on their "fat bodies."

Doubt has recently been thrown on this theory, and in a recent report of the Local Government Board Dr. Newsholme sets forth the results of the researches of Dr. Monckton Copeman and Mr. E. E. Austen in the following words:—

Until recently there was general agreement that a certain number of flies managed to survive the winter and spring by hibernating in dark nooks and crannies in dwelling-houses, or, as contended by Dr. Laver, in various sheltered situations outside dwellings—such as the under-surface of the thatch of farmyard stacks. The researches of Mr. Jepson and others have shown that, during the period extending from late autumn to early summer, flies may be found occasionally in all active conditions in warmed houses, and especially in such places as kitchens and bake-houses, where the temperature is kept relatively high; and further, that under these conditions, and in the presence of sufficient food material they may even continue to breed. Doubt

has, however, been expressed as to whether a sufficient number of flies remain in active condition in these localities to perpetuate the species, and to start the rapidly multiplying generations of the following summer.

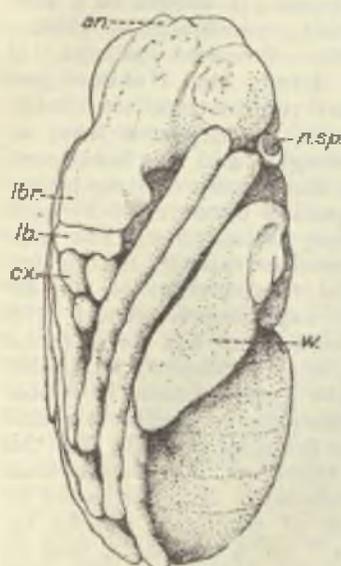


FIG. 5.—"Nymph" of *M. domestica* dissected out of pupal case about thirty hours after pupation. *an*, Swellings of nymphal sheath marking bases of antennae; *cx*, coxa of leg; *lb*, labial portion of proboscis; *lbr*, labral portion of same; *n.sp.*, spiracular process of nymph; *w.*, wing in nymphal alar sheath. (From Gordon Hewitt.)

species of all flies captured in a dormant condition during the winter months, the co-operation of Mr. Austen, of the British Museum (Natural History), was obtained, and to him all the flies collected were submitted for examination. The one specially interesting and unexpected point emerging from this inquiry was that not a single specimen of the house-fly (*Musca domestica*) was met with among the considerable number of hibernating flies caught in situations which have hitherto been regarded as the special habit of this fly. Under these circumstances it was felt that further detailed investigation of the matter was needed; and, accordingly, inquiry on a more extended scale, and covering—as it proved—an extensive area, was initiated and carried through during the winter of 1915-16.

Once more, the results obtained afford no support to the belief that house-flies hibernate, in this country, in the adult state; and the problem as to the manner in which the interval between one fly-season and the next is bridged over still remains unsolved.

Gordon Hewitt, Copeman, Howlett, Merriman, and others, have made experiments as to how far a fly can travel. Marked flies have been taken within forty-eight hours at distances ranging from 300 yards to a mile. Apparently the direction of the wind plays a considerable part in the distance they cover.

(To be concluded in our next.)

SEA ISLAND COTTON.

British West Indies' Production.

The market conditions for Sea Island cotton in 1921 were unfavourable, and there was very little demand for the goods made from this style of cotton. It is pointed out in the seventeenth Annual Report of the British Cotton Growing Association that with the high prices ruling in recent years the cost of production has increased enormously, and planters are complaining that they find it difficult to produce cotton at a profit even when it is possible to sell the product at 27d. to 30d. per lb.

Notwithstanding the fact that the pink boll-worm has now existed in a number of the islands for its second season, it appears that under the conditions of soil and climate characteristic of certain of these islands, fairly satisfactory crops of cotton can be produced. The steps taken by the Imperial Department of Agriculture to combat the pest have been most commendable. Much depends on the efforts of all concerned in the industry in cleaning up after each season's crop. The old plants and all parts of them must be burned promptly as soon as the cotton is picked; seed cotton must be ginned and the seed properly disposed of; all seed for planting must be fumigated or otherwise treated for the destruction of the insects in it; all buildings or premises where cotton has been stored or handled before the time when there shall be any cotton bolls in the field must be thoroughly cleaned.

The report goes on to refer to the definite establishment of the West Indian Agricultural College, stating that the fact that Sir Francis Watts has been appointed its Principal augurs well for its careful and solid foundation as a research and educational institution.

It is estimated that approximately 4,500 bales (of 400 lbs.) of cotton were grown during 1921 in new fields in the British West Indies, which contributed 5,028 bales of the 671,106 bales consigned to the United Kingdom from all parts of the British Empire during the year. As regards the cotton exported, 3,423 bales were shipped from the Leeward Islands, 1,554 from St. Vincent, 822 from Grenada, and 179 from Barbados. Jamaica is credited with having exported one bale, whilst it is stated that no returns are available in the cases of Trinidad and Tobago and St. Lucia. The total West Indian exports of 5,979 bales were valued at £214,542, showing an average price of 21½d. per lb., as compared with one of nearly 5/- for 1920.

The following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :—

- "The Manufacture of Cane Sugar," by Jones and Scard; 26/-.
- "The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Hawcett; 16/-.
- "Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.
- "The Cane Sugar Factory," by F. I. Scard; 2/-.
- "The Pocket Guide to the West Indies"; 7/6.
- "Historic Jamaica," by Frank C. Cundall; 8/-.

HONDURAS TIMBER RESOURCES.

Mr. Hummel's Hopeful Report.

More than one-third of British Honduras consists of workable mixed high forest, whilst about a third is pine forest land, making a total workable forest area of about 4,300,000 acres.

In his report to the Colonial Research Committee an abstract of which is given in an appendix to the second annual report of that valuable department, Mr. C. Hummel, who has recently completed a forestry survey of the Colony, states that its mahogany forests are at present sub-normally stocked, averaging only about one tree per acre instead of 20 or 30 trees. The available stock of mahogany is continually, although slowly, decreasing, because the natural reproduction is insufficient. The easily accessible forests have been worked out to a great extent, while some of the relatively good forests are not accessible at present without roads and railways, whilst with falling prices it does not pay to exploit the more remote forests unless they are made accessible more easily by roads and railways.

What of the future? The Colony's total output of mahogany is very small as compared with the extensive area of the forests, being only some 10,000,000 superficial feet or approximately 25,000 tons a year, but under intensive forest management Mr. Hummel considers that this quantity could be grown in a permanent rotation on an area of about 25,000 acres or less. If the present scattered growth of mahogany were thus concentrated on a well-selected area, it would be worth while building good permanent roads and railways for exploiting such well-stocked mahogany forests. Better means of transport would indirectly foster agricultural enterprise, and the more systematic utilization of the forests in a permanent rotation would put the general shifting conditions of working and living in British Honduras on a more stable basis. Another result of more concentrated production and exploitation by modern means of transport would be that it would put the mahogany trade of British Honduras into a very strong position for competing in the world's market, with the ultimate result that British Honduras would get a much larger share of the world's trade in mahogany.

The quality of British Honduras mahogany is second to none; it is a first-class cabinet wood and is also first-class for technical purposes. Wood of this quality will have a sure market at all times as long as it is obtainable at a reasonable price, but the price, in the past, has been very high. It has had a good market for the last 200 years. Under proper treatment it takes the British Honduras mahogany tree (*Swietenia Macrophylla*) 30 to 50 years to mature, but in the untreated wild forest it takes longer, viz., about 100 years, owing to suppression by other useless trees. If a plantation of British Honduras mahogany were made this year (1922) on a well selected area, the best trees of that plantation would be exploitable

25 to 30 years hence, i.e., after 1947. In the worst case the forest could be felled by 1970. If a loan were raised for this purpose, it should be a loan for an equally long period, redeemable by 1970.

After discussing the financial aspects of mahogany planting in detail, Mr. Hummel goes on to state that quicker results than are obtainable from plantations may be expected from so-called "improvement fellings," and at a lower cost. Their object is to bring the already existing undersized mahogany trees quicker to maturity by girdling and killing interfering useless trees. The same method has the additional advantage that it improves also the natural reproduction of the desired species. From experiments made with British Honduras mahogany, it has been found that the above silvicultural treatment, if applied judiciously, leads to the establishment of whole groups of self-sown mahogany seedlings round each parent tree. The financial outlook for this kind of treatment is, therefore, still better than that for mahogany plantations. It is proposed to increase the production of mahogany chiefly by "improvement fellings" on a big scale, and to make artificial plantations only where there are special reasons for doing it. Good practical results from "improvement fellings," viz., quicker maturing of undersized trees, and a gradually increasing output from selected areas, are expected to become distinctly noticeable very soon, after about five years.

The British Honduras Forest Department should certainly become a revenue department which will yield an annual net revenue for general expenditure similar to the forest departments of India, the Federated Malay States, Ceylon, etc., but funds are required for making a start. The total amount required for the first ten years would be some \$500,000. If it were possible to make twice that amount, i.e., \$1,000,000 available, a much quicker development of the Colony's extensive forests, and consequently a quicker opening up of the country by roads and logging railways would be possible. In order to get well ahead of other competing countries in Central America, it would be desirable to bring large areas under forest treatment from the very beginning. The possible annual output under proper forest management is, at a very low estimate, about half a million tons of pine wood and one million tons of other wood. It is almost certain that teak also would grow well in British Honduras. In this estimate not the whole forest area of about 4,300,000 acres has been taken into account, but only 2,800,000 acres, whilst the remaining 1,500,000 acres have been excluded, so as to make provision for later agricultural development which is expected to follow when the country is made more accessible by logging roads and logging railways. (To be concluded.)

Copies of the First Year's Prospectus of the West Indian Agricultural College will shortly be obtainable from the Registrar, c/o The Imperial Department of Agriculture, Barbados, or the Secretary, 15, Seething Lane, London, E.C.3.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

A BRITISH BAY RUM INDUSTRY.

A predominant part of the activities of Mr. W. Robson, Curator of the Agricultural Department of Montserrat, have been directed towards the selection of those strains of Sea Island cotton whose continued perpetuation has been shown to be desirable. Attention has also been given to the question of "suppressed lint length" of cotton—a curious shortening of the fibres which is often seen in the second picking. In dry seasons planters frequently have to depend on their second pickings, so that the quality of this later-formed lint is an important matter. But unfortunately the pink boll-worm, which gained entrance into the island during 1920-21, does its chief damage about the time of the second pickings; so that unless this pest can be controlled, neither second pickings nor the elimination of suppressed lint length can be of much value. Prompt measures were taken from the start to control pink boll-worm by close seasons, by keeping the fields and gineries clean, and by the fumigation of seed for planting, and there is every reason to believe that the pest will be kept under control. It constitutes, however, a continual menace, and, like the mosaic disease of sugarcane, is an example of the serious difficulties which the West Indian planter has to face, quite apart from the question of the world's prices for his produce. Mr. Robson's investigations concerning bay-oil have also been important. Everything points to bay-oil proving a profitable industry, and one capable of considerable development in Montserrat. The one-acre plot at the Station, for instance, planted in 1911, yielded in 1920 8,654 lbs. of leaves, giving 108 lbs. of oil valued at £75. The cost of cultivation is practically nil, and the distillation is a very simple and inexpensive operation. In this connection reference must be made to the assistance rendered by Mr. Collens and the staff of the Government Laboratory, Antigua, who have carried out several series of chemical and physical tests of the Montserrat oil. One interesting experiment showed that the yield of oil and its quality (Phenol content) are improved by drying the leaves before distillation—a result which is quite new and important.

It may not be generally known that greatly increased attention is being given to the manufacture of bay rum in the West Indian islands since prohibition reduced the output from St. Thomas and high duties its importation into islands like Barbados. St. Lucia and Barbados are both making bay rum in considerable quantities and of good quality. It will scarcely be credited that Barbados is obtaining its bay oil from St. John (U.S. Virgin Islands) because "the leaves are much better than in the British Islands." But so the writer of these notes has been informed. If islands like Montserrat, St. Lucia and Dominica allow such a fallacy to remain uncorrected, and do not seek to take advantage of their closer proximity to Barbados, and of

that island's preferential tariff, it is hardly to be expected that St. John will do it for them! Mr. Robson's most recent report should help to correct the impression that St. Thomas and St. John are the only centres of supply of bay leaves and oil.

A recent report on agriculture in Tortola and the British Virgin Islands affords an instance of where St. Thomas provides the British Islands with an important market. The prosperity of Tortola was extraordinary during 1920-21, and this was to a large extent due to the demand in St. Thomas for vegetables, especially onions. Although coco-nuts are extending with the arrival of white settlers, the principal money crop, however, in Tortola, is cotton, grown by the peasants. During the year Tortola was able to secure very good prices for its cotton, and since the crop was handled by the Government, the revenue of the island benefited greatly, so that on March 31st, 1921, Tortola was one of, if not *the*, best-off islands in the West Indies. And it was likely to continue so, for as Mr. Gomez's report shows, the island has a variety of industries in addition to cotton and vegetable-growing, of which stock-raising, hat-making, and fishing are amongst those worth mentioning. But Tortola, like Montserrat, St. Lucia, Dominica, and Barbados, should bear in mind what a good outlook there is for bay rum, which is in demand, and is a two-product article in that its manufacture would not only stimulate the planting of poorer lands in bay trees, but also find an outlet for a grade of rum which most sugar factories should easily be able to prepare and sell or utilise on a profitable and permanent basis.

OBITUARY.

MR. DUGALD CAMPBELL, J.P.

We regret to announce the death of Mr. Dugald Campbell, J.P., which took place at his residence in lower St. Andrew, Jamaica, on the 20th May.

Born in Argyllshire in 1844, Mr. Campbell went to Jamaica as a planter, and was identified with the public life of the Colony for upwards of 43 years. The owner of Rose Hall Plantation, and a Justice of the Peace since 1879, he was elected a member of the Legislative Council for the parish of St. Catherine in 1879, subsequently being appointed a nominated member of the Council. For a number of years he was a member of the Board of Management of the Jamaica Agricultural Society, by whom his counsel was greatly valued. During the war he was Chairman of the Recruiting Committee at Linstead.

MR. RAYMOND PARFAIT DUVAL.

We regret to state that Mr. Raymond Parfait Duval died at Laboric, St. Lucia, on May 22nd, in his 56th year.

Mr. Duval, who was born in the Island, received his education at the Mico Juvenile Schools, which he left early in order to become a clerk in the old-established firm of Barnard & Sons. Before long, however, he started out on his own account, and became a prominent figure in the mercantile community, securing the agency of Messrs. Rylands, of Manchester. Mr. Duval married (as his second wife) Miss Charlotte Rusty, of Laboric, who with his brother, Mr. Epiphane Duval, survive him. His loss will be much felt in St. Lucia, where he was held in high esteem.

Mr. A. W. FARQUHARSON.**TOBACCO IN ST. KITTS.****The Moral of His Mission.**

Mr. Arthur W. Farquharson was accorded a triumphant reception on his return to Jamaica, and a great dinner in his honour was held at the Constant Spring Hotel on June 1st, at which Mr. W. Baggett Gray presided. Mr. A. H. da Costa having cordially welcomed their returning missionary, Mr. Farquharson reviewed the steps which had been and were being taken by The West India Committee, the British Empire Producers' Organisation, and the Royal Colonial Institute to endeavour to secure better tariff treatment of sugar, and indicated that an active campaign in this connection would be necessary. He then referred to the gravity of the Panama Disease menace. It was all very well to criticise Government officers, who could not be interested in the Colony as were those whose living depended on its industries. There was an old saying that a country generally got what it deserved, and he asked them whether they did not think that it was possible to do more than they were doing with regard to the Panama disease, for which no specific cure had yet been found. Banana men should organise themselves into a Vigilance Committee, and all should co-operate in an endeavour to stamp out the disease.

Turning next to the sugar industry, he said that he had had the opportunity of discussing the conditions under which sugar was produced in Java and Mauritius. The advice which he then proceeded to give is thus summarised in *The Gleaner*.

"We must no longer show a contempt for the teachings of science and experience; we must be prepared to make draughts on the large reservoir of knowledge and experience accumulated in other countries. In many sugar producing districts in this island the tonnage per acre was very low indeed. In Mauritius, the yield was not less than 25 tons of canes per acre, which meant three tons of sugar per acre. In Java the yield was 30 to 40 tons of canes per acre. They had in Jamaica in a small way started in experimenting on new species of canes and unless that was systematically kept up, they would find in a few years that the yield would be very poor. He thought they should make every effort to co-operate with a view to put that on an entirely different basis. Planters should contribute to establish in the country experimental stations. He was bound to say that in an agricultural country such as this, the Director of Agriculture was the most important officer; the man in charge of the Agricultural Department was there for the purpose of helping the productivity of the country, pointing out what should be done in order to increase the wealth of the Colony; and he should be constantly at that job working out problems, helping planters and getting the best out of the land. They were behind other Colonies and it seemed that they must help themselves quite regardless of whatever help they might get by arrangement with the British Government."

Subsequent speakers included Colonel Bryan, Hon. William Morrison, and Mr. F. M. Kerr-Jarrett.

It is recorded that in the year of the settlement of St. Kitts, Thomas Warner and his fellow colonists raised a good crop of tobacco.

Following a suggestion made by Sir Eustace Pictet that tobacco should be revived in St. Kitts, *The Union Messenger* of that island states that if this were done it would give steady all-year employment to labourers who have to wait for nearly half the year on the coming crop. "But," adds our contemporary, "there are other industries. We import beef, pork, milk, cheese, leather. A dairy-farm with extensions would make us exporters in all these lines. We export grey crystals, and then import loaf-sugar. The addition of an oven to our sugar factory would convert us to exporters of the finished product. Castor-oil, a good deal of which is imported, could be produced in large quantities in the same way as cotton-seed oil is extracted. These, and many other minor industries which may suggest themselves to the enterprising, would lessen the roll of unemployment and emigration, which are the fruits of our lethargy. As a result of all this indifference to our own interests, we find that we have no reserve, no alternative."

CANADA AND THE WEST INDIES.

The value of the imports for consumption into Canada from the British West Indies during the fiscal years ending March 31st, 1922, 1921, and 1920 were:—

	1922	1921	1920
	\$	\$	\$
British Guiana	6,166,364	5,085,108	7,412,931
British Honduras	79,756	134,739	342,043
Barbados	2,994,539	8,314,901	7,532,265
Jamaica	2,213,873	4,418,002	2,331,833
Trinidad	1,678,658	628,896	960,719
Other B.W.I.	1,320,363	1,471,792	983,973
Total	14,359,873	21,053,593	19,829,764

The value of the exports to the British West Indies from Canada were for the same periods:—

	1922	1921	1920
	\$	\$	\$
British Guiana	2,298,105	3,594,118	3,109,381
British Honduras	150,964	38,783	29,359
Barbados	1,377,984	2,537,987	2,131,195
Jamaica	2,214,164	3,380,961	3,280,515
Trinidad	4,655,923	4,941,374	3,745,644
Other B.W.I.	1,829,798	2,162,771	1,700,092
Total	12,426,938	16,663,126	13,998,047

The imports into Canada of produce in which the British West Indies are principally interested in the years 1922, 1921, and 1914 were:—

	1922	1921	1914
Sugar under 16 D.S.	385,304	310,352	293,834 tons
Cacao	163,978	116,269	68,878 cwts.
Bananas (bunches)	2,157,800	1,706,288	2,638,699
Chile	492,086	514,910	4,745,706 lbs.

JOTTINGS FROM MY NOTEBOOK.

BY AGRONOMIST.

In last Jottings, apalite should read apatite, and amino-acids, amino-acids.

* * *

The *Raw Materials Review* states that a deposit of mineral phosphate has been found at Viatka, in Russia, of gratifying thickness of bed and of good quality. Analysis shows that the composition of the deposit is closely allied to that of the South Carolina phosphates.

* * *

The Louisiana correspondent of *Facts about Sugar* states that experiments have recently been conducted relative to the advantages to be gained from selecting canes for planting which are free from the mosaic disease. It has been found that canes grown from these show more "thrill" and better germination than in the case of canes grown from infected canes, both in the case of plant canes and ratoons.

* * *

A phosphate deposit is stated to have been discovered in March last in the Philippines, estimated to contain 100,000 tons of phosphate and 69,000 tons of guano. The guano contains 3.70 per cent. of nitrogen, 17.68 per cent. of phosphate, and 1.12 per cent. of potash with the best quality, and 1.28 per cent. nitrogen and 25.01 per cent. phosphate with the worst. A factory for turning out a fertiliser from it will be erected at Iloilo.

* * *

Irrigation of cane lands is on the increase in Hawaii. In 1900, out of 68,815 acres in cultivation, 27,090 acres were irrigated, or 42.4 per cent. In 1921, out of 119,855 acres, 63,686 acres were irrigated, or 53.1 per cent. The highest average yield per acre on the irrigated lands was 5.84 long tons in 1914, and the lowest 4.91 tons in 1921. The highest average yield on the non-irrigated land was 4.12 tons in 1915, and the lowest 2.57 tons in 1905.

* * *

In Louisiana there are, in addition to numerous small plants, twenty to thirty cane-grinding plants which turn out syrup only. This is either canned on the spot or sent to canning establishments in New Orleans, where the various qualities are blended, and from which distribution to all parts of the United States takes place. The effort to produce a standard grade has not, however, according to Mr. J. H. Morse, in the *Louisiana Planter*, been entirely successful.

* * *

The Louisiana Experiment Station has been experimenting with the use of molasses for cattle feeding. The *Louisiana Planter* states that cattle fed with a daily ration of five pounds of blackstrap molasses (molasses from 96 deg. refining sugar), in addition to forty-five pounds of silage and five pounds of cottonseed meal have brought the highest price of the year in a neighbouring market. One pound of molasses is said to have the same food value as a pound of Indian corn.

* * *

In the course of an article in *Facts about Sugar* on the essentials which govern the choice of a de-

colourising carbon for sugar manufacture, Mr. W. H. Dunstone, Jun., says that in order to permit of successful filtration, the carbon must not be too fine, but sufficiently granular in texture, and be of a hard physical structure. Different carbons have different selective properties in colour absorption, and one should be chosen which gives a sparkling white, and not a dull grey sugar. The carbon should also be free from mineral acid.

* * *

According to figures given in *The Commercial Review of British Guiana*, there is quite a boom in coffee production in that colony, the amount exported for January-April of this year being 311,413 lbs., as against 24,737 lbs. for the same period last year. In the early days of the colony, Berbice coffee was celebrated, and coffee was an important item in its exports. When, however, the early Dutch settlers left the rivers and migrated to the coast lands, they had to discontinue its cultivation, the conditions being unsuitable for it.

* * *

The Bureau of Chemistry attached to the United States Department of Agriculture is hard at work on the subject of the utilisation of wool-scouring wastes for fertiliser purposes. The experiments take the lines of mixing the concentrated wool scourings with other waste materials. The concentrated liquid waste of the wool scourings is stated to contain 42 per cent. of moisture, 14 per cent. of potash, 1.25 per cent. of nitrogen, and 14 per cent. of grease, while the dried and "de-greased" waste contains 24.5 per cent. of potash, 2.55 per cent. of nitrogen, and 0.6 per cent. of grease.

* * *

Synthetic nitrates for manurial purposes are competing strongly with the natural nitrate of Chile. According to Mr. W. F. V. Scott, the Commercial Secretary to the British Legation in Santiago, in 1894 the Chilean nitrate used was 79 per cent. of the whole; in 1904, 66 per cent.; in 1913-14, 56 per cent., and in 1921, only 33 per cent. To restore the position of Chilean nitrate in the world supplies, according to the *American Fertiliser* it is necessary, *inter alia*, to reduce the production cost by improved methods, and that the Government export tax, which, it may be remarked, constitutes two-thirds of the income of the Chilean Government, be lowered.

* * *

The Chinese have always been great paper manufacturers, and the quality of the paper on which the early manuscripts extant are written is exceptionally good. The art of paper-making is supposed to have originated in China about 2,000 years ago; in fact, it was in China that vegetable fibres were first pulped and pressed for the purpose. The material mostly used is rice-straw, but reeds, bamboo, and the bark of a species of mulberry are also used. The so-called rice-paper, however, is not made from rice, but from the pith of a plant called *Fatsia Papyrifera*. In spite, however, of the old associations of China with paper-making, the value of the paper imported into that country in 1920 was 14,404,650 taels—over £3,000,000.

THE WEST INDIES REVISITED.

By ALGERNON ASPINALL.

(Continued from page 297.)

Of the architecture of pre-earthquake Kingston, the most notable example surviving is Headquarters House, a palatial building of the old Colonial style in Duke Street. Mr. Cundall, in his informative book, "Historic Jamaica," tells how that palatial residence was erected as the result of a bet. In the latter half of the eighteenth century four wealthy and ambitious Kingston merchants, Jasper Hall, Thomas Hibbert, John Bull, and another whose name is forgotten, made a wager amongst themselves as to who should erect the most magnificent building. History does not record who won the bet; but Headquarters House, which was Thomas Hibbert's contribution to the competition, could hardly have been excelled for quiet dignity and noble proportions. This stately mansion, for some years the residence of the Officer-in-Command of the troops, is now devoted to the use of the Colonial Secretariat and the Legislative Council, whose thirty members are accommodated in the great panelled dining-room where Thomas Hibbert was wont to entertain his wealthy friends in days gone by. The offices of the Colonial Secretary are on the upper floor, which you reach by a spacious mahogany staircase. That the dining-room is utterly unsuited to the purpose for which it is now used must be apparent to anyone who has attended a debate there. The Governor, as President of the Legislative Council, sits like a schoolmaster behind a desk on a dais, whilst the Honourable Members, like schoolboys—some indeed unruly—are huddled together at desks set at right-angles to him below, the nominated members to the right, and the elected representatives of the people to the left. Visitors are tucked in alongside the Governor wherever a corner can be found for them. This arrangement did not seem to make for healthy debate, and possibly the discomfort to which the members were subjected may have accounted for the acrimonious nature of some of the discussions, which were so unduly prolonged that the excellent suggestion was made of establishing a time limit for the speakers. Before the war the Legislative Council used to sit twelve or sixteen days every year. Now the Sessions drag on for months, with the result that many business men, whose time is precious, refrain from submitting themselves for election. It is, moreover, obvious that the work of Government departments must suffer when their heads have to sit day after day in Council to secure the Government majority. Mr. Edward Wood, M.P., did well to call attention to this waste of time in his Report on his West Indian mission.

Proposals are under consideration for erecting a more convenient building for the Legislative Council, which is certainly much needed; but it would be a pity if Headquarters House were to go, for it is one of those buildings which should certainly be preserved as a national monument, and with so many vacant sites in Kingston, there should be no

difficulty in finding one on which to erect a building for the local Parliament.

In former days, while the planters resided in the "Great Houses" on their estates, the merchants preferred to live in the town near their offices. Now, thanks to improved means of communication, they live as far out as they can, a popular residential neighbourhood being Liguanea Plain, to the north of Kingston, which Sir Harry Johnston once described as resembling parts of Brixton ("mind you," he added, "the very best parts") put down in the tropics. On the plain there are certainly some red brick villas, which are reached by electric tramcars, but there the fancied resemblance begins and ends. The houses are far prettier than anything that Brixton can show, and in the gardens in which they stand, brick-red and purple bougainvilleas, hibiscus, and elitoria run riot. A characteristic of the neighbourhood is the quaint cactus and pinguin hedges which abound. The former resemble rows of immense cucumbers, each with six parallel rows of prickles along its length, which must make them impassable except for the variety of livestock which can masticate and enjoy the prickly pear or Turk's head cactus. The pinguin fence is even more formidable, and must be dreaded by the "tiel," who would stand a poor chance if he became involved among its spikes. A variety of wild pineapple, the pinguin, has long, narrow leaves which are studded with the most appalling thorns imaginable.

The presence of these plants points to a dry and sandy soil; but in spite of this, the plain is covered with trees, that lend their shade to the pleasant roads, some of which look quite like homely English country lanes till you suddenly realise that the trees are far larger than anything that you have ever seen in England.

On this plain is situated the Liguanea Club, opened by Chief Justice Sir Fielding Clarke at Knutsford Park in 1910, the best, if not the only, real Country Club in the British West Indies. For this rendezvous the fortunate members and their friends make a bee-line every afternoon at four o'clock. There they play tennis, polo, golf, and other games, and dance to their hearts' content, and, at the appropriate hour, quaff the seductive swizzle.

On the plain, too, is King's House, another reinforced concrete creation by Messrs. Nicholson & Corlette, with an immense ball-room supported by big buttresses as a safeguard against earthquakes.

Jamaica has 2,230 miles of main roads, which make it the best of all British West Indian islands for motoring. The credit of being the first to introduce the motor-car into the island is due to Mr. H. C. Davenport, of the West India Regiment, who in 1906 imported an English Rover, which stood No. 1 on the local register. Then American cars began to creep in. The English makers failing to take up the challenge, the result has been that the "divver" from the "Land of the Free" now holds the road to the exclusion of the English car. This is attributable partly to the war, which prevented the English manufacturer from delivering the goods at a

time when planters and merchants were prosperous, and were in the market for motor-cars; but the principal reason for this state of affairs is the comparative cheapness of the American automobile and the enterprise of its manufacturers, who have, through their agents, seen to it that the garages of the island are plentifully supplied with spare parts of their particular makes. If English manufacturers were to adopt similar tactics, their cars would no doubt be more extensively used, especially now that a substantial preference in the tariff is afforded to British goods. Meanwhile, "Tin Lizzies," Buicks, Cadillacs, indeed, the whole gamut of American cars will continue to race about the island.

The main roads, being under the care of the Public Works Department, have a good surface and are well tended, the only material disadvantage being that they are repaired with rough limestone, which plays "old scratch" with rubber tyres. But in Jamaica, as in Trinidad, the heavy motor lorry will have to be reckoned with. It is, indeed, already presenting a difficult problem to the Public Works Department.

Another disadvantage is the unbridged watercourses and fords which have to be crossed, but become impassable after heavy rains. One Sunday morning I set out with Mr. D'Costa, a leading merchant, to pay a visit to the Hon. J. H. Phillipps, Member of the Legislative Council for St. Thomas, at his residence at Morant Bay. After passing Harbour Head, where Admirals Vernon and Rodney were accustomed to water their ships, and the historic Fort Rock, an ancient fortress which spans the route, we crossed several of these watercourses, and it was easy to realise from the immense boulders, trunks of trees, etc., which liberally bestrewed their bed, what they must be like when the heavy rains have fallen in the mountains. One of these dry rivers was fully a hundred yards wide, and, judging by an experience which I had when crossing Sandy Gully in a buggy some years ago, their beds may be so altered in a night by the raging torrents which they carry to the sea, that it becomes difficult to get from them to the bank, and vice-versa, as it is sometimes to cross the bergschrund of a glacier. When endeavouring, with a friend, to make the passage in a bus (the little Victorias which ply for hire in Kingston are always called "buses"), the traces, consisting of old ropes, broke, and the horse made the ascent, while the carriage rolled gracefully back into the bed of the river (luckily dry), greatly to the concern of Edward, the driver, and his faros.

The route to Morant Bay affords occasional glimpses of the sea, and a pretty view of a cascade at Roselle. Otherwise the scenery is not quite up to Jamaica standard until the road enters small areas under cane, coco-nuts and bananas in the parish of St. Thomas. These patches develop into large plantations, some furnishing the great White Fleet with bananas for its steamers, which call at Bowden, the port of Morant Bay, and Serge

Island Estate with cane for its gigantic mills. The road then passes through a small town of wooden houses to an open place on an undercliff overlooking the sea, on the brink of which stands the historic Court House, the scene of the tragedy of 1865.

The "Jamaica Rebellion," as it was called, is now happily almost forgotten. In 1865 the island had for some time been in a state of unrest, which was accentuated by the high cost of foodstuffs resulting from the American war. To make matters worse, the Governor, Mr. Edward John Eyre, was at loggerheads with the House of Assembly, and it only required a spark to set the island aflame.

On October 7th the conflagration burst out. On that fatal day, whilst the magistrates were trying a negro for trespass, an unruly mob, armed with bludgeons, and accompanied by a band of music,



The Court House at Morant Bay.

This was the scene of the outbreak of the Rebellion of 1865.

broke into the Court House and rescued the prisoner. Two days later a warrant was issued for the apprehension of twenty-eight of the rioters at the village of Stoney Gut, whence they came; but all efforts to execute it proved fruitless owing to the hostile demeanour of the people.

Baron von Ketchholdt, the Custos, or Chief Magistrate of the Parish, a naturalised German settler, accordingly reported the occurrence to Governor Eyre, who at once instructed the naval and military authorities to be prepared to give assistance if it should be needed. It arrived, however, too late, for on October 11th, at about four o'clock in the afternoon, whilst the magistrates were deliberating as to what should be done, a further determined attack was made on the Court House. The Deputy Clerk of the Peace hurriedly lined up in front of the building the few volunteers whom he had summoned from Bath, and von Ketchholdt, standing on the steps, exhorted the mob not to enter the square. His appeal proved of no avail. The people pressed on, and the Riot Act having been read, the volunteers fired a volley. Then, before they could re-load, they were overwhelmed by force of numbers. The infuriated crowd thereupon raided the police barracks near by and rushed to the Court House, which

they endeavoured to storm. Failing to enter it, some miscreants then set fire to the building, and the occupants, being now compelled to evacuate it, were killed almost to a man.

Retribution followed swiftly. Martial law was proclaimed, and many of the ringleaders in the affair, including George William Gordon, of Cherry Garden, who by his speeches had aroused the passions of the people, were put to death. The rebellion was then at an end; but for many years thereafter the deplorable episode was the subject of acrimonious discussion in Parliament, in the Law Courts, and in the Press, and to this day the action of Governor Eyre in causing Gordon to be removed from a district where there was no martial law to one where it was in force, and there tried, is one of several leading cases arising out of the disturbances that are still cited in the Courts of Law throughout the British Empire.

The Court House, rebuilt soon after these disturbances, is a two-storeyed building of limestone distempered yellow, with steep sloping red roof. The court and offices are reached by a double staircase constructed of brick. Behind the building is a yard paved with red bricks, and the embrasures of an ancient fort looking out to sea. In front of it is a flagstaff, on which the Union Jack, the symbol of liberty and ordered government, still floats. As we viewed these historic sites, the voices of the congregation singing a morning hymn were wafted to us through the open windows of the little Parish Church near by, and it was hard to realise that the quiet of this peaceful little village could ever have been disturbed by such terrible events as those of 1865. *(To be continued.)*

WEST INDIAN MAIL NOTES.

Antigua's New Hospital.

Writing on the 2nd June, Hon. Donald McDonald says: There was quite a large gathering at the Public Hospital yesterday afternoon when, in the presence of His Excellency the Governor and Lady Flenoes, His Grace the Archbishop, and the clergy of all denominations, His Honour the Chief Justice, the Official and Unofficial Members of Council, Medical Officers and staff of the hospital and many friends interested, Mrs. Bryson opened the new Children's Ward at the Holberton Hospital. After His Grace had offered up prayers, His Excellency expressed the long-felt want of such a ward, where the children would be treated separately from the grown-ups. His Excellency explained that the cost of this building had been defrayed from a sum of £500 sent back to Antigua by Mr. Bryson's sister, Mrs. Bonthron, who had during the years of the war raised a large sum of money in England for war charities by the sale of Antigua native seed work. His Excellency referred to the good work done by Mrs. Bryson for the poor children of the Island in connection with the Children's Day Nursery and expressed the gratitude of the community to Mr. and Mrs. Bryson for all they had done. Mrs. Bryson, on behalf of the donor, declared the ward open. Mr. Bryson thanked His Excellency for what he had said and explained that the idea of building a children's ward had emanated from his wife as the money had been given to her by Mrs. Bonthron to use it in the best interests of the Island. His Excellency pointed out that the only thing required to complete the building was that it should be wired in to keep the flies out and invited those present

to assist to that end. A hearty and prompt response to this invitation was made, £30 odd being subscribed in a few minutes. This handsome and useful little building, and the good work which it will assuredly do will stand as a permanent memorial to the energy and kindness of Mrs. Bonthron, and to the interest in the welfare of Antigua shown by Mr. and Mrs. Bryson, who happily were able to see it opened before their departure from Antigua and perhaps, if not in name, at least in the minds of many, it will be also a memorial of that gallant lad, Mr. Bryson's only son, who in the great war, just fresh from school, in all the promise of young manhood, bravely gave his life for his King and Country.—On the Hon. Donald McDonald's initiative, a Leeward Islands Agricultural conference was held recently. This conference, which was of a purely informal nature, its object being to pave the way for a regular annual meeting to discuss matters of common interest, was addressed by Mr. Collens, the Superintendent of Agriculture, who spoke on the agricultural possibilities of the various Islands of the group, with particular reference to the minor industries.—Mr. E. M. Tibbets is acting as Colonial Secretary in the absence on leave of Colonel St. Johnston.—Mr. A. E. Cowley, Chairman of the Agricultural and Commercial Society, has been far from well.—The results of the last Cambridge Local examinations show that the Leeward Islands Scholarship had been won by Mr. Ralph Branch. Thus Antigua Grammar School records remain unbroken, this being their fifth consecutive win, and the fourth time the scholarship has been held by one of the Branch family. Mr. Ralph Branch, who gained first-class honours with three distinctions, intends to study medicine in London. The Girls' High School, which for many years has worked quietly and consistently for the welfare of the community and indeed for that of the whole Leeward Islands, has never had a suitable building. The Government would help but cannot. Consequently the proprietors are making a wide appeal on the chance of obtaining support for this excellent cause.—The sudden death from heart failure of Rev. Thomas Streater, Rector of St. Phillip's, deprives the parish and the diocese of a hardworking, genial and much liked priest who had endeared himself to his parishioners.—The Mutual Improvement Musical Society is to be congratulated on a successful concert which was held on May 30th.—Merchants are being inundated with German advertisements and circulars offering to sell everything under the sun.—The Empire Day Celebration Sports Committee, of which Mr. F. G. Harecourt was chairman, brought off a good day's sport on May 24th, when the competitors, most of whom were untrained, achieved remarkably good times.—The War Memorial Committee have selected a design for a memorial, and will be glad if relatives and next-of-kin of those from the Island who were killed or died after serving, will forward particulars.

Barbados' Water Supply.

Mr. J. H. Wilkinson, writing on the 6th June, states that the water supply is the most serious matter in the Island at the moment. The Government have been compelled to discontinue the unlimited supply of water to steamers calling and this is now limited to a very small amount. The effect of this on the trade of the port will naturally be serious as steamers will not call for coal if they are unable to get water.—The weather during the last three weeks has been exceedingly dry and the young canes, which are forward for the time of the year, are suffering and a good rain of two inches is badly wanted. Reaping is fast coming to a close and the tonnage of canes to be acre has been in most cases very much better than was

at one time anticipated.—The British Union Oil Company have practically had to stop operations in consequence of not having water to work their boilers. The manager, Colonel Yates, has made a very liberal proposal to the Government which has been accepted and the Company are now boring for water close to the Belle Plantation on Government land. He hoped they would be successful in obtaining a good supply, in which case the Government stood to gain materially.—An Act (No. 12 of 1922) which received the Governor's assent on the 20th April, authorises the Governor-in-Executive to raise by the issue of debentures, the sum of £17,000, the interest not to exceed 5½ per cent. and the loan to be redeemable in 47 years from the date of issue. Meanwhile, to provide additional revenue, a tax on motor vehicles is imposed, the rates of which range from £1 8s. for a motor cycle without side car, to £8 8s. for a private car not exceeding two tons in weight (Act No. 18 of 1922). A tax is also imposed on owners and occupiers of property and on traders (No. 17 of 1922). The rates for ownership are 1s. for each acre of land and 3d. in the £ on the net annual value of houses or stores. For occupiers other than owners the rate is 3d. in the £ on the net annual value, which is also the rate to be paid by traders in respect of their profit.—The Empire Social and Athletic Club celebrated its seventh anniversary on May 24th with a dinner at the Pavilion, Bank Hall, the Hon. C. P. Clarke, K.C., Attorney-General, presiding. Professor d'Albuquerque, Mr. H. W. Lofty, Lieut.-Colonel M. D. Harrel, Very Rev. Dean Shankland, and Captain Reed were amongst those who delivered congratulatory addresses.—Mr. J. B. Howell has been appointed to act as Colonial Secretary, whilst Hon. W. E. Jackson is administering the Government.

The Attorney-General introduced in the House of Assembly a Bill to authorise the Governor-in-Executive to issue debentures in discharge of the indebtedness of the Public Treasury to the Colonial Bank.—The House approved of the scheme proposed by the British Union Oil Co. whereby the company undertake to sink a shaft near Kingston House with a view to supplying not less than 200,000 gallons of pure water a day.—A new regulation has been passed affecting the Preferential Tariff. To obtain the benefits of this, it lays down that where a through bill of lading is not available, the ocean bill of lading from the foreign port of shipment must bear a certificate signed by the steamship company before the British Consul that the goods have passed through such country in bond.—A large number of friends mourn the loss of Hon. Edward Grannum, C.M.G., late Auditor-General of the Colony, who died at his residence at Hastings on June 6th, at the age of 78. After 45 years in commercial life he entered the House of Assembly, where he attained a prominent position. On his appointment as Auditor-General he was elevated to the Legislative Council.—The *Agricultural Reporter* of June 10th records more favourable weather during the first nine days of June, with an average rainfall of 3¼ inches in the red soil area and 2¼ inches in the black soil districts. Meanwhile the young canes in almost every district except the lowlands of St. Joseph and St. Thomas have been hard hit and have been shrivelled. The ratoons in the red soils continue to grow vigorously. The old crops in St. Joseph have not yet been finished, a few factories expecting to grind until the middle of July. Some estates in Christ Church closed with a good average, 25 and even 30 tons of canes per acre being obtained. Ten to fifteen tons were averaged by estates in St. Philip, whilst some estates in St. John

and St. Joseph have obtained an average of 28 tons. There is still, unfortunately, a frequency of cane fires.—The Council of the Chamber of Commerce have replied to the Trinidad Chamber that in view of the financial circumstances of the Colony, they cannot recommend the Government to contribute anything towards the creation and maintenance of a West Indian Trade Representative's office in Canada.

Power Alcohol in British Guiana.

Following the successful experiments with specially treated rum as a motor spirit which were made by Mr. E. C. Freeland, chemist, at Plantation Uitvlugt, and by Mr. W. G. Harry, manager of Booker's Garage, a Government motion is to be introduced in the Combined Court to exempt all denaturing materials from import duty, and further to remit the excise duty on locally manufactured industrial alcohol in respect of the first 100,000 gallons produced. Should these privileges be granted, Messrs. Booker Bros. propose to instal a sulphuric ether still to be used in conjunction with their alcohol still at Plantation Uitvlugt.—The Acting Hon. Secretary of the Associated Chambers has replied to the representatives of the Georgetown Chamber of Commerce regarding the difference in bank rates to the effect that the Demerara branch of the Colonial Bank has reduced the margin from 2½ to 2 per cent., and that the previous widening of the margin was due to the rapid and violent fluctuation in New York, when the rate varied as much as 1 per cent. in a few hours.—Business was started at the new premises of the Colonial Bank, at 48, Water Street on June 6th.—Mr. Nelson Cannon has petitioned the Privy Council to withdraw his appeal from the Full Court of the Colony in the matter of his libel action against the *Argosy*.—Mr. D. C. Gorsira was the recipient on May 23rd of a cheque and an address from the staff of Messrs. Beltercourt, on his retirement from the post of acting secretary after fifteen years' service with that firm.—The *Daily Chronicle* understands that Dr. Percy James Kelly of the Government Medical Service, Ceylon, has been appointed Surgeon-General in succession to Dr. Coymers who has resigned.—The Governor has promised that the Government will view sympathetically irrigation schemes in cases where the inhabitants themselves show they have confidence in the financial success of the undertakings.—On the occasion of his departure to assume the duties of his new office as Inspector of Prisons and Superintendent of H.M. Penal Settlement, Mr. Napleton King, Traffic Superintendent of the Colonial Transport Service, was the recipient of presentations from the staff of the Transport Service and from the clerks of the Georgetown Stollings.—Mr. J. F. Burton, Acting Superintendent of the Georgetown Gaol, has been appointed Assistant Superintendent of the Penal Settlement.—The *Argosy* of June 1st records the death on the previous day of Mr. Francis Thornhill, who was acting for Mr. A. E. Bratt (now on leave) as Manager of Ptn. Leonora. Mr. Thornhill had been associated for over twenty years with the estate, where he started as junior overseer. He is succeeded by Mr. Rhodes, of Ptn. Farm.—The total subscription to the five million dollar loan by the end of May was \$1,509,410.—Mr. Nelson Cannon has submitted to the Georgetown Town Council a housing scheme whereby the Bel Air Park (which consists of about 55 acres) should be bought for \$65,000, and a model township of 400 holdings erected thereon. Mr. J. Wood Davis, Assistant Secretary of the Chamber of Commerce, criticises the scheme on the ground that it would

lead to class segregation. A joint committee of the Legislature and Town Council is to report on the matter.—Some excitement was caused on May 24th by the news of an insurrection amongst some of the prisoners at Barleca, a few of whom, under the leadership of an old ringleader named Doanes, managed to provide themselves with arms and escape. All were eventually rounded up.

British Honduras's Railway.

Doubts having arisen as to the proper construction of the Companies (Consolidation) Act, 1908, and the Companies Act, 1913, of the Imperial Parliament, which are in force in the Colony, provision is made by a recently-passed Ordinance (No. 17 of 1922) as to what bodies shall perform the duties assigned to the Board of Trade, the Bank of England, etc., in the principal Acts.

Mr. A. R. Usher, writing on June 8th, states that the long drought in Belize, which has caused a great deal of hardship to a large number of people, has been interrupted by much-needed rains, which, however, have stopped all mahogany trucking operations in the Colony.—It is rumoured that the Government have received an offer either to extend the Stann Creek Railway or to build a light railway from Belize towards the Cayo, and that the matter is under consideration.

Dominica Limes Attacked by Fungus.

There are strong reasons for suspecting that the "Witcher Tip" fungus of citrus plants, which did great damage in Trinidad in 1918, is now attacking Dominica limes. Fortunately the disease was in the former colony found to be comparatively easy to treat, necessitating the burning of all the dead wood and diseased leaves during the dry season, and a thorough spraying of the trees with Bordeaux mixture as soon as they begin to make new growth. But in Dominica anything like effective spraying of lime plantations would be practically impossible.

Grenada's Medical Service.

The *West Indian*, in a leading article in its issue of May 2nd, paid a generous tribute to The West India Committee, which our contemporary dubs "that watchdog of West Indian interests," adding that if only merchants and planters in the West Indies identified themselves far more with The West India Committee, and acquainted themselves with and even helped to inspire its intutions, greater good would have been done for the West Indies. The article concludes: "For its work during the war in pushing the British West Indies Regiment, and for its splendid organisation which looked after the comforts of 'Our Boys,' the Committee holds an imperishable place in the hearts of West Indians."—Ordinance No. 13 of 1922, which received the Governor's assent on the 30th May, prohibits any missionary, educational or philanthropic work being carried on in the Colony by an alien without the Governor's permission in writing.—Mr. T. M. Commissions and T. W. S. Garraway, have been appointed Police Magistrates of the Colony.—A Committee with His Honour R. Popham Lobb as chairman, has been appointed to inquire into the Medical Service of the Windward Islands, the scope of inquiry including such questions as salaries, pensions, etc. The following are the members: Hon. D. Paterson, Hon. J. T. de la Mothe, and C. F. P. Renwick (representing Grenada), Hon. Dr. Richards, and Hon. G. Williams (St. Lucia), Hon. Dr. Stephen and Mr. Grant (St. Vincent).—The Legislative Council on May 12th, unanimously carried a resolution of appreciation of the work of Mr. W. J. Lawrence, the late Superin-

endent of Works, who had spent 30 years in the service of the Colony.—Captain C. F. O. Master, the Wiltshire Regt., has been appointed Private Secretary and A.D.C. to the Governor.—The business of the *West Indian* is being transferred to a company, which is inviting applications for shares at five dollars each.—Mr. K. W. Earle, the geologist, has arrived in Grenada in order to investigate the Island's mineral resources.—A serious accident occurred on June 27th in St. George's, when a motor cycle ridden by Mr. J. Bain Wills with Mr. G. Rapier in a side-car fell over a precipice at the side of Tanken Road into a coal yard forty feet below. Mr. Rapier escaped with a few bruises, but Mr. Wills was dangerously hurt.—May 24th, Empire Day, was celebrated by a parade of school children, the arrangements being in the care of Mr. H. V. Mahy. The Governor addressed the children, pointing out that it was possible for the poorest boy in Grenada to climb the educational ladder and finish his education in a British or other University.

Jamaica's Subsidy to Canadian Service.

The Legislative Council on June 7th voted the £5,000 asked for by Canada to help make good the loss incurred in the Government Merchant Marine Service provided under the Canada West Indies Trade agreement. Several elected members complained that Canada had not fulfilled her part of the pact in failing to supply a fortnightly service.

Twentieth Century in St. Kitts-Nevis.

A system of combined flash light and telephone communication between St. Kitts and Nevis (at a cost to the transmitter of a penny a word) was started at the beginning of June.

Tobago-Trinidad Route.

Mr. Robert S. Reid, writing on the 31st May, states that on the Governor's return from his recent visit to Tobago he landed at Togo, a new road from which to Sangre Grande has recently been pushed through in order to establish motor traffic from Toco to Port of Spain, enabling the Governor to have dinner in Governor's house the night of his landing. For mail and other quick services a route from Tobago via Toco would be useful, but for merchandise or produce it would be more expensive than the sea-route to Port of Spain, and would involve a motor drive of about 30 miles to Sangre Grande Railway Station, making about a 60-mile journey through to Port of Spain.—Thunder and some heavy showers (making the rainfall at Hermitage about 5.28 inches for May) have cleared away the heat-baze.—The cacao trees are about cleared of old crop, and there is a fine flush of flowers and young fruit, which, it is hoped, may develop into a big crop of ripe pods in September or October.

Trinidad Wants Agricultural Bank.

The Secretary of State has approved the carrying out of a scheme for supplying Princes Town, Arouca and Sangre Grande districts with water, the cost of which is estimated at £27,700, being charged to the million pound loan of 1920.—His Excellency the Governor took the chair at a meeting of the Agricultural Society on June 8th, which was attended by Sir Francis Watts. A resolution standing in the name of Mr. A. B. Carr, was adopted urging the absolute necessity for the establishment of a Government Agricultural Bank. Sir Francis Watts spoke on the subject of the Agricultural College, inviting members of the Society to visit the site and see what was being accomplished.

WEST INDIES AT WESTMINSTER.

Imperial Preference.

West Indian affairs have recently been brought prominently before Parliament. To begin with, frequent reference to those colonies was made in the debate in the House of Commons on June 19, in the discussion on the tea duty, which was taken as the opportunity for a general discussion regarding Imperial Preference. Again, on June 20th, mention was made of the West Indies in the debate, on the section of the Finance Bill dealing with the withdrawal of the Excise Duty in home-produced beet sugar.

In the consideration of the Finance Bill in Committee on June 19th, Major M. Wood moved to omit the provision giving a preference to tea grown within the Empire and raised the whole question of Imperial preference. Mr. Ormsby Gore maintained that so far from it being bad business, we should have lost every single penny, or at any rate a great deal of our trade with our Crown Colonies, if it had not been for Imperial Preference. The preference was given to us by the British West Indies as a *quid pro quo* for the preference we gave to them. The one Colonial Secretary whose name was on the lips of everybody in the Crown Colonies was Mr. Joseph Chamberlain, and nothing that England had done for those Colonies was more appreciated there than the grant of Imperial preference. He hoped that the Chancellor of the Exchequer would not give way to the antediluvian, rigid, obscurantist doctrine preached from the Opposition benches, but would stick to his present policy, and when he wished to reduce the duties on imported articles would do so by a further increase of Imperial preference.

Colonel Wedgwood said that the Labour Party objected to preferences in favour of the Colonies, because they involved putting taxes on the people of this country in order to give higher profits to producers in other parts of the Empire.

Sir R. Horne replied that preference had not merely brought about cheapness in certain commodities of vital necessity in this country. It had increased the trade of our Dominions and Crown Colonies with this country, and was that not a benefit? Did hon. gentlemen opposite say that they would rather trade with the outside world than with our own Dominions? Had they begun to be aware that the markets upon which we most relied were those of our Dominions and Colonies? Were they prepared to propose to business men that we should ask our Dominions no longer to give us their preference? What answer would they get from the mass of the working people of this country, whose employment depended upon our getting sufficient markets to which they could send their products? (Cheers.) The way in which the United States of America was building up and increasing trade on the basis of preference to its own people was becoming a very serious menace to British industry. (Hear, hear.) But, apart from the material aspect of the matter, did anybody say that by taking off this preference, after it had existed since 1919, that they were not going to give a shock to the opinion of their brethren across the seas which would shake to some extent the very fabric of the Empire? What would have been the position of this country to-day if our great Dominions had not stood with us in the time of trial through which we had recently passed? Were they going to strengthen that fine sentiment by flouting

the offers they made to us and by denying to them the preference for which they had asked? There could be no more dangerous course for this Empire to start out on.

Mr. Gideon Murray asked if either the Independent Liberals or Labour Party, or both got into power, they would set upon the Statute Book a measure repealing Imperial Preference. There was no reply, because they knew that if they were to do so they would create the greatest unrest throughout the Empire. The Government's policy was based on the recommendations of Lord Balfour's Committee. Lord Balfour was a convinced Free-trader, and there were many members of that Committee who were also Free-traders, but yet, after examining the whole of the conditions that existed towards the end of the war and those which were likely to exist at the end of the war, they came to the deliberate conclusion that Imperial Preference was necessary in order to maintain the Empire on a satisfactory basis. He hoped the Government would go further and extend Imperial Preference.

On the same day, the revised duties on cocoa were passed. A motion by Mr. T. Thomson still further to reduce the full duty from £1 8s. to £1 3s. 4d. per cwt. was lost by 171 votes to 79. Similarly the revised duties on coffee were carried by 189 votes to 72.

The Sugar Excise Duty.

On the consideration of Clause 6 on June 20th, which provides that the Excise duties on sugar and molasses made from home-grown beet shall cease, Colonel Wedgwood stated that it was the intention of the Labour Party to abolish the indirect taxes upon sugar and thereby lighten the burden upon the whole of the consuming population of this country. Mr. Hanmon moved an amendment limiting the Excise relief to sugar of a polarisation not over 97 degrees. He said that his object was to confine the experimental stations in this country to the manufacture of raw sugar, otherwise the concessions in the Bill would tend to deprive the sugar refiners of a considerable proportion of their activity, and would inflict considerable injury upon the large number of people engaged in that industry. The actual subsidy given under the existing arrangement to Cantley last year had been £26,700. The amount proposed to be given to the industry was considerably in excess of the value of refined sugar without the duty. If this subsidy was given to the sugar beet factories, they would be inevitably placed in unfair competition with our own Colonies. Mr. Waterson, speaking from a consumer's point of view, objected to the increase of subsidy from 6/2½d. per cwt. to 25/8d. per cwt. He asked whether the Chancellor of the Exchequer was aware that many of the shareholders of the Cantley concern were Dutchmen, and said that when British money was taken from British taxpayers it should go into British avenues to encourage British trade. The English refiners were to-day melting Cuban raws, which they offered upon the market after being refined at 22/6 per cwt., and yet a subsidy was offered to the beet factories at the rate of 25/8 per cwt. How could business be conducted in that way?

Mr. G. Roberts said that it was true that if the industry did develop, and it became a big one, of necessity the interests of the refiners would be adversely affected, adding:—"You make and refine sugar in a modern sugar factory. It is obviously most uneconomic to convey beet to the factories and restrict the manufacture to raw sugar, and then to have to transport the raw sugar to a refinery, refineries in this country being mainly situated at a port

because obviously they have hitherto dealt exclusively with the imported raw sugar." He thought that we were indebted to the Dutchmen for having introduced the industry into this country. In order to carry on the industry economically, the two enterprises (Kellam and Cantley) ought to be amalgamated, and they were now engaged in an endeavour to effect that policy. The Dutchmen who had introduced the industry into this country would have no hesitation in providing the necessary funds, but he and his colleagues were concerned that it should be a British sugar beet industry carried on by British capital alone.

Mr. Lyle explained that the polarisation of the raw sugar received in the refineries was between 95 and 96. In the amendment the figure was deliberately put as high as 97, because they did not want to exclude any of the sugars coming from the Colonies and other parts. He disagreed with the suggestion that it would be a retrograde policy for any beet sugar factory not to go to the full length and produce white sugar. Prior to the war, there were not more than five factories in Germany and Austria which turned out white sugar although he admitted that the position was different in France.

Resisting the amendment, Sir Robert Horne said that it would be impossible for the beet factories to carry on a profitable business if, having put up a plant for producing refined sugar, they had to start a process which fell short of that. The Budget proposal was not a subsidy at all; it was only a remission of Excise duty. If the amendment were passed, the factories were doomed as surely as if they had no aid whatever. The Excise duties had only been put on in 1915, because under the Sugar Convention we were bound to impose them. To-day, the Exchequer had nothing to gain by imposing the duties, because there would be nothing to come from the factories. He would remind members who objected to the remission on the ground of its being protective, that all the economists whom they professed to follow had made at least one exception in the case even of protection, and that was with regard to infant industries. John Stuart Mill had set forth the great advantages to be obtained from Protection by the State of an infant industry which had the opportunity of acquiring natural growth and in the end standing on its own feet.

Captain Wedgwood Benn characterised the proposed remission as just another step in the Government's preconceived plan of a stealthy imposition of Protection in this country. It had already done a good deal to destroy that feeling of gratitude on which the scheme of Imperial Preference was supposed to be based. As regards the number of persons employed, this was said to be only 800 or 900.

Was the alternative to this bolstering up of this industry, that the money, amounting to £325,000, which the Government had sunk in it, was going the same way as that on celluloid and dyes and all the other industries into which they had put the public money of this country? Mr. A. Hopkinson said that everybody in commercial circles knew perfectly well that it was quite impossible to realise the Government investment in the beet sugar factories. On a division, the amendment was rejected by 274 votes to 80, and the clause was agreed to. A reduction of the Customs Duties on sugar was moved by Mr. Holmes on June 21st. Sir Leslie Scott (the Solicitor-General) said that the new clause, if adopted, would cost the Government in a full year £14,000,000. Mr. Waterson pointed out that an increase in the sugar duty had a tendency to reduce consumption. In 1913 there had

been consumed in this country more than 34,500,000 cwts., whilst in 1919, when the tax had risen, the consumption had decreased to 30,500,000 cwts., and a year later, with the extensive taxation placed upon this main commodity, the consumption had decreased to just over 22,000,000 cwts. On a division, the clause was defeated by 227 votes to 79.

North America and West Indies Station.

Replying to Lieut.-Commander Kenworthy on the 28th June, Commander Eyres Monsell (Civil Lord of the Admiralty) stated that the force attached to the North America and West Indies station consisted of the light cruisers, *Raleigh*, *Cape Town*, *Calcutta*, and *Constance*, and the sloops *Valerian* and *Wistaria*. The estimated additional cost of sending these ships to Rio de Janeiro for the forthcoming exhibition was £38,000 including the return voyage. The Admiralty did not consider that these ships would constitute a squadron adequately representative of the British Empire.

The Spirits Duties.

A new clause to the Finance Bill substituting a duty of fifty-seven shillings and sixpence per proof gallon for the present Customs and Excise duties and imposing an export duty of thirty shillings per proof gallon, was moved on June 28th by Mr. Ford, who claimed that the result to the Exchequer would be the same. The clause was, however, ruled out of order, as proposing a new duty on export.

(The duties for home-distilled spirits are at present 72s. 6d., and for imported spirits 72s. 10d.)

SOME COMPANY NOTES

Acadia Sugar Refining Co.

The report of this concern, which owns the refinery at Halifax, N.S., shows a loss on trading of \$112,322, after providing for interest on the floating and funded debt. A scheme of reorganisation is to be submitted to shareholders, and it is proposed to transfer the undertaking to a new company to be domiciled in Scotland.

Trinidad Leaseholds, Ltd.

Speaking at the annual meeting of Central Mining & Investment Corporation, Ltd., on June 21st, the Chairman, Sir Lionel Phillips, in referring to the Trinidad Leaseholds, Ltd., said that production was satisfactorily maintained up to the close of last year, but had been restricted for some months past owing to storage congestion and the company's desire not to produce a greater quantity of oil than could be readily marketed. Great attention had been given to the development of methods for dealing with the high gas pressures encountered at depth, and hopes were entertained of a successful solution of this difficult problem. The extensions to the refinery were practically completed, and the plant was now capable of treating largely increased quantities of crude oil. Mr. Beaumont, the general manager, who had recently assumed charge of the property, was hopeful of its future and was approaching his big task with vigorous enthusiasm and capacity.

STEAMER SAILINGS.

To	From	Packet	Sailing
West Indies	... London	... <i>Scientist</i> ...	... July 7
Jamaica	... Liverpool	... <i>Chancellor</i> ...	... .. 8
Jamaica	... Bristol	... <i>Motagua</i> ...	... .. 11
B. Honduras	... Liverpool	... <i>Warrior</i> ...	... .. 13
B'dos & T'dad	... Liverpool	... <i>Alexandrian</i> ...	... .. 15
B'dos & T'dad	... Dover	... <i>Stuyvesant</i> ...	... .. 15
Jamaica	... Bristol	... <i>Bayano</i> ...	... .. 17

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Home arrivals from Jamaica, in s.s. *Monsenares*, Liverpool, June 24th:—
 Miss M. K. Barr Mr. D. P. G. Foskey Miss I. L. Watson
 Dr. & Mrs. Crosswell Mrs. J. C. Ganshore Rev. & Mrs. O. Young

Sailings to Jamaica, from Avonmouth, in s.s. *Patoca*, June 27th:—
 Mr. & Mrs. Charnley Miss K. M. Seymour Capt. A. M. Sberloek
 Mr. A. M. Gold

Home arrivals from Jamaica, in s.s. *Camito*, Avonmouth, June 25th.

Mr. & Mrs. Agbenbein The Misses Hudson (2) Mrs. & Miss Warford
 Miss E. Butterfield Mrs. M. Malcolm Mrs. L. Cooper
 Miss E. Cole Mr. N. Jenks Mrs. Connelley
 Mr. & Mrs. de Cordova Mr. & Mrs. de Mercado Mr. E. Gardiner
 Mr. T. Connolly & Jan. Mr. D. Mills
 Mrs. de Lissers Mr. & Mrs. Morrison Mr. & Mrs. Newberry
 Mr. E. Duoe Capt. & Mrs. Richards Mrs. Registrar
 Mrs. Rly Mrs. R. Sauridge Mr. & Mrs. Salmon
 Mr. S. Haughton-James Miss R. Simmons Mr. & Mrs. Stewart
 Mrs. L. Morris Mrs. Simmons Mr. Warren
 Mr. & Mrs. Hudson

Thos. & Jas. Harrison.

Home arrivals from West Indies, in s.s. *Counsellor*, London, June 19th:—
 Mr. & Mrs. Bauerhoff Mrs. F. T. Greenup Mr. C. A. Raven
 Miss Randolph Miss Inglis Mr. & Mrs. R. B. Watts
 Mr. & Mrs. R. Heyson

Home arrivals from West Indies, in s.s. *Scientist*, Glasgow, June 20th:—

Mrs. J. Barclay Mr. F. V. Griffith Mr. A. A. Lindsay
 Mrs. A. Bell Mr. J. T. Greg Capt. F. Ruane
 Hon. & Mrs. F. W. Griffith Mr. R. Harvey

Home arrivals from West Indies, in s.s. *Jutaba*, London, June 29th:—

Mr. & Mrs. L. G. Alston Mr. A. Edwards Mr. B. T. Murray
 Misses A. L. & M. G. Mrs. Pitt Mr. S. F. H. Morse
 Alston Miss H. J. Franklin Mr. & Mrs. O'Dowd
 Rev. F. J. Briggs Mr. R. O. Gill Mr. O. H. Paterson
 Mr. & Mrs. Browne Mr. & Mrs. P. G. Mr. & Mrs. Pereira
 Mr. & Mrs. Bryden Glendinning Mr. J. Pereira
 Mr. & Mrs. Cadman Miss Gomes Mr. & Mrs. Poyser
 Mr. & Mrs. Campbell Mr. & Mrs. Goncalves Hon. E. A. Robinson
 Miss A. B. Chandler Mrs. B. Gooding Mrs. Smith
 Mr. & Mrs. Currie Mrs. & Miss Hayward Miss O. H. Smith
 Mrs. B. M. Deane Mr. J. M. Ironside Mrs. S. Stanley
 Misses C. & A. de Freitas Mr. W. V. Kenney Mr. A. Thomson
 Mr. & Mrs. de Souza Mr. & Mrs. Longmore Mr. J. Weber
 Miss A. Muncaster Miss A. Muncaster Miss B. M. Whately

Royal Netherlands West Indian Mail.

Home arrivals from West Indies, in s.s. *Stuyvesant*, Plymouth, June 20th:—

The Rev. O. Darr Mrs. K. Haggard Miss J. Price
 Mrs. E. Beach Mrs. D. Lung The Rev. E. O.
 Mr. & Mrs. A. Brooks Mr. & Mrs. J. C. Rampert
 Miss A. T. Carrington Melintosh Mr. L. H. Scott
 Miss J. Conacida Miss D. McInosh Mrs. D. Cooper Scott
 Mr. W. Dasse Mr. D. G. Milley Miss D. Scou
 The Rev. Father Mr. & Mrs. A. Morrell Mr. I. Skinner
 Dowling Mr. E. T. Newton-Clau Dr. E. M. Skute
 Mr. & Mrs. A. Emlyn Mr. O. L. Nan-Sun-Hing Mr. E. A. Wallis
 Mrs. & Miss M. Greenhalgh Mr. J. H. Phillips The Rev. T. W. Warren
 Mr. A. Young

Sailings to West Indies, from Dover, in s.s. *Venezuela*, July 1st:—

Mrs. & Miss Ball Mr. R. T. Hancock Mrs. K. P. Mustard
 Mr. F. E. Parker Mr. C. Hankey Mrs. & Miss Plummer
 Mr. A. G. V. Berry Mr. S. V. Hicks Mr. H. M. Ramsey
 Mr. Boughton Mr. Huggin Mr. W. R. Redman
 Mr. A. Davis Mrs. A. L. Hayte Mr. E. S. Robinson
 Mr. R. J. M. Field Mr. F. H. Johnson Mr. C. Sanderson
 Mr. H. D. Fletcher Miss A. C. Lord Mrs. N. M. Shepherd
 Mr. J. Yagarty Mr. Maharaj Lieut.-Col. & Mrs. T. R.
 Mr. J. Ford Mr. H. D. Morgan St. Johnston
 Mr. C. Gorsira Mr. W. McKenzie

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates have been kindly supplied to The West India Committee by the respective Governments.

	Anti- s. To Mar. 31	Bar- lades. To Apr. 30	British Gulana To Apr. 30	British Hondura- s. To April 30	Domis- tics To April 30	Grenada. To Apr. 30	Jamaica. To June 3	Mont- serrat. To April 30	St. Lucia. To April 30	St. Kitts Nevis To Apr. 30	St. Vincent. To Apr. 30	Trinidad To Apr. 30
Arrowroot
Asphalt
Baika
Bananas	221,320	116,918	1,853	...	1,560,902	...	1,219	...	...	...
Bauxite	12,470
Bitters	21,999,613
Cacao	482,040	3,540,272	452	1,046,590	...	...	24,321
Cassava Starch	1,148,928	...	...	...	...	480
Cocoa-nuts	708,864	1,647,076	73,157	...	10,879,255	...	25,719	268,900	...	6,573,264
Coffee	411,413	...	...	...	8,421,188	...	...	...	...	50
Copra	21,014	36,316	...	4,140	205,638	...	85,847	...	...	72,803
Cotton, M. Galante	66,252	...	...	...	...	...	304
Cotton, Sea Island	...	7,250	51,493	...	...	...	...	299,139	...	232,877	137,445	...
Cotton Seed	148,624	...	268,900	...	...	150	...
Diamonds	34,534	...	...	...	...	...	...	...	...	...
Dye-woods	14,576	...	...	...	...	...
Ginger	723	1,208,256	...	...	...	640	...
Gold	2,476	...	...	...	...	...	...	...	152,513	15
Ground Nuts	573,286	...	12,892	...	...	...
Honey
Line Juice (raw)	15,673	...	...	18,668	2	...	...	...
... (copied)	44,104	385	...	460	11,444	...	...	...
... oil	39,967	...	...	...	256	...	...	...
Line (citate of)	6,073	...	214,256	...	...	5,040	...	...	...	...
Logwood	626	...	...	...	...	34	...	...	...
Lumber	10,200	1,349	...	50	...	...	4,126	...	...	...
Mahogany	2,050,537	...	892	...	...	192	...	...	...
Mnnjuk
Molasses	52,960	2108,640	7,405	...	...	...	...	658	41,890	65,808	24,504	60,146
Oranges	110,181	...	131,002	...	219,516	...	900	90,898
Essential Oils	2,150	...	...	540	1,623	...	...	...
Petroleum	6,747,952	...	...	...	...	12,040,421
Plumbeo
Rice	3,014,564	...	...	...	...	...	...	...	...	...
Rum	...	115,000	232,238	1,394	...	...	518,160	...	361	...	...	...
Shingles	763,650	...	...	...	...	...	8,000	...	...	...
Sugar	462	8,018	25,438	...	...	...	24,131	19	1,107	2,787	...	22,294
Timber	37,436	...	11,078	...	...	...	2,061	...	...	...

PRODUCE MARKETS SUMMARY.

Telephone—
Central 5542.
Telegrams—
"Carib. London."



15, SEETHING LANE,
LONDON, E.C.3.
July 5th, 1922.

BANK RATE. $\frac{3}{4}$ per cent. as from June 15th.
EXCHANGE. Value of the £ Sterling.

	June 20th	July 4th		June 20th	July 4th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
U.S.A. ...	18 5	18 2	Spain ...	1 2 6	1 2 6
France ...	2 0 11	2 1 11	Germany ...	20 1 7	90 0 0
Belgium ...	2 2 9	2 4 1	Austria ...	2810 0 0	3500 0 0
Italy ...	3 12 3	3 14 9	Holland ...	19 0	19 0

The intrinsic value of the gold sovereign is £1 2s.

SUGAR. Early in the fortnight the price of Cubans, duty-paid landed, in the New York market rose from 4.61c. to 4.88c., but subsequently sagged to 4.35c. On the 30th, however, which, on account of the Independence Day celebrations, was the date of latest quotation available, a recovery took place to 4.76c., equal to 3.15c. c.i.f., or 3.00c. f.o.b. at present freight rates.

Future market values were:—July, 3.23c.; September, 3.34c.; December, 3.41c.

Prices in the home market have further strengthened during the fortnight, the values yesterday being:—London Granulated, 50/3; American Granulated, spot, 49/-; West Indian Crystallised, 41/6 to 43/6; Yellow Crystals, 41/9, and White Mauritius, spot, 47/- to 48/-.

Terminal market values were:—96 deg. (nominal) July, 17/-; August, 17/3. White, August, 22/5; September, 22/3.

The proposed excise duty in Canada on beet sugar has been reduced from 48c. to 24c. per 100 lbs., and will not come into force until January 1st, 1923.

The imports of sugar into the United States for the ten months ending April 30th, 1922, amounted to 3,216,931 short tons, as against 2,975,332 short tons for the same period in 1921. The exports during those periods reached 633,211 short tons and 145,363 short tons respectively. The amounts retained for home consumption, therefore, were 2,563,720 tons in the 1922 period, as against 2,820,168 tons in the 1921 period.

The imports of sugar into the United Kingdom from the Continent during the present year as compared with those for the same time last year throw an extremely interesting and important sidelight on the European position as regards consumption. The beet crop of Europe in 1920-21 was 3,331,000 tons, and in 1921-22 4,107,687 tons. Yet in January-May, 1921, 100,980 tons were imported from Europe into the United Kingdom, and only 38,232 tons in January-May of the present year. In spite, therefore, of the excess of production of nearly 500,000 tons, and of the exchange being generally more in favour of the Continental producer this year than last, only a third of the sugar has been exported to Great Britain—the principal ex-European market—up to now from the Continent of that which came this way in the corresponding period of last year. The differences include Holland, 11,312 tons instead of 42,849 tons; Belgium, 2,417 tons instead of 16,036 tons; France, 19 tons instead of 3,007 tons, and Czecho-Slovakia, 23,286 tons instead of 33,870 tons. These facts, coupled with the removal of import restrictions on the part of Germany and Hungary, and with the considerable buyings on the other side of the Atlantic for Continental Europe, show unmistakably that the consuming power of the Continent is increasing rapidly, a power which, if maintained, will more than absorb the coming European beet crop, which is estimated by Prüssen Geerligs at 4,175,000 tons at raw valuation.

The West Indian sugar statistics in London on June 24th were:—

	1922.	1921.	1920.	
Imports ...	27,482	25,389	31,009	Tons
Deliveries ...	17,601	19,694	18,701	"
Stock ...	14,486	14,079	20,444	"

RUM. There is absolutely no demand either for the home trade or export.

The stocks in London on June 24th were:—

	1922	1921	1920	
Jamaica ...	12,776	11,584	9,474	Puns.
Demerara ...	19,571	17,281	12,544	"
Total of all kinds	41,352	38,697	31,735	"

CACAO is a quiet market. Fair to fine marks of Trinidad have sold at 57/- to 73/- spot; to arrive is rather firm at 57/- c. & f. At auction, fine Grenada sold at 59/- to 61/-. There is practically no export demand.

The stocks in London on June 24th were:—

	1922.	1921.	1920.	
Trinidad ...	6,980	23,923	42,766	Bags.
Grenada ...	10,517	30,892	23,718	"
Total of all kinds	120,589	193,071	252,267	"

ARROWROOT is unchanged. Common to good manufacturing, 3½d. to 4d.; good to fine grocery, 4½d. to 6½d.

BALATA. West Indian sheet is unchanged with sellers on the spot at 8/-.

BAY OIL is unchanged. The last nominal quotation reported was 9/- to 12/-, according to test.

COFFEE generally is a slow market, and prices are easier. At auction, 24 barrels of Blue Mountain sold up to 158/6. Good to fine ordinary Jamaica is quoted at about 70/-. Export business is dull.

COPRA is firm with buyers of West Indian f.n.s. at 22s 10s. c.i.f. Rotterdam or Holland.

COTTON generally has been less active, and quotations of most descriptions show a decline. A retail business has been done in West Indian Sea Island, and prices are unchanged at medium 23d., fine 30d., and extra fine 38d.

HONEY remains very quiet. Dark liquid to darkish amber is quoted at 30/- to 35/-; set palish to pale, 40/- to 50/-; white, 55/- to 60/-. Cuban is quoted at 27/6 to 30/- per cwt.

LIME PRODUCTS. Lime Oil. There are sellers of Handpressed at 10/-, but there is little enquiry. No business is reported in Distilled; there are sellers at 2/-.

Lime Juice. Raw is scarce and wanted. Good Jamaica and really good other kinds would be worth 4/- per gallon. Concentrated is easier in consequence of lower Italian exchange.

LOGWOOD. The market is steady but quiet. The nominal value is about unchanged at 26 10s. per ton.

ORANGE OIL. There are sellers of Sweet at 10/6 to 11/-, but no sales are reported. There is no enquiry for Bitter.

RUBBER. Following the meeting of the Dutch Rubber Producers on June 27th, when it was decided to seek Government assistance in restricting production, the price of rubber advanced sharply to 9d. for crepe and sheet, but it has subsequently declined to about 8d.

SPICES. Small sales of **Pimento** in London have been made at 2½d. to 2½d. per lb., but the market generally is inactive. The German demand has vanished owing to the sharp fall in marks. In **Nutmegs** slightly worry Grenadas have sold at 7d. to 7½d. per lb. Sales of Grenada **Mace** have been made at 1/4 for broken, and 1/6 to 1/9 for red to pale.

WANTS.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

Furnished Flat to let August; one sitting, two bed-rooms, kitchen, bath, electric light, plate and linen; maid available; 8½ gns. weekly.—Mrs. Skinner, 21a, Regents Park Road, N.W.

SECRETARIAL Post wanted in September. Knowledge of shorthand and typewriting.—"S.S.", c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, E.C.3.

The West India Committee Circular

Vol. XXXVII.

THURSDAY, JULY 20, 1922.

Subscription 63 sh. per annum, post free.
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No. 621

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The West India Committee Rooms.

Telephones:
CENTRAL 8642.

Telegrams:
CARIB, LONDON.



15, SREYTHING LANE,
LONDON, E.C. 3.
July 13th, 1922.

OUR COMING TERCENTENARY.

THE Hon. Treasurer of The West Indian Club, presiding at a dinner given in honour of MAJOR J. A. BURDON, C.M.G., the Administrator of St. Kitts-Nevis, on July 14th, reminded the company of the fact that next year will mark the three hundredth anniversary of the settlement of St. Kitts, and consequently the Tercentenary of the British West Indies. We warmly endorse the hope which he expressed, that that festival will be widely observed throughout the length and breadth of the West Indies. Not for many years will it be possible for any British Dominion to celebrate a tercentenary; but we can well imagine what rejoicings there will be when the far-distant day arrives when it is able to do so. British West Indians may well experience a feeling of pride on being able to celebrate the three hundredth anniversary of English settlement in their colonies, and though their scattered and far-flung archipelago is not yet a Dominion, they will, we hope, nevertheless show by celebrations, collective and individual, that they are united at least by bonds of sentiment and sympathy. MAJOR BURDON, responding to the toast of his health, foreshadowed a special issue of postage stamps in the mother colony of the West Indies, and also the possibility of dedicating a Public Park to the use of the people, to mark next year's anniversary. As regards the rest of the British West Indies, the form that the celebrations

might take which naturally suggest themselves are a public holiday, religious observances, sports, and the striking of a special commemorative medal. We commend these suggestions to the notice of the respective Governors.

A TRADE COMMISSIONER.

THE question of the appointment of a West Indian Trade Commissioner and of opening a Trade Office in London was raised again by Mr. ORMSBY GORE, M.P., in the debate on the Colonial Office vote in the House of Commons on July 4th. It will be recalled that Mr. EDWARD WOOD, M.P., in his valuable report, stated that there was an impression prevailing in the West Indies that an official representative with the resources of the Colonial Treasuries behind him could do more in the direction of advertisement and propaganda than an unofficial body. Mr. ORMSBY GORE now suggests that a trade office should be opened in one of our big public thoroughfares "to bring home to the people of this country the vast possibilities still awaiting development" in the West Indies, "and particularly in Trinidad, Jamaica, and British Guiana." It must be borne in mind in this connection that these possibilities cannot become actualities until the labour problem is solved, and that no good purpose can be served by opening an office to attract white settlers and capitalists until an assurance can be given that there will be an adequate supply of black labour provided to carry on the real manual work of development, which is beyond the power of the white man in the tropics. Similarly it must be remembered that the great West Indian staples, sugar, cacao, cotton, coffee, etc., are already well known to the trade, and have their clearly-defined channels of distribution, and that no shop window display would lead to enhanced prices or differentiation in favour of West Indian 96° test sugar, for example, against Cubas. On the other hand, there are certain products that are far more in the nature of specialities of the West Indies, which are practically their exclusive source of supply in this country, and the following readily occur to one's mind in this connection, though the list is probably capable of expansion:—Demerara and grocery muscovado sugars, choice molasses, rum, arrowroot, lime drinks, Jamaica cigars, Blue Mountain coffee, Bahamas sponges, greenheart timber, mahogany, and bay rum. The popularity of these typical West Indian commodities might well be enhanced in this country by judicious display on the lines suggested. As regards minor products, such as guava jelly, sauces, pickles, etc., it must be recognised that

these are not produced on a commercial scale, and that the supply of them is not sufficient to meet a stimulated demand. That the Trade Commissioner would prove of great service in answering enquiries regarding the British West Indies, their climate, their resources and their possibilities goes without saying; but this work is already being performed, not ineffectively, as we venture to think, by THE WEST INDIA COMMITTEE in close co-operation with the Overseas Settlement Committee, and we confess that we feel some doubts as to the desirability of setting up a third body whose functions would certainly overlap with those already being carried out at Seething Lane. The Strand show-rooms are intended to catch the eye of the passer-by—the possible settler for whom the Dominions afford ample opportunities—and the position of the West Indies in this connection is certainly not analogous to that of Canada, South Africa, and Australia. In the circumstances, it is to be doubted whether the outlay on a Trade Commissioner's Office in a business thoroughfare, which could hardly be maintained effectively for less than £5,000 to £10,000 a year, could be justified, and it will be readily understood that the salary of the Commissioner would have to be placed at such a figure as would make him absolutely proof against any temptation to dabble in business. A century ago each West Indian colony of importance had its agent in London. His place has been taken by the Crown Agents for the Colonies, who do all that is necessary in connection with the purchase of stores, the payment of salaries, and kindred matters. Some years ago Jamaica appointed a Trade Commissioner to popularise her rum, and it will be remembered that the experiment proved a ghastly failure. The sympathies of the trade were alienated by his attempt to declare that rum was not rum unless it was made in a pot still—which would have ruled out a considerable part of the output of British Guiana; and this Trade Commissioner, who should have kept aloof from business matters, then proceeded to establish a combine of Jamaica rum producers. We venture, therefore, to suggest that the most advantageous way of securing greater publicity for the West Indies would be to make more use of an existing organisation, namely, THE WEST INDIA COMMITTEE, rather than to establish a new one altogether. Given financial support, THE WEST INDIA COMMITTEE could carry out the work quite as effectively as, and far more cheaply than, an entirely new department, which could not acquire in a day the knowledge of the trade conditions in the United Kingdom and the British West Indies, which can only be gained by years of experience. In throwing out this suggestion, we will conclude by quoting the following comment from the new pamphlet, "Jamaica in 1922," which has just been published, and to which further reference will be made in an early issue:—

"Of late years THE WEST INDIA COMMITTEE in London, which was formally founded about 1780, although it had probably then been in operation for some time, has taken steps to fill so far as it can for the West India colonies the part played by the agencies-general of the autonomous colonies; and by the work of that Committee, sympathy between the West India colonies and the mother

country has been engendered, and the conditions of life in Jamaica and her claims on England are better understood than they were. This was made abundantly evident by the many efforts made by that Committee on behalf of the West India colonies during the war."

THE AGREEMENT AND THE PLEDGE.

FROM Press cablegrams and letters received from the West Indies it would appear that there has been some misapprehension in those colonies regarding the much-discussed "trade agreement" with the mother country. It is true that Mr. Wood, whilst in Trinidad, announced that "His Majesty's Government is prepared, subject to the approval of Parliament, to enter into a formal agreement with the West Indian Colonies that preference on West Indian goods at present entitled to preferential rates on importation into the United Kingdom shall be continued for ten years from the date of the agreement on the basis of reciprocity." Mr. CHURCHILL, however, in his answer to an enquiry put to him in the House of Commons on February 23rd, which was subsequently sent out to the colonies with a covering despatch, made it clear that the "agreement" had been whittled down to an "undertaking." This undertaking is, as Mr. Wood explained in Parliament on July 11th, a guarantee, applicable to all Imperial products from whatever part of the Empire they may come, on objects that enjoy a preference, that the present rate of preference shall be maintained for a period of ten years. It will be noted that the arrangement applies to all products now enjoying preference, and not only to sugar, as some of our friends seem to think. It will apply equally to cacao, and to West African cacao as well as West Indian. It will be noted also that it is the proportionate rate of preference that is to be maintained, and not the present substantive value. Therefore, if at any time the duties are removed altogether from sugar or cacao, for example, the preference on that product will vanish into thin air, as Mr. Wood had to admit, though he added that he wished it would not. But that is not all. Replying to LIEUT.-COMMANDER KENWORTHY, M.P., Mr. Wood stated that the Government, in giving the undertaking, were conscious that they could not bind their successors, as obviously no Government could bind its successors. He added, however, that it was one of the honourable traditions of public life in this country, from which his hon. and gallant Friend, if he formed a Government, would be most reluctant to depart, that pledges which had been given responsibly, and after due reflection by predecessors of whatever party, should be fulfilled. All the same, we confess that we should have preferred an agreement if it had been possible of accomplishment, for we cannot forget that the pledge to guarantee a stated price for wheat for a given period was cancelled by the very Government that made it. Nevertheless, the British West Indies may feel confident that they have a trusted friend so long as Mr. Wood remains in power, and that should the time come when he finds himself in opposition, he and his colleague, Mr. ORMSBY GORE, will be at hand to see that they receive fair play.

SOME NOTES OF INTEREST.

"COCKROACH no argue 'fore fowl."

* * *

The estimate of the JAVA 1922 crop is 1,473,500 tons.

* * *

No less than £328,000,000 of British money is invested in the Argentine.

* * *

A DECOLORISING carbon, called Kelpchar, is now being prepared on a large scale from kelp on the Pacific coast.

* * *

The remainder of Mr. Victor C. Meyer's interesting article on Home-Grown Beet Sugar is unavoidably held over.

* * *

STATE control of sugar in Italy ceases in the middle of August. Italy's consumption is estimated at 270,000 tons per annum.

* * *

JUNE 8th was a record day in the New York sugar futures market, the transactions totalling 71,000 tons, representing about £1,000,000.

* * *

The cost of production of sugar in Cuba before the war was shown by a United States Commission of Enquiry to have been in the neighbourhood of £6 15s. per ton.

* * *

QUEENSLAND pines have been shipped from Brisbane to the United Kingdom and delivered in good order after twelve weeks' journey, ten of which were occupied on the voyage.

* * *

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

* * *

THE Sixth International Exhibition of Rubber, other Tropical Products, and Allied Industries is to be held at the Hall du Cinquantenaire, Brussels, in April, 1924, under the patronage of the King of the Belgians.

* * *

FOLLOWING a series of misfortunes that befell a ship carrying a large shipment of refined sugar, one of the oldest marine underwriting firms in the United States has decided to discontinue writing insurance on refined sugar.

* * *

THE larger factories in Queensland—there are eight of them—have a nominal crop capacity of 16,000 tons of sugar. There is one factory sized at 15,000 tons, two at 12,000 tons, one at 11,000 tons, and three at 10,000 tons.

* * *

THE mean f.o.b. values of Cuban sugar sold to New York and the United Kingdom, taken from ten consecutive fortnightly prices were, after allowance for exchange, approximately :—To New

York, £11 11s. 5d. per ton; to United Kingdom, £12 2s.

* * *

It is said that the ability of Germany to buy sugar, in spite of the depreciated condition of her currency, is due to the fact that her chocolate factories have been selling their products all over the world, and established credits in currencies other than German.

* * *

PASSENGERS booking by the Royal Netherlands West India Mail's service between Amsterdam, Madeira, Paramaribo, Demerara, Trinidad, Carupano, Pampatar, La Guaira, Puerto Cabello, Curacao, Haiti, and New York will, in future, be issued with a free ticket from London to Amsterdam.

* * *

OUT of 1,400,975 tons of sugar that were shipped from Java between the 1st of April, 1921, and the 31st of March, 1922, 620,470 tons went to British India, 302,110 tons to Japan, 299,942 tons to Hongkong, and 83,385 tons to Europe, out of which 9,116 tons were consigned to the United Kingdom, and 10,114 tons to France.

* * *

THE *Confectionery Journal* is dead against cheap sugar in this country. Cheap sugar, says our contemporary, has the undoubted tendency to flood the market with cheap confectionery. If cheap confectionery, it is added, were as good as it is cheap, this would be a consummation devoutly to be wished, but unfortunately it is not only cheap, but in certain respects is sometimes nasty.

* * *

A SAMOAN correspondent of the *Sydney Bulletin*, writing of papaw, says that the present value is 16/- per lb., and that a coolie, without exerting himself, can turn out 1 lb. a day. The juice is obtained by making an incision in the green papaw with a bone or wooden knife. From this it flows into an earthenware cup arranged to receive it. The fruit is left on the tree, and may be tapped several times. The juice should be dried as soon as possible by the sun, or preferably by a hot-air drier.

* * *

SINCE the 22nd of last month the Canadian Government Merchant Marine steamers *Canadian Fisher* and *Canadian Forester* have been calling at Bermuda on both their north and south-bound sailings. This arrangement not only saves passengers from British Honduras, Jamaica, and the Bahamas having to travel via New York to reach Bermuda, which it brings at least 1,800 miles nearer those colonies, but it also provides an alternative route for passengers from Demerara, Trinidad, Barbados, the Windward and Leeward Islands proceeding to Jamaica.

* * *

THE Royal Mail Steam Packet Company announce the resumption, in January next, of their cruises from New York to the West Indies, catering especially for the American season. The luxuriously appointed R.M.S.P. triple-screw steamer *Orca* (16,000 tons) has been allocated to this service, and

additional interest is lent by the fact that the journey from Southampton on January 5th to New York will be the *Orea's* maiden voyage on the North Atlantic run. There will be two tours, the first of which will leave New York on January 24th, and the second on February 24th.

* * *

THE manufacture of compressed yeast for fodder purposes is becoming a prominent industry in Germany. Somewhere about 5,000,000 tons of nitrogenous foodstuffs for horses and cattle were imported before the war, and it is stated that before long Germany will, by her yeast industry, be independent of outside supplies. The yeast is grown in a medium composed of the refuse material from the sugar factories mixed with salts, including ammonium compounds obtained synthetically from the air. One yeast factory recently built produces over 400,000 pounds of compressed yeast per day.

* * *

MR. G. M. TREVELYAN, in "British History of the Nineteenth Century," recalls that Pitt, in proposing the income-tax of 1798, calculated that, of the incomes enjoyed in Great Britain, those derived from the West Indies very much surpassed those derived from Ireland, and from all the rest of the world outside the British Isles. Mr. Trevelyan falls into the same error as that made by Fortescue in attributing the losses incurred during our military operations in the West Indies to the "pestilential climate." It was not the climate that lost us 80,000 men in the campaign of 1793-6, but the lack of sanitation and of the knowledge that yellow fever and malaria were insect-borne diseases.

* * *

As foreshadowed in the CIRCULAR of June 8th, arrangements have now been made which will obviate any overlapping between the direct first-class passenger service of Messrs. Thos. & Jas. Harrison to Barbados, Trinidad, and Demerara, and the new service of Messrs. Elders & Fyffes to Jamaica via Barbados and Trinidad, the following sailings having been arranged:—

Ingoma	...	...	Sailing Sept. 1	London
Intaba	...	...	" Oct. 7	London
Camito	...	...	" Nov. 4	Avonmouth
Ingoma	...	...	" Nov. 17	London
Coronado	...	...	" Dec. 2	Avonmouth
Intaba	...	...	" Dec. 20	London

This joint service, as it now becomes, will not only obviate the difficulties which our West Indian swallows have experienced in getting back to their homes in recent years, but will also afford facilities to winter tourists wishing to visit the Lesser Antilles as well as Jamaica, which have been lacking in recent years.

KOUKA.—Having sliced two or three okros, put them into a pint of rapidly boiling water. Have ready half a pint of Guinea or Indian cornflour or cornmeal, mixing it smooth with half a pint of cold water. When the okros are soft, add a level teaspoonful of salt, and then stir in the wet meal and boil until it is stiff enough to turn out. Finally, throw the kouka into a buttered bowl and turn out on a dish.

THE WEST INDIA COMMITTEE.

At a meeting of the Executive, twenty-four candidates, whose names are given below, were admitted to membership of The West India Committee, making a total of 181 members elected this year. The total membership of the Committee now amounts to 2,420.

Names.	Proposers and Secondors.
Mr. P. A. George (Jamaica).	Mr. Manley Lopez.
Mr. V. L. George (Jamaica).	Mr. E. A. de Pass.
Mr. A. C. Brazao (British Guiana).	Mr. Manley Lopez.
The Venerable Archdeacon Caspar A. Downie (St. Vincent).	Mr. E. A. de Pass.
The Empire Club (Barbados).	Mr. H. de Cembra.
Mr. H. Gray Massiah, M.D. (Barbados).	Mr. John Fernandes.
Mr. J. J. F. Morrison (Country).	Mr. P. W. Verrall.
His Honour Mr. Justice A. D. Russell, M.A., I.L.B. (Trinidad).	Mr. J. H. Aikman.
The Hon. W. Omsby Gore, M.P. (London).	Mr. A. F. A. Clairmonte.
Mr. John Alcindor, M.B., Edin. (London).	Mr. Henry H. Baird.
Mr. Harold F. Ritchie (New York).	Mr. E. Martin Haynes.
Major M. S. Hampton (St. Vincent).	Mr. C. R. Auslin.
Mr. Hamel Hamel-Smith (British Guiana).	Mr. G. Moody Stuart.
Mr. V. A. Pires (British Guiana).	Mr. Claude T. Berthon.
Mr. P. A. Mitchell-Hedges, F.L.S., F.G.S. (Country).	A.M. Inst. C.E.
The United Cane Growers' Association of Australia (Australia).	The Hon. Denis Slyné C.B.E.
Mr. Harvey Gordon-Burr (Nigeria).	Sir G. Townsend Fensick, K.C.M.G.
Mr. Egerton Beck, M.A. (London).	Mr. R. Rutherford.
Mr. Cecil Andrew Phillips (British Guiana).	Mr. Chas. F. Wood.
Mr. James Andrew Phillips (British Guiana).	Miss Audrey Jeffers.
Mr. Arthur G. Solomon (Jamaica).	Mr. W. Gillespie.
The Allied National Corporation, Ltd. (London).	Mr. Thomas Boyd.
Mr. R. G. W. Farnell (Oxford).	Mr. G. M. Frume.
Messrs. Moline & Co. (London).	Mr. Archibald J. Brooks.
	Mr. F. H. Watson.
	Mr. A. H. Hamel-Smith.
	Mr. F. H. Watson.
	Mr. A. H. Hamel-Smith.
	Mr. F. H. Watson.
	Mr. Rutherford.
	Mr. E. A. de Pass.
	Mr. P. I. Seard, F.I.C.
	Mr. R. Rutherford.
	Mr. F. Evans.
	Mr. Fred Williams.
	Mr. R. Rutherford.
	Mr. E. A. de Pass.
	Dr. W. Hewley Wharton.
	Mr. T. Greenwood.
	Dr. W. Hewley Wharton.
	Mr. T. Greenwood.
	Mr. William Wilson.
	Mr. A. W. Farruharson.
	Mr. R. Rutherford.
	Mr. W. Gillespie.
	Sir Edward Davson.
	Mr. R. Rutherford.
	Major John Disney.
	Mr. P. I. Seard, F.I.C.

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$3 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

SUGARS AND THEIR RELATIONS.

It is a common thing to see in the Press that a plant has been discovered which yields sugar, and the impression is conveyed to the general public that a new source of what is commonly called sugar—viz., the cane or beet sugar of commerce—has been found. This is by no means necessarily the case. The term "sugar" in science is applied to a number of bodies whose common property is that they can all be represented chemically as being composed of the elements carbon and water, on account of which they are termed carbohydrates. Starch, dextrine, and woody fibre are also carbohydrates, but these, although they can be converted into sugars by the addition to them of molecules of water, contain less of the latter than the sugars.

Sugars are divided into two classes—simple and compound. The former are also called mono-saccharides, while the latter are divided into di-saccharides, tri-saccharides and tetra-saccharides, which are looked upon as being composed of two or more molecules of the sugars of the first class, from which one or more molecules of water have been extracted.

The simple or mono-saccharide group contain one atom of carbon to each molecule of water. They are called dioses, trioses, tetroses, etc., up to nonoses, according to the number of carbon atoms in the molecule. The greater part of these do not occur in nature, but have been made synthetically. The natural sugars of this class are mainly hexoses, their molecule containing six atoms of carbon, possessing the formula $C_6H_{12}O_6$, and are represented by glucose, or grape sugar, and fructose, or fruit sugar. Cane or beet sugar—that is to say, sucrose or betose—belong to the first class of the compound sugars, the di-saccharides, their composition agreeing with the supposition that their molecule consists of two molecules of hexose sugar, from one of which one molecule of water has been taken away. Maltose, the sugar formed from starch by the action of malt biologically, or of sulphuric acid chemically, and lactose, or milk sugar, are representatives of this group. Raffinose, the sugar found occasionally in beets, belongs to the tri-saccharides, the molecule of which is looked upon as consisting of three hexose molecules, from each of two of which a molecule of water has been abstracted.

As regards the probability of a synthetic sucrose being made, it may be pointed out that no sugar has yet been made in the laboratory by the abstraction of water. The sources of all artificially prepared sugar are the starch and fibre carbohydrates, with which further water is incorporated. A simple hexose sugar can be made in this way and the di-saccharide maltose, which has the same composition as sucrose, but is not sucrose. To obtain the latter it is evidently necessary to first form a hexose sugar, and then combine two molecules of it, at the same time abstracting water. This is what evidently happens in nature, but there is not at present the slightest indication of it being accomplished in the laboratory.

When discoveries of sugar-yielding plants are announced, it will be seen from the above that the probabilities are that it is not a source of sucrose

that has been found, but of one or other of the sugars, probably a hexose, and therefore not fitted for commercial use as a substitute for "sugar."

In connection with the important matter of the composition of sugars, Dr. S. Judd Lewis has recently read a paper at the Society of Dyers and Colourists on the subject of the fluorescence of various substances, especially carbohydrates, in which he brought forward results which have an important bearing on the constitution of sucrose. He found that the fluorescence curve of this body exhibited characteristics different to those of the curves of all the other carbohydrates he examined, except that of lactose. According to Dr. Lewis, these characteristics show that "with multiple molecules composed of several groups of the same kind, as exemplified by maltose and inulin, the fluorescent power in the horizontal section of the curves is proportional to the number of groups in the molecule, and that with molecules built on of groups of different kinds, as in the cases of sucrose and lactose, the fluorescent power may be even less than that of either of its constituent groups." The view generally taken of the constitution of sucrose is that its molecule is composed of two molecules of glucose, which belongs to the mono-saccharide or simple group, from one of which a molecule of water has been abstracted. As mentioned above, Dr. Lewis's observations appear to show that this is not the case. This view is strengthened by the fact that the fluorescent power of inulin (the sugar of dahlias), which belongs to the tetra-saccharide group, is four times that of the mono-saccharide glucose, and that of maltose, which belongs to the di-saccharide group, twice. It would be of great service if Dr. Lewis would apply the fluorescence test to *betose*—beet sugar—and see how far its fluorescent powers agreed with that of sucrose. Agreement would definitely decide the question as to whether the sugar of cane is identical with the sugar of beet or not.

JAVA'S SUGAR CROPS.

The following table, giving details regarding the Javan sugar crop for the last three years, is taken from *Concerning Sugar*, the basic figures being supplied by the Javan Sugar Association.

	1919.	1920.	1921.
Acres of cane harvested ...	340,138	385,647	396,130
Tons (short) of cane harvested	14,644,155	16,126,027	17,348,189
Tons .. of sugar produced	1,472,977	1,701,909	1,824,016
Tons .. of cane per acre...	43.05	41.82	43.79
Pounds of sugar per acre ...	8,661	8,826	9,260
Sugar extraction % of weight of cane	10.06%	10.55%	10.51%
Sugar extraction, lbs. per ton of cane	201.16	211.06	210.26
No. of factories in operation	170	183	184
Acres of cane per factory ...	1,900	2,107	2,133
Tons of cane per factory	81,811	88,120	94,285
Tons of sugar per factory ...	8,229	9,360	9,913
(1) Exports of sugar, tons (short)	2,042,443	1,634,920	1,829,326
Consumption of sugar, tons (short)	145,600	145,600	145,600

(1) On January 1, 1919, there was still a largestock from 1918 unshipped, which gradually was exported. Stocks on January, 1922, 313,600 short tons; March 1, 1922, 10,122 short tons.

THE "MAUSS" CENTRIFUGAL.

A New Continuous Separator.

The heavy pressures used and the deep grooving of modern cane crushing mills cause a large amount of finely divided particles of cane fibre to be carried down with the expressed juice, and it has been found practically impossible to screen these out with any type of perforated strainer. This "cush-cush" or bagacillo is more or less soluble, the rate of solubility increasing with the alkalinity and temperature of the juice, the dissolved substance being called in a general way "gums." The presence of these gums during clarification results in a less increase in purity than there would have been had none been present, and these hydrolysed particles of fibre persist throughout the process, appearing in the final products, sugar and molasses. Remarkable results have, it is claimed, been obtained in practice by the "Continuous Centrifugal Separators," invented in South Africa by Mr. William Mauss. These separators taking the raw juice from the ordinary mill strainer free it almost entirely from suspended matters, not only particles of cane fibre, sand, etc., but what is equally important, from impurities of lighter specific gravity, such as wax.

Recent tests conducted at Sezela Factory, Natal, by Dr. William Arthur Caldecott, D.Sc., F.C.S., etc., showed that the raw juice before entering the centrifugal separators contained 3.81 parts per 1,000 weight of suspended solids, and the separated juice leaving the machine contained 0.18 parts per 1,000, showing 96.6 per cent. of the solids removed. The test took place on the 21st December, 1921, when the juice from the Uba cane was very gummy. The purity of the raw juice was 87.9, while that of the separated juice was increased to 88.6. This might properly be questioned, since "purity" refers to matters in solution, and is not affected by the removal of matters in suspension; but it is claimed to be a fact, the explanation being that very small particles of matter are in suspension in the juice, and cannot be separated by any ordinary process of settling or filtration. These affect the gravity reading to a small extent. When the high centrifugal force developed in the "Mauss" Separator acts on these particles, they coalesce and are taken out of suspension, giving consequently a lower gravity reading of the cleared juice. As the sucrose is unaltered, the purity, of necessity, is shown higher. It is well known that laboratory samples of ordinary strained juice will show a higher density immediately after preparation than they will do after settling for some hours, showing that the solids unavoidably left in suspension affect the reading of the hydrometer.

The "Mauss" Centrifugal Separator is of very simple construction and consists of a series of imperforate conical drums revolving on a vertical spindle at 1,000 to 1,200 revolutions per minute. The spindle is hollow and contains an internal spindle which is attached at its top end to an hydraulic piston and at the bottom end operates

(Continued at the foot of next column.)

AGRICULTURE IN JAPAN.

The agricultural industry of Japan has its own characteristics, its system being quite different from that of other countries, states the *Yokohama Chamber of Commerce Journal*. A report recently prepared by the Japanese Government in connection with the Geneva International Labour Conference points out certain fundamental features of the country's agricultural economy, of which the following is a summary:—

The area of farm land in Japan, the report states, represents only 15.6 per cent. of the whole area of the country; 52 per cent. of the whole population of the country live by farming. The number of agricultural families in Japan is 5,561,000, which includes 29,584,000 men and women.

Rice growing has for many centuries been the leading department of the country's agriculture; animal husbandry is comparatively new, and its combination with general farming is rare. Rice farmers, however, usually practise sericulture and other subsidiary employments in conjunction with their main occupation.

Another characteristic of Japanese farming is the minute division of land under cultivation. In the Kwansai districts one or two chobu is the outside limit of single ownership. In the north-eastern provinces land under a single owner is larger, but it ranges between two to three chobu. This is stated by the official report to be a result of concentration on rice cultivation. Compared with France, Belgium, or Switzerland, where agricultural enterprises are carried on intensively, the ratio of population to land is higher in Japan, the fact being one of the salient features of Japan's farming industry.

(Continued from the foot of preceding column.)

toggle levers to open and close the drum sections. This movement of opening and closing is controlled by a timing gear adjustable to give the cycle of operation necessary. The raw juice is introduced into the bottom drum while the machine is revolving and overflows upwards into all the conical drums. Centrifugal action throws the heavy particles to the periphery of the drums, and the clear juice is decanted over the top lip of the top drum into a gutter which carries it away. When the maximum quantity of solids have been retained, the flow of juice is automatically stopped by the timing gear, which also admits a small quantity of water to displace the remaining juice and then operates the toggle gear, opening the drums, the solids being instantly discharged by the centrifugal force into the outer casing, and falling to a conveyor for removal. The machine works continuously and all operations are entirely automatic, the average period of the cycle being juice decanting and mud collecting 20 to 30 minutes, mud discharging and restarting decantation again 45 seconds.

The machine is driven by belt from any convenient source of power, only five horse-power being absorbed. Messrs. Duncan Stewart & Co., Ltd., Glasgow, have acquired the patent rights for these machines, which are fully protected in all countries.

AMERICAN ENTERPRISE IN CUBA.

The Development of the Sugar Industry.

Mr. Truman G. Palmer has added to his valuable "Loose Leaf Service" four useful pages epitomizing the history of American enterprise in Cuba. As a result of commercial reciprocity which gave Cuban sugars a tariff preference in American markets, American exploiters and American capital have made Cuba the greatest sugar producer in the world.

In 1898, the year the United States freed Cuba from the yoke of Spain, the island's sugar output amounted to 342,208 tons of 2,000 lbs. In 1901, when at the instigation of the American Sugar Trust the Cubans joined the Trust in the agitation for commercial reciprocity with the United States, the Cuban production had increased to 686,310 tons. In 1903, when the commercial reciprocity treaty became effective, the output had reached 946,447 tons. The treaty gave Cuban sugar a preferential of 33.7c. per 100 pounds and in 1914 when the world war began, Cuba's output had reached 2,009,460 tons, which, with the domestic production of 2,194,530 tons in continental and insular United States, provided 892,000 more tons than the latter's entire sugar requirements. Under the terms of the reciprocity treaty, Cuba's preferential is on a percentage basis—20 per cent. lower than the U.S. tariff on sugar from other countries—and it works to give Cuba an advantage, whether the U.S. rate of duty be increased or decreased. An increase of duty of \$1.00 per 100 lbs. automatically increases Cuba's preferential 20c. per hundred, thereby strengthening her ability to prevent the U.S. importation of Javan, Santo Domingo and other foreign sugars. Thus the emergency tariff bill of May 24, 1921, which increased the U.S. duty 74.4c. per 100 pounds, automatically increased the Cuban preferential 14.9c. per 100. On the other hand, while a reduction in the U.S. duty on sugar reduces Cuba's preferential, it discourages the home production of sugar in the United States and thus enlarges the market for foreign sugar.

With the beginning of the world war capital began to pour into the expansion of the Cuban sugar industry at an unprecedented rate, with the result that in 1919 Cuba produced 4,448,839 tons or within 106,000 tons of the total amount of sugar consumed that year in the entire United States. Eighty-four and three-fourths per cent. of this entire expansion came from American-owned mills, some of which were greatly enlarged and others newly erected, thereby increasing their output 1,340,154 tons, while the output of all other Cuban mills increased only 241,292 tons, or 15½ per cent. Of the island's entire output of 4,408,365 tons in 1921, American-owned mills produced 2,331,143 tons, or 53 per cent. of the total.

The difference in conditions and costs of production in the eastern and western portions of Cuba scarcely could be greater if the two sections were located on opposite sides of the globe. For this reason cost production figures which include both east and west Cuba are misleading. Cost of production is much lower in the eastern than in the

western provinces and it is in the eastern provinces where lands are cheaper and yields are heavier that most of the American capital has been invested. Seventy-two per cent. of the 1921 output of the eastern provinces of Camaguey and Oriente was produced in American-owned mills. The western end of the island has been cultivated for centuries. The fertility of some of the soil has been greatly depleted, the eradication of weeds and troublesome foul grasses which grow in profusion require much labour, the sugar mills are so numerous and close together that there is great competition among them for cane, much of it being transported by train loads past several mills before reaching the mill in which it is to be ground. The individual land holdings are not inordinately large, and the lands are fairly high priced for a tropical country. But few of the mills own or control a sufficient area to supply them with cane, most of which is purchased from independent colonos who are in position to negotiate with several mills for the best rate obtainable.

COST OF COLONOS' CANES.

As a consequence, in this section the mills pay the colonos for cane an average of 6 to 8 per cent. of its weight in raw sugar, or say \$3.60 to \$4.80 per ton when raw sugar is selling at 3c. per pound. In the east end of the island cane is purchased on a basis of 4 to 5½ per cent. of its weight in sugar, or \$2.40 to \$3.80 per ton when sugar is selling at 9c. per lb. A difference of 2 per cent. or 40 pounds in the amount of sugar paid the colonos for cane amounts to \$1.20 per ton of cane when sugar is worth 9c. per pound and with an extraction of 11 per cent. or 220 pounds per ton, the difference in cost by reason of this one item is 54c. per 100 pounds of sugar. It is difficult for the large American-owned mills of western Cuba successfully to compete with the more favourably situated mills of eastern Cuba and it is still more difficult for the smaller and less efficient Cuban mills to compete with them. In the race for supremacy the smaller mills are crushed out, as is illustrated by the fact that the 1,190 little Cuban Mills which 50 years ago produced 590,000 tons of sugar, all have succumbed and less than 200 giant mills now produce eight times that amount of sugar.

(To be continued.)

STEAMER SAILINGS.

To	From	Packet	Sailing
B'dos, G'ada, T'dad, & D'ara...	London	... <i>Counsellor</i>	... July 21
West Indies	Plymouth	... <i>Perou</i>	... " 21
Jamaica	Bristol	... <i>Changinolu</i>	... " 25
West Indies	Dover	... <i>Van Rensselaer</i>	... " 29
Jamaica	Bristol	... <i>Coronado</i>	... " 29
B'dos & T'dad...	Glasgow	... <i>Spectator</i>	... Aug. 2
Jamaica	Liverpool	... <i>Nessian</i>	... " 5
B'has, J'acs & B. H'das	Montreal	... <i>Canadian Fisher</i>	Aug. 9
West Indies	Halifax	... <i>Chaudiere</i>	... " 4
G'ada, T'dad & Demerara			
West Indies	New York	... <i>Matuta</i>	... " 8
West Indies	New York	... <i>Guiana</i>	... " 11
West Indies	Halifax	... <i>Chaleur</i>	... " 18
G'ada, T'dad & Demerara			
B'has, J'acs & B. H'das	New York	... <i>Mayaro</i>	... " 22
B'has, J'acs & B. H'das	Montreal	... <i>Canadian Forester</i>	... " 23

DOMINICA'S LIME PRODUCTS.

The Effect of Sicilian Competition.

A meeting of members of The West India Committee interested in Dominica was held in the Committee Rooms on July 5th to consider what means could best be taken to restore the prosperity of the lime industry, in view especially of Mr. Wood's recent report, wherein no fewer than three pages are devoted to this topic. Mr. E. Luxmoore Marshall presided, and those present included Mr. W. Gillespie, Mr. J. Herbert Scrutton, Mr. C. Algernon Campbell, Major R. F. Becher, Mr. W. Morris Fletcher, Mr. Charles Howe, Capt. E. B. K. Hunt, Mr. Charles Mackintosh, Mr. C. M. Rose, and Mr. J. B. Winkworth.

It was complained that one or two statements in the report might lead to misconception, notably where it was said on page 51 that "grave difficulties have been found in the packing and transport of the finished citric acid crystals," which was greatly exaggerated, whilst as regards the implied importance of citric acid to the dyeing industry, it was pointed out that, according to one of the largest firms of distributors, the consumption of this product by the textile trade was normally never more than about 50 tons per annum, whilst at present it amounted to only about 20 tons.

It was also clearly shown that Dominica's present difficulties were very largely due to the accumulated stocks of citrate in Sicily, which now amounted to as much as 24,000 tons, or three years' normal supply, and until these were liquidated, there was little chance of a remunerative price being obtained. It was decided to represent to the Colonial Office the present deplorable condition of the lime trade, and enquire whether the Board of Trade had yet reported on the advisability or otherwise of including citric acid and citrate of lime within the provisions of the Safeguarding of Industry Act.

An Association of Sugar Technologists has been formed in Porto Rico, consisting of chemists, engineers, and agriculturists connected with the sugar industry of that island. It is proposed that the Association meet twice yearly, at the close of the crop and at its commencement, for the reading of papers and general discussion. Professor F. S. Earle has been chosen as President.

The annual report of The West Indian Club, recently circulated, records a membership of 732. The Club Committee announce with gratification that while, owing to financial difficulties arising out of the war, several London clubs have been compelled to close their doors, The West Indian Club has not only survived, but is in a stronger position than it was in a few years ago. That it has come through the crisis successfully is largely due to the loyalty of its members, who, by punctual payment of their subscriptions, can greatly strengthen the position of this institution, which has now entered its twenty-fifth year.

A few subscriptions to the West India Committee are still outstanding. Punctual payment helps the Hon. Treasurers.

THE HOUSE-FLY PERIL.

By SIR ARTHUR SHIPLEY, G.B.E., F.R.S.

(Continued from page 311.)

The importance of the house-fly as a carrier of disease, especially bacterial disease, has recently been recognised, especially in times of war. Moses was as great as a Principal Medical Officer as he was a Director of Supplies; and this is shown in Deuteronomy, Chapter xxiii., where he deals with the need of strict hygiene in the camp.

In the middle of the last century already attention was being drawn to the fact that the house-fly and the blow-fly transmitted various diseases. But it was during the Spanish-American War and the South African War, which followed shortly afterwards, that the part played by these pests in conveying enteric became definitely established. Flies coming straight from the latrines, with their legs and their wings and their proboscides soiled

with typhoid bacilli, would enter the camp and the tents of the soldiers and settle on their food supplies—crawling over their jam, floating on their



FIG. 6.—Pupal-case or puparium of *M. domestica* from which the imago has emerged, thus lifting off the anterior end or "cap" of the pupa: ventro-lateral aspect *a.sp.*, Remains of the anterior spiracular process of larva; *l.tr.*, remains of the larval lateral tracheal trunk; *p.sp.*, temporary spiracular process of nymph; *p.sp.*, remains of the posterior spiracles of larva. (From Gordon Hewitt.)



FIG. 7.—*M. domestica* in the act of regurgitating food. (From Gordon Hewitt.)

milk. Thirty to forty per cent. of the deaths in our South African War were due to typhoid fever. The bacillus, as is well known, is capable of existing for a long time and of persisting alive in the alimentary canal of the insect. Dr. Graham-Smith has shown that the bacilli may remain active for six days after feeding, and that the feet of flies

which have the bacillus on them are capable of infecting surfaces upon which they walk for at least

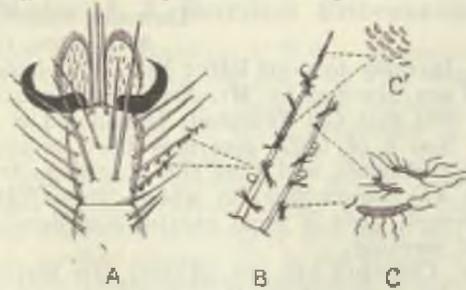


FIG. 8.—A, Foot of a fly, showing hairs bearing bacteria; B, a single hair more highly magnified; C and C', bacteria. Diagrammatic.

two days after first coming in contact with the germs that cause "enteric."

Faichnie reared maggots in dejecta infected with typhoid bacilli, and he was able to show that the flies into which these maggots turned contained virulent typhoid germs in their intestines. There is absolutely no doubt that typhoid is largely conveyed by the agency of these insects; and as flies are perfectly controllable, if "the people will but have it so," it is one of the disgraces of our civilisation that this disease should be so prevalent.

The protective inoculation against enteric is now almost perfect, and its value is shown by quotations from a leaflet issued by the Research Defence Society:—

Sir William Leishman, in a letter published during the recent war, August 22nd, 1914, says: "The benefits of inoculation are so well recognised in the regular forces that we find little difficulty, in foreign stations, in securing volunteers for inoculation; for instance, about 93 per cent. of the British garrison of India have been protected by inoculation; and typhoid fever, which used to cost us from 300 to 600 deaths annually, was last year responsible for less than 20 deaths. Inoculation was made compulsory in the American Army in 1911, and has practically abolished the disease; in 1913 there were only three cases, and no deaths in the entire army of over 90,000 men.

In Avignon, in the south of France, during the summer of 1912, typhoid fever broke out in the barracks. Of 2,053 men, 1,866 were protected and 687 were not. The non-protected had 155 cases of typhoid, of whom 21 died; the protected had not one case. In the winter of 1913 the French Senate resolved that the protective treatment should be made compulsory throughout the French Army; and in special circumstances among the reservists."

Infantile diarrhoea, which so afflicts the crowded, poorer quarters of our cities in the summer, is another disease intimately associated with *Musca*

domestica. The tubercle bacillus is another germ conveyed by flies. House-flies are particularly fond of feeding on saliva; and Hayward, Lord, and Graham-Smith have obtained virulent bacilli from the intestines of dejecta of flies which had been fed on tubes containing tuberculous sputum. These experiments have been amply confirmed by other workers. Anyone who has ever been in Egypt will remember the terrible sight of the flies attacking little children suffering from ophthalmia, and it is believed that the wide prevalence of this most pitiful trouble is attributable to the abundance of flies—the flies of Egypt, a plague even in the times of the Pharaohs. Things do not alter much in Egypt, and the Biblical plagues are wont to recur.

Another disease—anthrax, or wool-sorter's disease—may be conveyed by the same carriers from infected cattle to man, and there is a good deal of epidemiological and bacteriological evidence available to show that flies play an important part

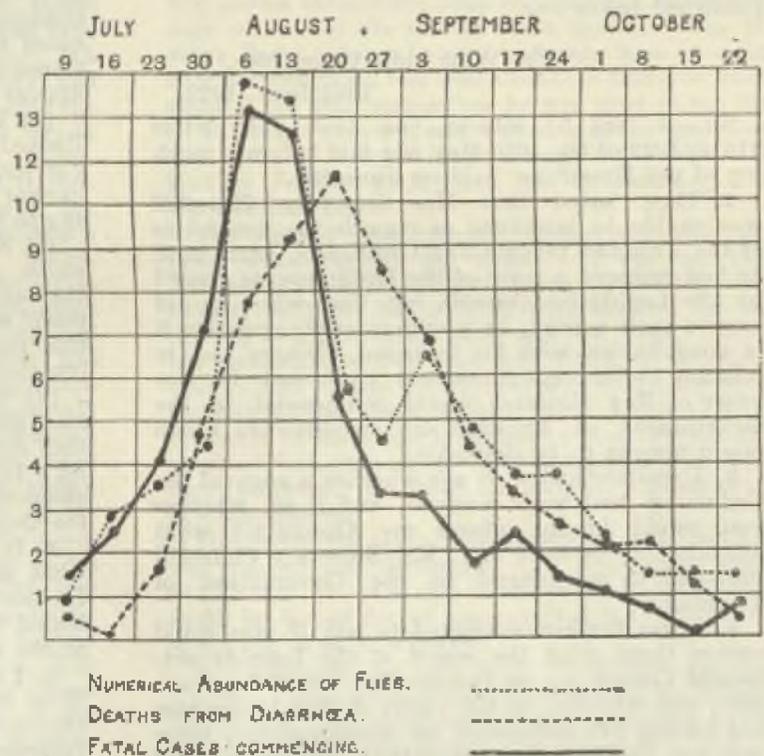


FIG. 9.—Chart illustrating the relation of the numerical abundance of house-flies to summer diarrhoea in the city of Manchester in 1904. Prepared from statistics and chart given by Niven. (From Gordon Hewitt.)

in the spread of cholera, and possibly in disseminating the organisms which cause yaws and tropical sore.

It will be noticed that the fly is not a necessary second host for any of these germs. They are conveyed simply by contact with the proboscis or the legs or some other tainted organ of the fly. The bacilli, however, pass through the alimentary canal apparently unchanged and unharmed, and are deposited either with the regurgitated food from

the fly's stomach (Fig. 7), or with the dejecta of the insect. There is no subcutaneous inoculation—such as takes place in the case of the mosquito when it conveys malaria, or in the case of the tsetse-fly when it conveys sleeping sickness—where the disease-causing organism is injected into the human body. The action of the fly is mechanical, but none the less efficient. The poisoning of the soldiers' food supply was its chief rôle in the war.

INCOME TAX LEGISLATION.

Model Ordinance to be Prepared.

Further correspondence with the Colonial Office regarding West Indian Income Tax Legislation, with special reference to the Income Tax Ordinances of Trinidad and Tobago and Grenada, is published below:—

The West India Committee,
16th June, 1922.

Sir,—I beg to inform you that your letter 21819/1922 of the 16th May was laid before a meeting of my Executive held on June 8th.

2. They noted that Mr. Secretary Churchill was unable to intervene as regards the provisions of the Trinidad Income Tax Ordinance, 1922, until he had received a copy of the Ordinance as passed by the Legislative Council, but that when he did receive such a copy, he would carefully consider it in consultation with his technical advisers and in relation to the representations contained in our letter of May 8th, and would recommend to the Government of Trinidad any amendments which might appear to be desirable.

3. I was instructed to ask whether a copy of the Ordinance had been received, and if so, whether you would kindly inform my Committee what amendments to it, if any, Mr. Secretary Churchill proposed to recommend to the Government of Trinidad.

4. I was further instructed to ask if you could inform them when the report of the Inter-departmental Committee on Income Tax would be available, and whether, in the event of that Committee not having yet completed its investigations, there was any further information that The West India Committee could supply to it.

5. In conclusion I was to state that the criticisms and suggestions made by my Committee regarding the Trinidad Income Tax Legislation applied equally to the Grenada Income Tax Ordinance, *mutatis mutandis*, and to express the hope that Mr. Secretary Churchill would consequently recommend to the Government of Grenada any amendments to the Grenada Income Tax Ordinance which might appear to be desirable in view of the representations that had been made regarding it.

I have the honour to be, etc.,

ALGERNON ASPINALL,
Secretary.

THE SECRETARY OF STATE'S REPLY.

Downing Street,
30th June, 1922.

Sir,—In reply to your letter No. 8830 of the 16th June, I am directed by Mr. Secretary Churchill to inform you that the Trinidad Income Tax Ordinance, No. 8 of 1922, has now been received in this Department, and that the Interdepartmental Income Tax Committee, to whom the Ordinance was referred, gave it most careful consideration at a recent meeting.

2. Mr. Churchill has not advised His Majesty to exercise his power of disallowance in regard to the Ordinance, but has made the following observations in a despatch to the Governor of Trinidad:—

(a) With regard to Section 11 (8), which adopts the three years average as the basis of assessment, I understand that the Interdepartmental Committee propose to recommend that the year previous to the year of assessment should be retained as such basis. Opinion in this country is in favour of changing the present practice prevailing here, provided that proper provision is made for losses. A clause embodying this change will, it is understood, appear in the model draft.

(b) I am advised that Section 25 (1) should be limited to companies incorporated in Trinidad and carrying on business there. A local Ordinance cannot give a foreign company the power purporting to be conferred by the Section.

(c) Section 26 would appear to be too wide in scope, and should be amended in such a way that the tax should only be imposed on the amount of profit made by a seller in the Colony, and not on that made by the purchaser outside. This is the practice followed in this country.

(d) With regard to Section 28, I understand that the Interdepartmental Committee and those whom they have consulted consider that 5 per cent. would be a fairer basis for computing the profits of a shipping company than the 10 per cent. enacted in the Ordinance.

3. It is not yet possible to state definitely on what date the report of the Interdepartmental Income Tax Committee will be available, but it is hoped that the Committee will terminate its work at the end of next month.

4. I am to convey Mr. Churchill's thanks to The West India Committee for their kind offer of further assistance. He understands, however, that the Interdepartmental Committee have now heard sufficient evidence and have collected enough material to enable them to complete their task without further investigation.

5. With regard to the concluding paragraph of your letter under reference, the Interdepartmental Committee hope to be able to produce a Model Ordinance which will possibly help to remove many of the outstanding difficulties connected with Income Tax law in the Colonies. It is anticipated that Grenada along with other Colonies will be requested to bring its Income Tax Legislation into conformity with the provisions of the Model Ordinance.

I am, Sir,
Your obedient servant,
G. GRINDLE.

THE WEST INDIAN CLUB.

Major J. A. Burdon Entertained.

Major J. A. Burdon, C.M.G., Administrator of St. Kitts-Nevis, was the guest of The West Indian Club on July 14th, Mr. Algernon Aspinall, C.M.G., Hon. Treasurer of the Club, presiding.

Proposing the health of their guest, Mr. Aspinall said that Major Burdon was in the heyday of a brilliant Colonial career. After leaving Cambridge, he had discarded the mighty pen for a still mightier sword, serving successively in the Manchester Regiment, the Loyal North Lancashire Regiment, and the Cameron Highlanders, and seeing a good deal of active service with the Royal Niger Company's forces at the close of the nineteenth century, when he was mentioned in despatches on no fewer than four occasions. It was, he believed, largely due to Major Burdon's tact, courage, and determination that what was now a province of Nigeria had been saved for the British Crown.

Their guest's connection with the West Indies might be said to date from 1910, when he had been appointed Colonial Secretary of Barbados. His wise administration and princely hospitality had shown that he was already well fitted to fill the position of a Colonial Governor, which he would no doubt shortly be called upon to occupy. Moreover, at the outbreak of war he had placed Barbados in a posture of defence, throwing across the mouth of the harbour an impenetrable boom which had been commended by the Admiralty. Meanwhile Major Burdon had been called upon to act as Administrator of Dominica. During the too short time in which he had filled this position, he had evolved a scheme of road construction which had met with the approval not only of the Legislature and people of Dominica, but also of the Secretary of State, and it had been no fault of Major Burdon's that the £25,000 earmarked for roads had been subsequently frittered away on temporary palliatives.

The speaker then came to Major Burdon's administration of St. Kitts, referring especially to his compilation of the standard maps of St. Kitts and Nevis, and to his valuable services in improving the health of the people. So successful had his and Mrs. Burdon's efforts been in this direction, that the Presidency afforded an object-lesson of what could be effected in ameliorating that curse of the West Indies, infantile mortality, and those distressing complaints known as yaws and venereal disease. Testimony to their beneficent work had been given by Dr. Laetitia Fairfield, who declared that in dealing with venereal disease, St. Kitts was in advance of the whole of the rest of the West Indies, and by Mr. Edward Wood, who in his recent report had specially singled out Mrs. Burdon for commendation for her work in tackling the problem of infantile mortality, which last year showed a reduction of no less than 25 per cent. over the preceding year's figures.

He concluded by saying that it was peculiarly appropriate that the Club should be entertaining the Administrator of St. Kitts-Nevis, inasmuch as we were on the eve of the 300th anniversary of English settlement in St. Kitts, and consequently

the tercentenary of the British West Indies, which he hoped would be commemorated throughout the length and breadth of those Colonies. He asked Major Burdon whether it was merely a coincidence that steps were already being taken to re-establish the tobacco industry, the first form of cultivation introduced into St. Kitts by Thomas Warner. Possibly at next year's celebrations we might be regaled with the bouquet of Kittifonian cigars besides that of the fragrant Jamaica weed.

Major Burdon, responding to the toast, which was cordially received, said that the Chairman had spoken in laudatory terms of what was known in Barbados as "Burdon's Folly." The credit for this piece of engineering, which might certainly claim to have been effective, seeing that no German raider attacked Barbados, was really due to Mr. Ernest Bowen. As regards what had been said on the subject of public health, Major Burdon paid a tribute to non-resident proprietors, who, he said, had shown themselves fully cognisant of the advantage of saving life in the West Indies. The St. Kitts Baby Saving League had only been in existence for one year, but was already a thing to boast about. In this connection he was glad to see Dr. G. B. Mason present, and wished him the same success with his scheme for a West India Health and Welfare Society as he had had in founding The West Indian Club.

The idea of Tercentenary celebrations was not being overlooked in St. Kitts. It was true that Barbados had celebrated its three hundredth anniversary in 1909, but all that that marked was the cutting of a few words on a piece of wood. With the exception of Barbados and Trinidad, St. Kitts could claim to have been responsible for the colonisation of the entire British West Indies. They intended to mark the occasion by making a really good cricket ground, to raise the funds for which they proposed to issue a special Tercentenary Postage Stamp.

The credit for the revived cultivation of tobacco was due to the Governor. A Kittifonian cigar would not be available next year, and all that could be hoped for at present was the production of a kind of Boer tobacco.

In conclusion, he said that St. Kitts was not "broke," and not downhearted. In that Presidency they had a number of men keenly interested in the Colony, and keenly alive to the value of economy, whose advice he had found specially valuable.

Dr. G. B. Mason then proposed the health of the Chairman, who briefly responded, and it was unanimously agreed to send a cablegram of good wishes to Mrs. Burdon.

The company present included: Mr. John Allsop, Mr. Norton Breton, Mr. L. de Mercado, Mr. A. Elder, Mr. P. Greenwood, Mr. A. Hirsch, Mr. Justice E. C. Jackman, Mr. Gifford N. Knight, Mr. J. F. L. Lamport, Colonel G. A. O. Lane, Captain G. Hudson Lyall, Dr. H. Gray Massiah, Captain F. F. C. Messum, Mr. E. W. Mason, Dr. G. B. Mason, Hon. William Morrison, Mr. G. Parrott, Mr. C. K. Pile, Mr. G. D. Pile, Mr. H. F. Previté, Mr. R. Rutherford, Mr. M. Howard Smith, Mr. G. Moody Stuart, Mr. E. Sturridge and Mr. Clifton Wright.

GOLD COAST CACAO.

Difficulties of Transportation.

General Guggisberg, Governor of the Gold Coast, reviewing the situation in respect of the colony, states that with regard to cacao there has been no falling off in the demand. There was every reason to suppose that it would obtain an export of 140,000 tons by the 31st March. This will probably leave some 40,000 tons of this year's harvest for export during the coming year. This amount, however, covers only the produce of those districts which are within a commercially payable radius of transportation, according to *West Africa*.

As regards future productive capacity, he has during the past year made a close study of this subject, based on the observation of political and agricultural officers and merchants and on his own personal observations. A study of the map showing the area suitable for cacao cultivation and those portions of it which are within reasonably paying distance of the railway or the sea ports, reveals one fact very clearly: The cultivation of cacao which is a non-indigenous product is generally thickest within a day's march of the railway or of good motor roads, and gradually thins off as the distance increases. There are two large areas in which, even during the period of cacao boom, the farmer is unable to dispose of his crop to any appreciable extent. The first area comprises the whole of the north of the Central Province, the eastern portion of the Obuasi district, and the north-western portion of the Akim-Abuakwa district. The above area is rich with cacao fields, but by far the greater part of the crop is absolutely wasted for lack of transportation. The second area is a considerably larger one, and consists of the whole of the western half of the Western Provinces of both Ashanti and the Colony. Even during the boom very little cacao came from this area—at present prices none at all. Motor roads have been pushed out as rapidly as possible, but until a railway goes through the country the increased export will not be appreciable.

At a modest estimate, from 20,000 to 30,000 tons from existing cacao plantations of the areas just mentioned did not reach the beach, even during the high prices of 1920. At present prices, far more is lost. The cacao is there and is waiting to be taken away. In addition to that, the farmer of the Western Province has naturally no incentive at the present time to maintain his existing farms, and has certainly none to increase his production. The moment it is decided to build a railway to any part of the cacao district new plantations will spring up everywhere, and production in that district will be doubled.

The Governor states that he proposes, in due course, to publish the result of his investigations. These lead him to believe that the Gold Coast Colony and Ashanti are at present producing some 170,000 tons of cacao annually, and are capable of producing at least 200,000. It is to be regretted that this last figure has been published as their present production. Such, of course, is not the

case. Their greatest export of cacao in any one year was 176,000 tons in 1919, but it is understood that this was largely part of the previous year's harvest. In 1920 they exported 124,000 tons, and in 1921, 133,000 tons. As these are far greater than in any previous year except 1919, it is obvious that their cacao production is increasing at a rapid rate, and, given means of transportation, will easily reach and maintain an annual output of 200,000 tons, a figure also given by the recent Trade and Taxation Committee.

Besides investigating cacao diseases and the chemical properties of cacao soil, the Agricultural Department has made steady progress in developing other industries. Striking success has so far attended the development of the Accra Sisal Plantations, and the report of a committee on its future prospects will, in due course, be laid on the table. They were fortunate in securing the services of an efficient planter in Mr. Lyne, to whose energy and initiative and hard work the success of the plantation is entirely due.

Three communal coconut plantations have been started, one in each province of the Colony, and have made satisfactory progress. The experiment of employing Singhalese instructors has proved successful.

DOMINICA LIME SQUASH.

With reference to the suggestion made in Mr. Wood's report that non-alcoholic beverages other than lime juice cordial similar to the Australian Kia-Ora Lemon Squash might be manufactured out of Dominica limes, it should be mentioned that for some years past Messrs. L. Rose and Co. have had on the market a Lime Squash which they call Zetril. This beverage is the nearest approach to the juice of fresh limes that has yet been offered for sale.

Mr. Wood's remarks will probably result in further experiments being made. Meanwhile the following particulars of processes of producing lemon juice and lemon oil now under trial at Jaffa in Palestine should be of interest.

The lemons on arrival at the factory are peeled by machinery worked by hand. The interior of the lemons is then placed in large presses from which all the juice is extracted. The machine is so designed so that it does not crush the pips which would give an unpleasant taste to the resultant juice. The juice is put into bottles with an addition of 4 to 5 per cent. of sugar.

The peel is then placed in a vat for distillation, and the essential essence of lemon oil is extracted and then rectified. Four to five per cent. of alcohol is added, and the product is then saleable.

From 22,000 lemons which were purchased at the cost of £E.13, it is possible to make 100 kilos of essence of oil and 800 litres of lemon juice.

The entire process of conversion of 22,000 lemons occupies six men for a period of five days and one man for a period of 30 days. Should the result of this experiment prove satisfactory, Dr. Yevnin proposes to establish his factory on a considerably larger scale.

JAMAICA'S FUTURE.**Sound Agricultural Advice.**

Jamaica lives in the present—"Sufficient for the day, etc." "This," says the *Journal* of the Jamaica Agricultural Society, "applies forcibly to the present time. We live and move and have our being principally by the export of our staple products.

"From 1914 until now, very little fresh planting has taken place with most of our crops, and we have less coffee, cacao, orange and grapefruit trees than we had when the war broke out and the necessity for applying ourselves to produce our own food arose. Unfortunately trees that cost money and years of time to bring to bearing were ruthlessly chopped down to make room for cane.

"The banana industry is our chief money-making industry, yet those who know the effects of Panama Disease in Central America have stated that there may be no 'Jamaica' bananas here to export ten years hence, i.e., our present commercial variety. We trust that this is too pessimistic a view, and that with the increasing efforts being made to check this disease where it has occurred, and our more favourable conditions for checking it, there will be districts left immune. But we should not trust to that, for unless we find new areas to plant bananas—and there is not much room left in Jamaica to grow bananas that can be economically marketed—there must be a reduction of output. Yet there are some places suitable for growing bananas and cacao and coffee, and within a short distance of sea or rail, if a few roads were made to tap them, where there is little of these products grown to-day.

"The valleys of the parish of Hanover are not planted with bananas to the extent they once were, and they were never fully exploited. There is good land in the valley bottoms, and room for an output of many thousands of bunches per week.

"What we want right away is to take advantage of the banana boom and insist that cacao should be planted on every place suitable, and in the higher altitudes, coffee. In the uplands of Manchester, St. Ann, and St. Catherine, also, orange trees should be planted. There should be no delay. There need be no waiting for young cacao plants from nurseries; these can be used later. Take the best cacao pods from the best trees, and plant three seeds in the shade of the young bananas, protecting the seeds and marking the spot with three or four stakes around. It is also good to plant two or three Overlook Beans around the cacao seeds for early shade, and further to mark the place.

"Young coffee trees are available in abundance where old coffee trees stand. Lift the best of these carefully with a ball of earth attached, and plant out in a previously prepared place. Prepare a nursery bed and plant Seville orange seeds; these also can be planted at stake, i.e., where they are to be kept to grow.

"Those with plenty of old Seville orange trees should use them for budding selected sweet oranges or grape fruit."

HONDURAS TIMBER RESOURCES.**Mr. Hummel's Hopeful Report.**

(Continued from page 312.)

Pine forests cover one-third of the whole country, the trees growing on poor sandy soil which is of little use for agriculture. The present stock of pinewood, like that of mahogany, is also sub-normal, being only one-tenth to one-fifth of what it should be. The natural production is plentiful, but many trees are destroyed by fire every year. All that is required to get these pine forests fully stocked is to protect them from fire during the dry season. This measure can be applied on a large scale, and is not expensive. The quality of the British Honduras pinewood is good, similar, though slightly inferior, to American pitch pine; this is the opinion of a large American lumber company which has tested pine logs from British Honduras. As this wood is still quite unknown in the world's market, there may be some prejudice against it at the beginning, as timber merchants are inclined to be very conservative; however, this difficulty can be overcome. The Consolidated Naval Stores, Jacksonville, Florida, are considering pine operations in British Honduras on a large scale, but have difficulty at present in financing them; they require a capital of \$750,000 for doing them. American forest experts anticipate that the supply of similar pine wood in the United States will be nearly exhausted in about 10 years. The British Honduras pine forests should be brought into a good condition by that time.

The chewing gum is the product of various kinds of Sapodilla trees, which grow wild in British Honduras. They are scattered over large areas like mahogany. Four different kinds of Sapodilla trees have come to Mr. Hummel's notice. The best kind is being gradually exterminated by ruthless tapping. The chicle (chewing gum) of three of the above-mentioned four varieties is inferior. Good chicle is often mixed with bad chicle and with substitutes from other trees. The trade in chicle in Central America is considerable, and the world's demand is supposed to be increasing since the habit of chewing is spreading from America to other countries. The cost of collecting the chicle from the relatively few and scattered trees, and of bringing the collected chicle to the port of export is great.

The prospects for concentrated growth of the best species of Sapodilla in pure Sapodilla forests (which has apparently never yet been tried) appear to be almost as good at the present time as the prospects were about 18 years ago for growing Para rubber in pure plantations. In pure Sapodilla forests there would be much saving in collecting and transporting the chicle; there would be no risk of getting it mixed with inferior quality and substitutes; there would be clean handling and cooking in a central factory. If it is desired to produce good chicle in this way (in pure Sapodilla forests), it would be important to make an early start before other countries do so. The Sapodilla

trees produce good hard wood besides chicle, and the best of the four species produces also a good edible fruit.

As regards other useful woods in British Honduras, about 200 different species have come under the notice of Mr. Hummel, who estimates their total stock to be not less than 50,000,000 tons, which no attempt has, so far, been made to exploit. Their systematic exploitation would help to finance the construction of roads and railways. A timber syndicate of Washington has arranged to send a representative to British Honduras this year, with a view to studying the possibility of and utilising these secondary woods on a large scale. This concern is inclined to construct 15 miles of railway at its own expense, if the results of its investigations prove satisfactory.

Mr. Hummel's conclusions are that the forests of British Honduras are of such a nature that with relatively little expenditure, and within a relatively short period, good results may be expected. If money can be made available for improving these forests systematically, it will be possible to grant concessions for exploiting the timber on selected areas *on the condition that the concessionaires should build roads and railways at their own expense.* Nearly the whole of the country can be opened up systematically in this way. It pays to construct a logging railway into a mahogany forest as soon as the exploitable stock of mahogany is raised to about one-tenth of what would be normal, whilst the present stock is only about one-twentieth or less. It is certainly not necessary to wait until these forests are fully stocked. Money spent on systematic forest improvements in British Honduras may, therefore, be considered a good and *productive* investment in more than one respect, *viz.*, from a purely financial point of view, as well as from the point of view of political economy and general administration.

(Continued from page 389.)

Financial Control in British Guiana.

Mr. Stewart asked on July 5th whether it would not be possible to localise the present antiquated system of financial control in British Guiana to Georgetown and its immediate neighbourhood, and work the hinterland entirely under Colonial Office control. Mr. Wood replied that this was a very difficult and broad question of policy which he must excuse himself replying about then. He was aware that there was a British deputation at present in British Guiana, but he thought it was more prudent to await the result.

Air Transport in the West Indies.

Mr. Wood informed Sir E. Bartley-Denniss on July 4th that Messrs. Elders & Fyfes had announced their intention of running a monthly service which would place the Eastern and Western groups of West Indian Colonies in direct communication with one another. The Secretary of State for the Colonies was fully prepared, in conjunction with the Secretary of State for Air, to consider the encouragement of any scheme for air transport in the Colonies which appeared to offer a prospect of eventually becoming self-supporting, but there would scarcely appear to be justification at present for asking the Governments of any of the Colonies to contribute to the cost of air transport.

WEST INDIES AT WESTMINSTER.

The Preference "Undertaking."

Continuing the debate on the Colonial Office Vote on July 14th, Mr. Gideon Murray asked what steps the Government proposed to take in order to give effect to their undertaking that the preference to British sugars should be based on a ten years' agreement. He did not wish to raise the whole issue of preference at that moment, but it was very important if the sugar producers in the British Empire were to get the fullest advantage from the preference which had been granted, that they should be given it upon a ten years' basis.

Mr. Wood explained that, as had been repeatedly stated in that House, that guarantee of preference that he had been authorised to give in the West Indies had been a guarantee that was applicable to all Imperial products from whatever part of the Empire on objects that enjoyed a preference, and that guarantee had to remain at the same rate of proportionate preference for a period of ten years. Captain Henn asked whether it involved any undertaking on the part of the Government that the whole duty should not in any case be removed. Mr. Wood replied that he wished it did, but it did not. All it did was to guarantee that, whatever the duty, they should have proportionate preference for that period, and his hon. friend recognised very well that if the duties were reduced to a very low figure, the value of the proportionate preference would be proportionately diminished. He would take the opportunity of saying that there had been, he thought, some misunderstanding in the West Indies and elsewhere, and he wished to make it absolutely plain that, so far as His Majesty's Government had the power, they wished to do everything in their power to secure the continuance of this policy, and they were confident that that policy would do something to encourage and restore confidence that had been impaired in the sugar industry by these very difficult times.

Lieut.-Commander Kenworthy asked whether any sort of pledge had been given to the West Indies with regard to preference in the future, and if any attempt had been made to bind future Governments, if a pledge had been given by the hon. gentleman, it put his party in a very curious position should they come into power. They did not want to be taunted with wishing to break pledges. The House ought to have been asked if that were the case. He admitted he was not fully seized of the situation, but he thought the hon. gentleman had rather exceeded his power. Mr. Wood said that he could give his assurance that he had not exceeded his powers, and the Government, through him, had given an undertaking to the West Indies for a period of ten years, but in giving that undertaking they had been conscious that they could not bind their successors, as, obviously, no Government could bind its successors. But in giving it, they were not unconscious that it was one of the honourable traditions of public life in this country, from which his hon. and gallant friend, if he formed a Government, would be most reluctant to depart, that pledges which had been given responsibly, and after due reflection by predecessors of whatever party, should be fulfilled. Lieut.-Commander Kenworthy said that he believed he was voicing the opinion of many Liberals in the country and Members of the Labour Party when he said that they could not hold themselves bound by that. He was the last to say we could not carry out pledges entered into legitimately. This one had been smuggled through.

The Colonial Office Mission.

In the course of the discussion on the Colonial Office Vote on July 4th, Mr. Wood referred to his visit to the West Indies, which he described as in the nature of an experiment in Colonial administration. He laid emphasis on the warmth of feeling and hospitality of which the party were the recipients. He hoped that the undertaking that he was authorised to give on behalf of the Government of the continuance of the existing proportion of preference for a period of ten years would go some way to assist to restore confidence among those communities which had suffered so severely. Whether the Government now or at any future date might be disposed to go further was obviously a concern of the Chancellor of the Exchequer. He himself had endeavoured to state the West Indian case as faithfully as he could to that Minister. If it were important to maintain in these Colonies as a condition of progress and stability a European element, that depended upon the prosperity of the sugar industry—a condition which should not be lost sight of.

As regards the movement for representative government, whilst we had, in the West Indies, the universal foundations of loyalty, confidence in British administration, and good will, that was the time to meet the demands to the utmost legitimate extent. It was possible that as time went on, wisdom might suggest and events might warrant further advances along these lines. For the present it was deemed essential to maintain in some form or other the ultimate control exercised on behalf of Parliament by the Secretary of State for the Colonies. Political Federation was a very attractive proposition, but he was at present driven to admit that public opinion in these Colonies was far too centrifugal to make West Indian federation immediately practicable. He regarded the grant of some measure of representative institutions as the first step in education towards this larger policy.

Coming to British Guiana, after detailing the obstacles which hindered its exploitation, such as its lack of population, the rich alluvial coast belt being under sea level, and the wide waterways being interrupted by unmanageable rapids, Mr. Wood stated that in his judgment the only way to obtain the development of the Colony was to make a frank appeal to private enterprise—that private enterprise which would realise the possibilities, take count of the opportunities, and be prepared to wait for its reward. Any such attempt that was substantially conceived and intelligently directed would be deserving of very generous treatment at the hands of the Government. He concluded by saying that he looked eagerly to the Colonial Office, whatever might be the political complexion of any future House of Commons, to endeavour to make a repetition of such visits as that entrusted to him an integral portion of Imperial policy.

Col. Wedgwood said that the best stroke of work the House had done in recent times in connection with Colonial matters had been sending the Under-Secretary to the West Indies. He criticised, however, Mr. Wood's recommendation that a representative to the Colonial assemblies should live in the constituency that selected him. Mr. Ormsby Gore said that it was important to have people in the legislatures who were interested in the mountainous districts or in distant parts away from the capital, and who would bring their grievances properly before the legislature. The danger in the West Indies to-day was that everything was done for the central town, and very little for the outlying parishes. He believed that Federation would come about sooner than his hon. friend (Mr. Wood) thought. There was nothing that wanted more help,

encouragement or push than the question of public health. The mortality rates were very high. Many of the doctors were grossly underpaid, and some impetus was wanted to induce the public not to rely exclusively on the doctors, but to do something themselves. From the economic point of view, the West Indian people felt that this country had not done all it might to help the British West Indies. They saw that the exports of Porto Rico had gone up 2,000 or 3,000 per cent. owing to the economic stimulus and encouragement which America had given to those places since she had taken them over, and they argued, if America could do this, why could not Great Britain also? He would like to see something like a West Indian Trade Commissioner and a West Indian Trade Office opened in one of our big public thoroughfares to bring home to the people of this country the vast possibilities still awaiting development in these islands, and particularly in Trinidad, Jamaica, and British Guiana. He had formed the opinion that in spite of the present economic depression, with drastic oversight by the Colonial Office on the Government's expenditure in those Colonies, the corner would be turned. In a colony like Jamaica, where there was continual pressure upon the Government to spend more money on this and that, it required a man with a very big stick at the Colonial Office to prevent unnecessary expenditure.

Mr. Percy Hurd said it was essential that the cable problem should be resolutely faced. He would be glad to hear what progress was being made with the proposal for a direct cable from Bermuda to Barbados. Again, the use of wireless in Colonies like the West Indies was incalculable as feeders to the cables. He would ask the Secretary of State if he would bear in mind the possibility of bringing the British West Indies within the Empire wireless project.

Mr. Gideon Murray said that the West Indian report was one of the most valuable reports which had ever been issued in connection with the Crown Colonies. He went on to say that the defederation of the Leeward Islands, in his opinion, was as important as the federation of any of the other islands. He welcomed the proposal for the association of Trinidad and the Windward Islands under a single Governor, with this reservation, that the single Governor should only be concerned with the common affairs of these islands, and the local administrators should be permitted to communicate direct with the Colonial Office upon all their local affairs. Lieut.-Colonel Fremantle said that it was a pity that the Under-Secretary had not been able to go on to British Honduras, where he would have found an outbreak of yellow fever which had been predicted by Sir Rupert Boyce, 17 years before, and could easily have been prevented but for the usual proverbial policy in sanitary matters, of "wait and see."

"Home Grown" Beet Shares.

Sir G. Collins, who asked on the 12th June, what change had taken place in the value of the shares in the British Sugar Beet Company since the announcement that the Excise Duty on home-grown sugar would be removed, was informed by Sir Robert Horne (Chancellor of the Exchequer) that the alteration in the average price of the shares of Home Grown Sugar, Limited, since 30th March last was negligible. Sir Robert added that he had no information as to the English Beet Sugar Corporation, Limited.

(Continued at foot of page 388.)

JOTTINGS FROM MY NOTEBOOK.

BY AGRONOMIST.

Increasing interest, says *Facts about Sugar*, is being taken in the manufacture of building board—Celotex, as it is called in Louisiana—from megass. It is stated that the money value in this form of megass is far greater than when it is used as a fuel. A \$500,000 plant for Celotex manufacture has been installed.

* * *

The Bureau of Chemistry of the Agricultural Department of the United States says, in *Bulletin* No. 103: "A table syrup of high palatability and agreeable colour can be made from sugar-cane without the addition of any bleaching or clarifying substance of any kind, and without any other manipulation than the application of heat, mechanical skimming, settling and filtering."

* * *

As the result of four years' feeding tests with cane-sugar molasses, conducted at the Livestock Experimental Station at Jeanerette, in Louisiana, it was found that in fattening pigs, giving them all the molasses they could absorb, in the case of molasses-fed animals, 100 lbs. gain in weight was obtained, at a cost of \$3.95, while in the case in which molasses had not been given, the 100 lbs. cost \$4.19.

* * *

A little blue butterfly, scientifically known as *Cataglyphis onejus*, does considerable damage in Honolulu to the bean crops used for green manuring in connection with the cane cultivation. Mr. F. X. Williams, the field entomologist of the Hawaiian Sugar Planters' Association, has recently been on a mission to the Philippines, having for its object the discovery of some hostile insect to deal with the pest, and has returned with four descriptions of wasps, one hundred specimens of which have been let loose in the canefields near the Experimental Station.

* * *

It has always been a vexed question in Louisiana as to how and where the sugar-cane borer spends his winter, and a new theory on the subject has been advanced by Dr. T. E. Holloway, of the United States Bureau of Agriculture, in *Facts about Sugar*, who considers that in the cane fields planted in October borers remain in the larval stage through the winter, becoming moths in the spring. These deposit eggs on the young plants, and the trouble begins. The cane borer moths are remarkably fruitful, Dr. Holloway stating that if put to it one pair of moths could produce millions of individuals between spring and winter.

* * *

The uses of the Nipa palm are many. From the main stem salt is produced, from the stems of the flower, sugar. The stems are used as floats for timber rafts, and for native fireplaces. When rotten stems are found floating in the streams, they are collected, dried, and ground to a fine powder, said to be most efficacious in the treatment of wounds. The skin inside the base of the leaf stems is largely used for boat balers, while the leaf stems themselves are used for flooring. The heart is

eaten as a vegetable. The leaf ribs are used for making brooms, the flower is made into a preserve, and the husks of the fruit into brushes, the fruit itself being used instead of betel nut.

* * *

One of the most striking instruments of modern times for chemical analysis is the spectrograph, by means of which a photograph is obtained of the spectrum of the substance examined. So delicate is the process that a single drop of London tap water, dried and submitted to the electric arc, shows the presence of the sodium, magnesium and calcium it contains, although the total solid matter present does not exceed the three-thousandth part of a grain, and the ten-thousandth part of 1 per cent. of lead can be identified in a complex mixture. The process can also be used for quantitative determinations of the metals even present in minute traces, the photograph being a permanent record from which the percentage figures can be calculated.

* * *

In that portion of the Zuider Zee called the Wadden Zee, between the mainland and the chain of islands extending towards the German coast, there is an area of some three miles in circumference where seaweed grows abundantly. The water is comparatively shallow, and the bed on which the seaweed grows is not more than five feet below the surface. The reaping season is from June to August, and the seaweed is mown with scythes, the crop being spread out over the adjacent fields to dry in the sun. When it becomes black it is soaked in water and redried, when it is ready for the market. The United States Consul in Amsterdam states that from 2,000 to 3,000 tons are exported annually from that city. The seaweed is chiefly used in Holland for filling mattresses.

* * *

One of the greatest dangers which threatens modern science is the mechanical turning out of "Scientists" by training establishments. Scholastic acquirements and practical experience are all very well in their way, but are not sufficient to produce a true scientist. For this the fundamental want is a scientific mentality, the power to originate a line of research in the right direction, and to apply the results obtained to practical use for the benefit of mankind; not the mere ability to reel out results of experiments, which are far too often "vain repetitions." The practical agricultural scientific knowledge of many of the old nations which have died off, or become effete—the Assyrians, the Egyptians, the Aztecs—were, in many respects, as is gradually being recognised as the result of antiquarian investigation, far in advance of ours, and it is not impossible that their decadence was coincident with the decline of scientific mentality, especially as regards agriculture. The boy is the father of the man, and a great responsibility rests with his schoolmaster in the direction of determining his fitness or not for a scientific career, but a further responsibility, and a heavy one, with those who have charge of his scientific training, so that he should not become a mere imitative machine. Here the Trinidad Agricultural College should help.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 318.)

Mr. and Mrs. Phillipps's house "Miramar" is a charming bungalow set in a garden of bright flowers sloping down to the road, which takes you eventually round the East end of the island to Port Antonio. It commands an exquisite view of the sea, which breaks into white foam on a fringe of coral reefs running parallel with the shore at this spot. Their nearest neighbour is Mrs. Phillipps's brother, Mr. C. Hope Levy, who now fills the important position of Custos, formerly held by the unfortunate von Ketelholdt.

Diagonally to the north-west from Morant Bay stretches the broad Blue Mountain Valley, in the lower part of which—so broad that it is almost a plain—stands the old-time sugar estate of Serge Island. We had heard a good deal of the enterprise of its manager, Mr. Henry Holgate, a Canadian, but were frankly surprised on visiting the place, to find what he was doing to meet the stress of competition of modern times. One hundred years ago the sugar canes at Serge Island were crushed by water power, as we were reminded by a massive aqueduct, whose ancient stone fabric is now picturesquely overgrown with creepers and festooned with lianes. Then for a long time the mills "went about," to use a West Indian term, by steam. Now there has been a reversal to type and water is once more used—not, it is true, directly, as in former days, but to generate electric power for the purpose. To this end a mighty dam has been thrown across the Johnson River about a mile and a half away, and a hydro-electric plant, including several 250 horse-power dynamos, established at its base. The power so obtained is conveyed to the factory, where it performs every function save that of actually boiling the juice and distilling the rum. The initial outlay on this great work was £22,000, but Mr. Holgate expects to profit by saving a heavy annual bill for fuel and also by efficiency.

The dam had just been completed when we inspected it, and the great lake now formed above it promises to add greatly to the amenities of life of the residents in the Great House, by affording fishing and boating to its residents.

But Serge Island is not the only estate in Jamaica on which modern methods are now

applied to the manufacture of sugar. There is a story told of a planter in a neighbouring island who, when it was suggested to him that a cane coated with juice already crystallising in the sun, had not been properly crushed, replied "Maan, doan't you think that that old mill knaws a baad canne when he sees 'em?" Many people believe that this kind of thing still goes on in the West Indies; but they are absolutely mistaken. The old-time planter who lived on his estate and was a manufacturer as well as an agriculturist, is rapidly dying out and no one can truthfully say that, taking them as a whole, the British West Indies are behind the times in respect of sugar production, though their units of manufacture may be smaller than the huge centrals of Cuba—which, some think, have exceeded economic limits.

During my visit a large new sugar factory was taking off its crop of canes at Barnard Lodge, near Spanish Town. Its owners were two enthusiastic



The Serge Island Dam.

resourceful Jamaicans, the brothers Lindo, who, after making a fortune in Central or South America, had returned to the island of their birth with that homing instinct so characteristic of the West Indies, which similarly brought Dr. Graham Pilgrim back to Barbados. Their great factory, that had sprung up as if in a night, since the outbreak of the war, on lands which were formerly a "pen" (as Jamaica's cattle ranches are called), was my first "port of call" in the course of a day's drive across and right along the island to Montego Bay.

Our way out of Kingston lay along the dusty Spanish Town road, and it was worth being nearly blinded by dust to see once again those two historic landmarks on it, the old Ferry Inn, and a little beyond that the famous Cotton Tree, immortalised by Michael Scott in "Tom Cringle's Log." The old Ferry Inn has been allowed, alas! to fall into rack and ruin. Formerly the halfway house between Kingston and Spanish Town, its glory has

departed and it is no longer used as a tavern. Its balcony, or gallery, supported on stone piers, is tottering, and its chances of surviving another earthquake look remote. It is most certainly deserving of a better fate, if only for the memories of the past which it conjures up. Lady Nugent, the wife of Major-General George Nugent, Lieutenant-Governor of Jamaica from 1801 to 1806, gives in her journal a delightful account of what the company at the inn was like in its palmy days. Under the date of June 13th, 1803, she wrote of a visit to it*:

"I was much entertained, for the inn is situated on the road, between Kingston and Spanish Town, and it was very diverting to see odd figures, and extraordinary equipages, constantly passing—kittareens, sulkies, mules, and donkeys. Then a host of gentlemen, who were taking their *songaras* in the Piazza; and their vulgar buckism amused me very much. Some of them got half tipsy, and then began petitioning me for my interest with his Honour—to redress the grievance of one, to give a place to another, and so forth; in short, it was a picture for Hogarth."

No less deserving of respect is Tom Cringle's cotton tree, whose immense trunk was described by Michael Scott as "twenty feet through of solid timber: that is, not including the enormous spars that shoot out like buttresses, and end in strong, twisted roots, that strike deep into the earth and form staves, as it were, to the tree in all directions."

(To be concluded.)

CORRESPONDENCE.

Jamaica's First Motor-Car.

Old Hall, Ramsden, 9th July, 1922.

SIR,—I do not think the "credit" of introducing the motor car into Jamaica belongs to the West India Regiment. In 1904, if not earlier, Mr. Ernest Nuttall, to the admiration of all beholders, used to glide sedately about the Liguanea Plain, with Mrs. Nuttall, in a small steam-driven gig, and I think it was not later than the same year that Mr. John Lockett, of Troja, had a primitive chain-driven Buick, which was the first petrol-driven car I ever rode in in the Island. I remember it as rather a "musical" ride.

Yours sincerely SYDNEY OLIVIER.

(The writer of "The West Indies Revisited" states that his authority is "Jamaica in 1922." According to that valuable pamphlet (p. 123) whilst Mr. Davenport's "Rover" was registered on April 3, 1906, the "Locomobiles," one of which was the "gig" driven by Mr. Nuttall, were not registered until the following month.—ED.)

Germany's Sugar Refineries.

SIR,—I notice that in your report of the discussion which took place in the House of Commons on June 20th, in connection with the remission of the Excise Duties on Sugar, Mr. C. E. L. Lyle is credited with the statement that prior to the war, there were not more than five factories in Germany and Austria which turned out white sugar. It would be interesting to discover upon what authority Mr. Lyle bases this remarkable utterance. Mr. Truman G. Palmer, the expert sugar statistician, in his well-known loose-leaf series "Concerning Sugar," gives the number of beet-sugar factories in Germany alone turning out white sugar in 1913-14 as thirty-nine!

Yours, etc., PLANTATION WHITE.

*Lady Nugent's Journal, Edited by Frank Custall, F.S.A., Jamaica.—The Institute of Jamaica, 1907.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

The illustrations on the next page are reproduced from photographs by Mr. Reginald L. Power, taken on the occasion of the opening of the Sailors' and Soldiers' Club in Port of Spain by the Governor, Sir Samuel Wilson, on June 14th. The building, which was designed by Dr. Maxwell Johnstone, who also superintended its erection, was built by the Trinidad Trading Co., Ltd., at a cost of \$18,500, which has already almost been paid off by money raised in various ways. Various rooms in the building, which will fill a long-felt want, were presented in memory of relatives who fell in the war, their names including Robertson, Haynes, Hoadley, Hadley, Doyle, Exley, Payne, Derwent, Havelock, and Turner. The movement started during the war, when a few ladies, including Mrs. Centeno and Miss Minerva Hart, opened a temporary club for sailors and soldiers in the Grand Stand on the Savannah.

The Bahamas Direct Route to England.

The direct cargo services with England which had been so eagerly awaited, have, now that they are operating, not been found altogether an unmixed blessing. Merchants began ordering largely from England, but the direct freight rate is more than those charged via Canada and New York, and it is now believed that the latter are to be increased so as to equal the direct rate.—The hotel question is still uppermost in the public mind. The plans of the House of Assembly for the erection of two new hotels by next winter were considered somewhat hasty by the Governor, who thought that every effort should be made to induce a steamship company to build an hotel before the Government put up their own. It is still hoped that the Fort Montagu Hotel will be finished in time for next season. The Governor has been in New York negotiating with regard to this question.—Mr. N. B. Burnside, I.S.O., having resigned the post of Auditor of Public Accounts, Mr. W. H. Bethell has been appointed to act in that capacity.—The annual election of three trustees for the Nassau Public Library has resulted in the return of Miss Moseley, M.B.E., Rev. D. Wilshire, and Mrs. H. T. Brice.

Barbados Sugar Crop Results.

June has been a very kind month in the matter of weather, states the *Advocate* of June 21st, several heavy rains having fallen, thus changing the whole outlook. Returns for the crop just over are not yet available, but it is expected that results will be as uneven as last year's distribution of rain, but that the balance will be considerably on the wrong side.—The water situation has been improved by the rains and by the utilisation of wells at Carringtons, St. Philip, from which about 180,000 gallons a day will be pumped into the public mains, enabling the supply to shipping to be continued.—Under the name of Shopkeepers, Ltd., a company has been registered with a nominal capital of \$2,000,000, with the object of enabling retail traders to get into direct touch with foreign exporters and their local representatives.—Walker's Plantation, St. Andrew's, about 800 acres,

mostly pasture, has been sold to a syndicate headed by Mr. Samuel Manning, for £3,000. It was bought two years back by the late owner for £11,000.—The Sugar Industry Guarantee Act, which received the Acting Governor's assent on May 31st, provides that money borrowed by the Sugar Industry Agricultural Bank during the agricultural year beginning on 1st June, 1922, and money already lent to the bank by depositors remaining due on August 31st next, shall be charged on the funds of the bank and the general

in the matter of hotel accommodation, continue, therefore, to be met solely by the "Home" Hotel.

Changes in Jamaica Civil Service.

Hon. A. Noworthy was the guest of the St. Andrew Club (Mr. H. V. Alexander presiding) at a dinner held on June 13th, on the occasion of his leaving the Island to act as Administrator of Dominica.—The *Gleaner* of June 15th records the promotion of Mr. Justice Anthony De Freitas to be Senior Puisne Judge in the place of Mr. H. K. Sissett, who has gone to British Honduras as Chief Justice, and Mr. H. I. C. Brown, K.C., Registrar of the Supreme Court, to be and Puisne Judge.—The Governor, accompanied by Hon. A. G. Nash, paid a visit to the Litz factory and reservoir on June 10. His car breaking down on the way, His Excellency continued his journey on a passing lorry.—In his annual report for 1920-1, which is just published, Hon. C. G. H. Davis, the Auditor-General, states as his opinion that the Colony should have a much larger cash surplus than at present, unless it is to be content with a system of borrowing on short loan. He also points out that there are strong objections to a Colony's making it a practice to utilise any deposits which may be in the hands of the Treasurer for safe keeping.

—Mr. Halstead, the microbiologist, speaking at a meeting of banana planters of St. Catherine, which has hitherto been immune from Panama Disease, said that up to June of last year the greatest number of cases of this disease treated in Jamaica had been 400, but between June and February this year, 1,300 had been treated.—There was a large attendance at the special service at the Duke Street Synagogue in Kingston, on June 18th, in aid of the suffering Jews in Eastern Europe, and a substantial sum was collected for this cause.—It is



The Sailors and Soldiers Club, Trinidad.

This new institution stands on the site of the St. Ann's Boys Government School, which was acquired on a lease of 20 years, at the rental of 1/- per year.

revenue and assets of the Island. Certain powers of control over the bank are conferred on the Governor in Executive Committee by Act No. 21 of 1922.

British Guiana Irrigation Schemes.

The Government's drainage policy was discussed at a meeting of the Combined Court on June 9th, Mr. Webber pressing for the appointment of a Committee of the Court to deal with any proposals for undertaking drainage and irrigation. The embargo on the importation of cattle into the Colony has been removed for six months, the duty on foreign cattle remaining at \$6 per head. On June 10th the Combined Court agreed to accept the offer of the Imperial Government to hand over for the Colony's use the Naval Wireless Station free of charge.—The ss. *Intaba*, which sailed on June 7th, carried 13,614 diamonds, weighing 2,545 carats and valued at \$61,583.

British Honduras Wireless Service

Since the beginning of July, radiograms between the Colony and the United Kingdom have been despatched and received via New Orleans at a cost of 67 cents per word, instead of via Jamaica.—Mr. E. C. Buck, late Director of Public Works in British Guiana, and now representing the British Engineering Manufacturers' Alliance, has been visiting the Colony, and his advice as to installing a pipe-borne water system has been sought by the Belize Town Board. The marriage took place on June 14th of Mr. H. McDonald, Assistant Superintendent of Police, and Miss Leah Hensner.

Hotel Accommodation in Grenada.

The recently opened Cockburn Hotel not paying its way, has been closed, and the Island's requirements



Sir Samuel Wilson Opens a Club.

The photograph showing Sir Samuel Wilson opening the new Sailors and Soldiers Club in Port of Spain on June 14th, like the other on this page, was taken by Mr. Reginald L. Power.

announced that the Government have decided to separate the offices of Registrar of Titles, Registrar-General, and Deputy Keeper of Records. These offices, which were combined in the governorship of Sir Sydney Olivier, were held by Mr. David Balfour until his death recently.—A petition has been sent to the King by the Legislative Council pointing out that

the absence of eight heads of departments from their offices, owing to the necessity for their presence in Council must be detrimental to the best interests of the Colony, and suggesting that private gentlemen should be nominated to seats on the Government side of the House.—The Colonial Secretary, the Attorney-General, Mr. Simpson, Mr. Nash, Mr. Ewen and Rev. A. A. Barclay, have been selected to proceed to England (if necessary) to lay before the Colonial Office the Council's views regarding the Constitution.—The Legislative Council has agreed to the advertising of Jamaica abroad, provided that the business community contributes as much to the cost of the publicity campaign as the Island's Treasury, the latter's share not to exceed £3,000 or to be less than £2,500. The Attorney-General (Hon. F. C. Wells Durrant) who had much to do with the successful advertising of the Bahamas, will be chairman of the Publicity Board.—Commander E. Codrington Hall, Custos of Portland, who died at his residence at Hector's River, on June 22nd, had served in the Royal Navy for 27 years before he settled in Jamaica, and was a veteran of the Crimea.—During the first half of the present year, Jamaica has shipped upwards of five million bunches of bananas, or nearly two million bunches more than during the same period in 1921.

St. Kitts' Revised Export Duties.

The revised schedule of export duties provided for by Ordinance No. 3 of 1922 fixes the rates for crystallised sugar at 4s. per ton when the f.o.b. price is under £15, 4s. 6d. when it is between £15 and £16, with an additional 9d. per ton for every increase of £1 per ton in price up to £26, and 2s. per ton for every increase over £26. For cotton lint, the export duty is fixed at 4d. per lb. when the f.o.b. price is under 1s. 6d. per lb., 4d. per lb. between 1s. 6d. and 2s., with an increase of 4d. per lb. for every increase in price of 6d. per lb. over 2s.

St. Vincent's Financial Condition.

The Government ginnyery is paying \$22 per ton for cotton seed, or \$10 per ton with 1,700 lbs. of manure returned to the vendor. The prices fixed for the season 1921-2 for ginning 1 lb. of lint, and disintegrating 1 ton of cotton seed are 3 cents and \$4 respectively.—The revenue of St. Vincent last year, as shown in the Colonial Treasurer's Report, was £53,806 against an expenditure of £56,220, thus reducing the Colony's surplus fund from £12,013 to £9,599. The value of the imports during 1921 amounted to £144,543, a decrease of £112,687 on the previous year's figures. The United Kingdom, Canada and the United States ran remarkably close in their share of this trade, the contributions being £39,058, £36,869 and £37,385 respectively. Exports realised £137,718, considerably less than half the value of those of the previous year. This striking decrease is attributed to the great reduction in the prices obtained for practically all items, and partly to a shortage in production due to the hurricane of September 8th. In the Southern Grenadines, where the effects of that disturbance were felt with especial severity, the work of repairing the damage had been practically completed at the end of last year.

Tobago's Cacao Crops.

Mr. Robert S. Reid, writing on July 7th, states that the weather is well suited for the young cacao crops. The old crop is practically closed. If conditions continue favourable, good autumn pickings may be ex-

pected.—Mr. Henry Meaden, the Assistant Warden, has been promoted to St. Patrick's, Trinidad. His services to Tobago were greatly appreciated, and a farewell dinner at the Union Club, Scarborough, was attended by 29 members from all over the island.—With great enthusiasm the Charlotteville Wesleyans are digging the foundations for a new church.

An Agricultural Bank for Trinidad.

The Agricultural Society, on the motion of Mr. A. B. Carr, passed a resolution on June 8th urging on the Government the absolute necessity of establishing a Government Agricultural Bank. Mr. Carr argued that the agriculturist who borrows from the merchant pays nominally eight per cent. for the accommodation, but that in reality the loan costs him about 18 per cent. per annum. The Chamber of Commerce also report in favour of such a bank being set up. At their meeting on June 28th, Mr. G. F. Huggins stated (according to the *Trinidad Guardian*) that the temporary relief which the Government had afforded to mortgagors by special legislation was more than counterbalanced by the jeopardy to securities which the enactment had brought about. At the same meeting, the question of the appointment of a West Indian Trade Commissioner in Canada was discussed. Suggestions by Mr. Stollmeyer for solving the financial difficulties of the proposal were referred to a Committee of the Chamber.—The death took place on June 29th of Mr. J. W. McCarthy, at the age of 75. Mr. McCarthy, who came to Trinidad from Nova Scotia in 1856, was connected with the La Brea pitch industry, and was also one of the founders of the Trinidad Fire Insurance Co., a Director of the Building and Loan Association, and an Alderman of Port of Spain.

Turks and Caicos Islands Labourers.

A correspondent writes with reference to labour and emigration, explaining that labourers have not to any extent left the Islands for employment in Santo Domingo. What happens is this: The Clyde and Columbus lines call at Grand Turk about five times a month, on their way from New York to Santo Domingo, to pick up stevedores. These men are employed on board the ships on their voyage round the coast of the Republic, and after ten or fifteen days, are brought back to Grand Turk, where they are paid off. Since the outbreak of the war, this business has steadily increased in volume, and in 1920 the Clyde S.S. Company disbursed over \$50,000 in wages, whilst the Columbus Line paid over \$22,000. How this has affected the general welfare is revealed in the record of the Savings Bank, which at the end of 1914 had slightly over £3,500 to the credit of depositors. On the 31st December, 1921, the figure stood at over £15,000, whilst the Customs duties have increased from £3,000 to over £4,500 in the same period. Lately the Bull Line cargo steamers have sought to gain a footing here on the same terms as the other ships, but the Dependency being already amply served as regards mails, permission was refused as far as Grand Turk was concerned. In the case of the Caicos, where owing to the drought all the provision crops had been destroyed and the inhabitants reduced to the verge of starvation, the payment of port dues was waived for three months, provided the steamers called at a port in those islands and took their stevedores there. About five steamers have already availed themselves of the concession, and their calling and disbursement of over \$2,000 has been a godsend to the suffering islanders.

THE WEST INDIAN PASSENGER LIST.

VISITORS FROM OVERSEAS.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Camito*, July 3rd:—

Mr. C. H. Browne	Capt. H. W. S.	Mr. S. Panayiotou
Mr. L. K. Davidson	McGrath	Miss S. Paterson
Mr. J. R. English	Mr. & Mrs. Julian	Mr. A. A. Rochester
Miss M. S. Lewis	Opatawe	Mr. G. S. T. Ten Quete
Mr. C. G. MacGregor	Mr. Juan Opatawe	

Sailings to Jamaica, from Liverpool, in s.s. *Greenbrier*, July 4th:—

Miss E. Browne	Mrs. G. M. Kearney	Miss E. V. Smith
Capt. G. H. Wall,	Mr. F. W. Kitchen	Mr. J. H. Wallace
D.S.M.	Miss M. R. Ross	Mr. R. J. Wishart
Mr. W. T. Jack		

Sailings to Jamaica, from Avonmouth, in s.s. *Motagua*, July 11th:—

Mr. T. E. Dorrington	Mr. J. E. Powell	Mr. & Mrs. A. D.
Mr. & Mrs. W. Hind	Miss D. E. A. Reade	Westbrook
Mr. A. R. Oxford		

Home arrivals from Jamaica, in s.s. *Bayana*, Avonmouth, July 9th.

Lieut. R. Bear	Mr. & Mrs. A. Hendriks	Mr. J. A. Nisbet
Mr. & Mrs. E. Bronstorph	Miss G. Hendriks	Mrs. R. S. Owen
Miss L. Bronstorph	Mr. S. M. Jacobson	Miss C. J. Piper
Miss E. Crawford	Mr. & Mrs. O. H. Keeling	Miss M. V. Preston
Mrs. G. M. Chambers	Miss H. Livingstone	Mrs. E. A. Rickman
Mr. S. J. Downham	Miss F. S. Leigh	Mr. & Mrs. O. H. Rose
Mr. & Mrs. G. Dewar	Mr. W. Latham	Saunders
Mrs. M. R. Francis	Mrs. K. Lucie-Smith	Rev. & Mrs. G. Stone
Mr. L. J. Gillies	Capt. J. D. Lucie-Smith	Lieut. T. Sweeney
Mr. & Mrs. W. A. Hewett	Mr. C. Hope Lewis	Miss E. Talbot
Mrs. I. S. Hendriks	Mrs. W. Macmillan	Mr. S. Wolfhols
		Mr. A. Young

Home arrivals from Jamaica, in s.s. *Mtami*, Liverpool, July 9th:—

Hon. H. H. Cousins	Mr. & Mrs. F. Moore	Mr. G. Rock
Mr. A. Farquharson	Miss Moore	Mr. A. T. Sheehan
Mrs. G. Kite	Mrs. A. Riley	Mrs. & Miss J. Ward

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Specialist*, July 7th:—

Mr. & Mrs. L. A. Bushe	Mr. Morrison	Mr. Hobart Phillips
Mr. Chisholm	Mr. & Mrs. Wilson	Mrs. F. Smith
Mr. Clarke	Nicholls	Mr. C. T. Watts
Mr. P. R. Hamer		

Royal Netherlands West-Indian Mail.

Home arrivals from West Indies, in s.s. *Van Kesselauw*, Plymouth, July 4th:—

Mr. Charles Daley	Mr. & Mrs. D. Lawrie	Miss A. Reside & fam.
Mrs. Helene de Braso	& fam.	Mr. & Mrs. R. J. H.
Mr. W. Dickson	Mr. D. Leacock	Rust
Mr. H. M. Donald	Mr. J. C. Lynch	Mrs. E. L. Sealy & Son
Mr. & Mrs. S. Flessenan	Mr. E. Mason	Mr. & Mrs. H. Smith
Mr. M. Furness	Dr. H. C. Masiah	Mr. C. C. Stanton
Mrs. B. Gordon	Mr. C. McNabb	Mr. & Mrs. T. Westcott
Mrs. A. Hodges	Mrs. J. Miller	Mr. H. Williamson
Mrs. A. G. Hombersey	The Misses Miller	Mr. & Mrs. C. Wright
Ms. St. C. Hunte	Mr. E. Oakes	Mr. & Mrs. Wm. Wright
Mr. W. Knapp	Mr. & Mrs. G. Nic and fam.	

Sailings to West Indies from Dover, in s.s. *Stuyvesant*, July 15th:—

Miss G. M. Appleby	Mr. R. C. Haekstoun	Mr. & Mrs. N. S. R.
Mrs. F. M. Bagot	Mr. A. A. Hill	Vinter
Mr. G. A. Bouilla	Mr. D. Hope-Ross	Mr. P. R. Worsley
Mr. F. J. Brown	Miss A. Jeffers	Mr. & Mrs. R. G.
Mr. E. C. Collymore	Miss B. Jeffers	Wright-Neath
The Rev. Father R. P. Devias	Mr. F. McCool	Miss D. A. Wright
The Rev. E. Dutton	Mrs. J. Rose	Neath
Capt. U. H. McU. Gooden-Chisholm	Mr. F. Squire	Mr. J. A. Young

Mr. L. G. Alston	Mr. A. Laurie
Hon. J. P. Auld, M.I.C.E.	Mr. Dudley Leacock
Mr. F. C. Archer	Mr. L. J. Lee
Mrs. S. Archer	Mr. C. Hope Levy
Mrs. A. Bagot	Mr. E. S. Longley
Dr. R. Wellesley Bailey	Mr. A. M. Linn
Major P. F. Becher	Hon. J. Chalmers Lynch
Capt. W. Bowring, M.B.E.	Mr. L. Lywood
Mr. A. C. Brazao	Mr. John Macdonald
Mr. A. J. Brooks	Mr. William Mackay
Mr. G. G. Brown	Hon. Harcourt Malcolm, O.B.E., K.C.
Mr. James Brown	
Mr. E. Bryson	Mr. E. S. Mason
Mr. K. Gordon Burr	Dr. H. Gray Nassiah
Miss E. Burton	Mr. D. Luckie Matthew
Mr. M. P. Canacho	M. G. C. May
Mr. J. W. Cathcart	Mr. Hugh McLelland
Hon. Cecil Clement, C.M.G.	Hon. W. Morrison
Lieut.-Col. J. H. Collins, V.D.	Mr. R. Nicol
His Honour C. P. Condon	H.E. Lt.-Col. Sir Charles O'Brien, K.C.M.G.
Dr. J. H. Cooke, B.A., M.B.	
Mr. R. P. Daggett	Mr. T. W. O'Neal
Mr. M. D'Andrade	Hon. J. H. Phillips
Mr. I. de Freitas	Mr. G. D. Pile
Dr. Q. B. de Freitas	Mr. V. A. Pires
Hon. H. de Mienville	Hon. J. Stanley Mac
Mr. G. P. Dewar	Hon. E. A. Robinson
Mr. F. J. Reans	Mr. J. A. Robotham, P.S.A.I.
Mr. T. P. Evelyn	Hon. W. J. Robson
Hon. H. Ferguson	Mr. G. T. Rock
Mr. W. G. Freeman, R.Sc.	Mr. D. Hope Ross
Dr. W. H. Fretz	Mr. L. A. Ryan
Mr. C. C. George	Mr. W. Sanderfoot
Mr. E. P. Gladwin	Mr. Ivan J. Scott
Mr. P. G. Glendinning	Mr. L. H. Schneider Scott
Mr. J. Goncalves	Mr. G. Elliot-Sealy
Mr. Gordon Graham	Mrs. H. H. Sealy
Mr. J. T. Greig	Dr. I. K. Sharples
Mr. P. Lechmere Guppy	Hon. A. P. Sherlock
Mr. A. H. Hamel-Smith	Mr. W. M. B. Shields
Mr. H. Hamel-Smith	Dr. E. M. Skoete
Mr. Alick G. Hamlyn	Mr. M. Howard Smith
Mr. V. Hanschell	Lieut. C. S. B. Swinley, R.N.
Mr. V. C. Hanschell	Rev. W. R. Symons
Sir J. R. Harrison, C.M.G.	Dr. H. A. Tempany
Mr. S. M. Houghton-Jones	Mr. A. C. Thomas
Mr. F. W. Hopkinson	Mr. L. A. Torrance
Mr. W. P. Humphrey	The Rt. Rev. Bishop of Trinidad
Mr. H. L. Humphrys	Hon. R. A. S. Warner, K.C.
Mr. J. M. Ironside	Mr. Hugh R. Wildy
Capt. Thomas H. Irving	Mr. F. Williams
His Hon. Mr. Justice E. C. Jackman	Hon. S. Wolfhols
Mr. S. M. Jacobson	Mr. W. Harold Wright
Sir E. H. Jarvis, C.M.G.	Mr. G. A. Yearwood
Capt. O. H. Keelint	Mr. H. Graham Yearwood
Mr. J. P. L. Leupport	
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.	
Mr. A. M. Reid, South Ceme, Cirencester, Glos.	

WEST INDIAN SECURITIES.

Div.		Latest price.
4	Antigua ... 4 % Redeemable 1912-44 ...	84.88
5 1/2	Barbados ... 5 1/2 % " " 1925-42 ...	74.75
4	British Guiana ... 4 % " " 1935 ...	87.88
3	British Guiana ... 3 % " " 1929-45 ...	61.85
5 1/2	British Guiana ... 5 1/2 % " " 1922 ...	102
4	Grenada ... 4 % " " 1917-42 ...	79.81
4	Jamaica ... 4 % " " 1934 ...	88.90xd.
3 1/2	Jamaica ... 3 1/2 % " " 1919-49 ...	77.78
3	Jamaica ... 3 % " " 1924-44 ...	67.60
4	St. Lucia ... 4 % " " 1919-44 ...	79.81xd
4	Trinidad ... 4 % " " 1917-42 ...	83.85
3	Trinidad ... 3 % " " 1922-44 ...	68.70
4 %	The Colonial Bank	4-6 1/2
8 %	Royal Mail Steam Packet Co. Ordinary	88.43
6 1/2 %	Angostura Bitters Part. Preference	
5	New Trinidad Lake Asphalt Co. 5% Debentures	103-108
7 1/2 %	Consolidated Rubber and Balata Estates Pref.	1/8
	St. Madeleine Sugar	5/9
	St. (Trinidad) Oilfields, Ltd.	40-1
	Apex (Trinidad) Oilfields, Ltd.	1/3
	Petroleum Options, Ltd., 10-	36-3
	Trinidad Central Oilfields	1/4
	Trinidad Dominion Oil, Ltd., 10-	2216
	Trinidad Leaseholds, Ltd., (21)	9-
	United British Oilfields of Trinidad, Ltd.	4-
	General Petroleum of Trinidad	10-
	Naparine Oilfields of Trinidad	
	Direct West India Cable Co.	
	W. I. and Panama Tel. Co., Ltd., Ordinary	1-1/2
	W. I. and Panama Tel. Co., Ltd., 6% Cum. Int. Pref.	1-1/2
	W. I. and Panama Tel. Co., Ltd., " 2nd	1-1/2
5%	W. I. and Panama Tel. Co., Ltd., 5% Debentures	75-80

PRODUCE MARKETS SUMMARY.

Telephone—
Central 0662.
Telegrams—
Carib. London.



15, SEETHING LANE,
LONDON, E.C. 3.
July 18th, 1922.

BANK RATE. 3 per cent, as from July 13th, after having remained at 3½ per cent. since June 15th. The rate is now back at pre-war level.

EXCHANGE. Value of the £ Sterling.

	July 4th		July 18th			July 4th		July 18th					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.				
In U.S.A. ..	18	2	18	3	In Spain ...	1	2	6	1	3	9		
.. France	2	1	11	2	2	9	.. Germany	90	0	0	102	10	3
.. Belgium	2	4	1	2	3	1	.. Austria	3500	0	0	3072	3	0
.. Italy	3	14	9	3	1	9	.. Holland	19	0	18	9		

The intrinsic value of the gold sovereign is £1 1s. 9d.

SUGAR. A smart rise took place in the New York quotations when the market reopened after the Independence Day holidays, the price of duty-paid Cubans rising to 5.05c., equal to 3.44c. c.i.f., or about 3.28c. f.o.b. The market subsequently weakened, but yesterday was firm with a value for Cubans of 3.30c. f.o.b. The future market quotations yesterday were:—September, 3.48c.; December, 3.57c.; March, 3.31c.

Prices in the home market yesterday were slightly higher than at the date of last Summary, values being:—London Granulated, 50/9; American Granulated, spot, 49/9; West Indian Crystallised, 42/6 to 45/8; White Mauritius, 47/6 to 49/8; White Brazil, 47/-, and White Trinidad, 48/3. Cuban 90 deg. were quoted at 17/6 c.i.f., Preferential 96 deg. 20/3 c.i.f. Values in the terminal market were:—96 deg.: August, 17/3; September, 16/10½. White: August, 22/4½; September, 22/3; October, 21/4½.

Facts about Sugar estimates the quantity of domestic sugar of the United States and Cuban supplies available for the seven months June-December as being, in terms of refined, 2,100,000 tons, or 300,000 tons a month. As the U.S. consumption for the first six months of the present year has been, according to Willett and Gray, 2,780,000 tons, there is every probability of full duty sugars being imported before the end of the year, especially as the U.S.A. beet crop is only estimated at 600,000 tons.

Himely has raised his estimate of the Cuban production from 3,580,000 tons to 3,800,000 tons.

The Board of Trade Returns for June give the imports of all kinds of sugar for the month as having been 309,646 tons. The month's imports of "refined" were 65,416 tons, including 1,142 tons from Holland, 1,210 tons from Czecho-Slovakia, 45,216 tons from the United States, and 17,602 tons from "other countries not in Europe." The imports of "unrefined" sugar were 144,230 tons, mainly from Cuba, which supplied 67,438 tons. Mauritius contributed 26,878 tons, and the British West Indies 23,605 tons.

For the six months of the present year the total imports have been 1,039,050 tons, made up of 261,062 tons of refined and 777,988 tons of unrefined. 40,829 tons of the refined came from Europe, and 179,150 tons from the United States. Cuba contributed 494,993 tons of the unrefined, Mauritius 91,321 tons, and the British West Indies (which includes British Guiana) 67,697 tons.

The sugar delivered for consumption during the month was 163,173 tons, of which 85,547 tons, or only 52.4 per cent., came from the home refiners. The consumption for the six months has been 784,903 tons, a satisfactory increase on the 658,168 tons of the first six months of last year. The monthly consumptions of the present year have been:—

	Tons.		Tons.
January ...	129,111	April ...	80,471
February ...	109,745	May ...	191,450
March ...	111,770	June ...	163,173

The stocks on hand on June 30th were 364,250 tons, consisting of 44,900 tons of refined in the refineries, 41,750

tons of foreign refined, and 218,200 tons of unrefined. These compare with 335,150 tons, 49,800 tons, 28,250 tons, and 247,100 tons respectively, the stocks on hand on May 31st.

RUM. The market is still quite lifeless, and any prospects of a revival in Continental demand have been shattered by the further fall in exchange.

The imports of rum for the month were 94,891 proof gallons, and the quantity liberated for consumption 61,196 gallons, bringing the total imports for the six months to 1,225,186 gallons, and the consumption to 709,712 gallons. These figures compared with 3,228,491 gallons imported, and 975,301 gallons consumed during the first six months of last year, and with 2,121,274 gallons imported and 1,580,856 gallons consumed during the first six months of 1920.

The exports for the month were 52,928 proof gallons, making 265,629 gallons for the six months, as against 94,800 gallons for the first six months of last year. The stocks on hand on June 30th were 11,168,000 proof gallons, as compared with 11,283,000 gallons on May 31st.

CACAO. Auctions were held immediately after last Summary had gone to press. They consisted chiefly of Grenada cacao, which was in slow demand and only partly sold at 56/- to 57/- for fine—a decline of at least 3/- on the previous sale prices given in last issue. Other kinds were entirely neglected. There have since been small sales at steady prices. Grenada fine is quoted at 57/-, and ordinary Plantation Trinidad at 67/-.

During the month 151,042 cwts. of cacao were imported, of which 30,791 came from the British West Indies. For the six months the imports have been 887,926 cwts., as against 905,627 cwts. for the first six months of last year. The quantity which went into consumption during the month was 76,845 cwts., bringing the total for the six months to 493,278 cwts., as compared with 454,009 cwts. for January-June last year. Exports were 12,121 cwts., making 211,448 cwts. for the six months.

The stocks on hand on June 30th were 859,000 cwts., as against 797,000 cwts. on May 31st last.

ARROWROOT. During the early part of the month there was somewhat greater activity, some 800 barrels being sold, ranging from highest to lowest grades. The market is now dull and inactive.

BALATA. West Indian sheet is firm but quiet. Value, spot 3/1 to 3/1½.

BAY OIL is neglected. The last nominal quotation was 9/- to 12/-, according to test.

COFFEE. The market is quiet and prices generally are lower. There has been no Blue Mountain offering since last Summary. Ordinary Jamaica is quoted at 65/- to 70/-.

COPRA. The tone is steady, with West Indian quoted at 226 c.i.f. Rotterdam or London.

COTTON. Quotations all round are dull, and Sea Island has been generally neglected. Nominal prices unchanged at medium 23d., fine 30d., and extra fine 38d.

LIME PRODUCTS. Lime Oil. Handpressed is neglected, with sellers willing to meet the market. There is only a retail business in Distilled. **Lime Juice.** Raw is steady. Small sales of old stock good quality are reported up to 2/6 per gallon, but demand has been checked by the bad weather. Only small supplies of Concentrated are available, but buyers are showing no interest.

LOGWOOD. A quiet market, with little business passing at unchanged value, £8 10s. per ton.

ORANGE OIL. There are sellers of Sweet at 10/- spot, but no sales reported. There is still no enquiry for Bitter.

SPICES. Some business in **Pimento** has been done on the spot at 2d. per lb., but the market is still very dull. **Mace** remains very firm, at 1/6 to 1/10 for fair red to good pale. The demand for Jamaica **Ginger** has become very slow. Parcels on the spot are held for full rates, but buyers show little interest.

The West India Committee Circular

Vol. XXXVII.

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The West India Committee Rooms.

Telephone:
CENTRAL 6642



15, SERYPHING LANE,
LONDON, E.C. 3.

Telegrams:
CARIB, LONDON

August 7th, 1922.

TO DEVELOP EMPIRE TRADE.

WEST INDIANS will watch with sympathy and interest the new movement in the direction of the development of trade within the Empire. This movement was originated by LORD LONG, who in a letter in *The Times* of July 7th recalled what had been done in 1917, when definite resolutions dealing with this subject were unanimously adopted by the Imperial Conference, and in the following year, when a Cabinet Committee was appointed to explore the whole question. A special Economic Committee was then appointed, with MR. HEWINS, M.P., then Under-Secretary of State, as chairman, and a series of reports were prepared which formed the basis of resolutions of the Conference. LORD LONG then urged "most earnestly" the appointment of a Cabinet Committee to prepare the way for an Imperial Economic Conference to deal finally and effectively with the whole subject, which he regarded as of great Imperial importance. LORD LONG's letter was received with great satisfaction in Colonial circles, and it was announced on the following day that it would be communicated to the Dominion Governments. Here we may pertinently ask, Why not also to the Governments of the colonies not possessing responsible government? MR. L. S. AMERY, M.P., then took up the cudgels, and, staunchly supported by LORD LONG, emphasised in an article in the *Sunday Express* the fact that before the war our exports to the Dominions were two or three times as great as those to the whole of Central Europe. At a luncheon given in his honour by the British

Empire Producers' Organisation on July 11th, MR. AMERY commented on the fact that the people of this country had invested thousands of millions in every country in the world outside their own Empire, and were even now, after the exhaustion of the Great War, devoting far more attention to the discussion of the credits required to rehabilitate Central Europe or prop up tottering Bolshevism in Russia than to plans for Empire development. He rightly said that the immense trade opportunities offered by our own Empire must occupy the first place in our thoughts. The main theme of discussion in England at this moment was not the development of Imperial trade, but the haunting fear lest, if we imposed a duty of 33 1-3 per cent. on fabric gloves, the Germans would be so annoyed that they would stop purchasing their yarn from Lancashire, and insist upon purchasing dearer and worse yarn from countries which taxed these same gloves 50 and 60 per cent. Following these expressions of views, it was announced on July 22nd that a new association had been formed under the title of the Empire Development Union for the promotion of the trade relations of the United Kingdom within the Empire on the lines of resolutions unanimously adopted at successive Imperial Conferences. LORD LONG is President, and SIR VINCENT CAILLARD Vice-President, while the Chairman is MR. W. A. S. HEWINS, formerly Under-Secretary of State for the Colonies. In a manifesto, these gentlemen recall that the governing principle of the resolutions of the Imperial Conferences of 1917-18 was that in order to re-establish the industries of the world, the British Empire must approach the problem with a united mind. The decisions of the Conference, they add, embrace legislative and administrative measures dealing with the development of Empire resources by joint action, the organisation of supplies of raw materials, the safeguarding of essential industries, protection against dumping, the development of Customs and administrative preferences within the Empire. We welcome the formation of this new Association, whose address is 26, Abingdon Street, London, S.W., and hope that its work will lead to the development of trade between the Mother Country and the rest of the Empire.

AGRICULTURAL CREDIT BANKS.

NOT long ago the Trinidad Chamber of Commerce appointed a Committee to enquire into and report on the question of the establishment of a permanent Government Agricultural Credit Bank for the purpose of maintaining and developing the agricultural industries of that colony. The Report of the Committee, which was presented at the Meeting of the Chamber on June

28th and unanimously adopted, recommends that such a bank should be established in place of the present system of Government advances to planters, to serve the following ends:—

- (a) Mobilizing agricultural credits to be used as security for the money being, and to be, employed, in the maintenance and development of agricultural industries.
- (b) Lowering and equalizing interest rates on first mortgage agricultural loans.
- (c) Providing long-term loans for agriculture with the privilege and advantage of repayment by instalments.
- (d) Providing short-term loans against growing crops at cheap rates of interest.
- (e) Making it easy for the thrifty to free their properties.
- (f) Providing safe investment within the colony for the profits earned in the colony, so that the colony's funds should be used for the development and enrichment of the colony.
- (g) Putting to practical use and profit the local Department of Agriculture.

The industrial value of such institutions has been so well proved in progressive agricultural countries, notably Canada, Germany, Holland, and the United States, that there can be no question of the advantage which Trinidad would derive from the establishment of a Government Agricultural Credit Bank on the lines laid down by the Committee of the Chamber of Commerce.

THE ENDOWMENT FUND.

THIRTY-EIGHTH LIST OF CONTRIBUTIONS.

The West India Committee Endowment Fund has now reached the total of £23,779 12s. 8d., the following additional contributions having been received:—

Amount previously acknowledged	£23,700	15	4
R. P. Simmonds, Esq.	52	10	0
H. M. Brandon, Esq.	2	2	0
The Hon. James M. Boodie	2	2	0
J. M. Hattrick, Esq.	2	2	0
Thomas Jobson, Esq.	2	2	0
J. H. Allwood, Esq.	1	1	0
Andrews, Gillespie & Co.	1	1	0
J. Connell, Esq.	1	1	0
Major H. C. Corlette, O.B.E., F.R.I.B.A.	1	1	0
Lt.-Col. A. R. Davis	1	1	0
G. D. Henriques, Esq.	1	1	0
G. V. Hepburn, Esq.	1	1	0
John B. Laing, Esq.	1	1	0
Major Claud J. Low, D.S.O., T.D.	1	1	0
J. Powter, Esq.	1	1	0
Brig.-Gen. C. E. Rice, C.B.E., D.S.O.	1	1	0
D. Morris Skinner, Esq.	1	1	0
A. Clayton Smith, Esq., M.C.	1	1	0
Dr. R. A. Hoyte	1	9	10
"Anon"	15	0	0
H. M. Berkeley, Esq.	10	6	0
F. W. Ross, Esq.	10	6	0
Rev. P. K. P. Bolton	10	0	0
Hugh F. Pilgrim, Esq.	10	0	0
Robert Catton, Esq.	8	0	0
"Anon"	8	6	0

SOME NOTES OF INTEREST.

"Foot shut he mattee koker and lef he own open."

* * *
INCOME Tax in Kenya was abolished on May 31st.
* * *

THE Canadian Bank of Commerce has opened a branch at San Fernando, Trinidad.

* * *
MR. GILFRED N. KNIGHT has been elected a member of the Committee of the West Indian Club.
* * *

MR. PETER ABEL leaves London to-morrow for South Africa, where he will spend the next few months.

* * *
THE increasing consumption of sugar in the world is one of the best signs of the revival of the world's industries.

* * *
THE flour consumption of the United Kingdom is 41,000,000 sacks per annum, or almost a sack per head of the population.

* * *
MR. FREDERICK N. MARTINEZ leaves London this month on an extended tour to South and Central America and the West Indies.

* * *
MAURITIUS, by increasing the general Customs duties on imported foreign goods by 12½ per cent., is thus giving a preference to British goods.

* * *
BRAZIL manufactures about 350,000 tons of sugar. In 1920 the exports were 109,141 tons, and in the first nine months of 1921, 107,753 tons.

* * *
FOR the first four months of the present year, the United States exported 855,126 tons of refined sugar to 58 different countries, including Iceland.

* * *
THE potash output of Germany in 1920 was equivalent to 928,843 tons of K₂O, as against 1,110,869 tons in 1919. France produced 199,175 tons.

* * *
MR. JOHN ALLSOP, until recently the Royal Mail Steam Packet Company's general representative for Canada, has been appointed an assistant manager of the company.

* * *
MR. WILLIAM MARTINEAU, son of that valued friend of the British sugar producers, the late Mr. George Martineau, has been elected Master of the Grocers' Company.

* * *
SIR CHARLES AND LADY O'BRIEN AND THE HON. WILLIAM AND MRS. MORRISON had the honour of attending their Majesties' garden party at Buckingham Palace, on July 21st.

* * *
"TELA, in Honduras, produces the best bananas grown in the world, and there is every indication of larger supplies from there in the future."—Mr. Hal Stockley in the *Banana Budget*.

It, says *Facts about Sugar*, the expected ice-cream consumption of 300,000,000 gallons in the United States comes off this year, there will be a consumption of from 120,000 to 140,000 tons of sugar from this industry alone.

* * *

In the nine months ending March 31st, 1922, Australia imported rum to the value of £5,029, as against £15,142 for the corresponding period ending March 31st, 1921. The values of the imports of sugar for these periods were respectively £159,900 and £4,971,385.

* * *

A SUGAR factory has been erected in the Vaico River district in Cochin China, says the *Journal des Fabricants de Sucre*, with a capacity of 300 tons of cane in 24 hours. It has a distillery which will turn out annually 1,500 to 2,000 tons of alcohol. The quality of the canes is said to be good, the sugar content being from 16 to 17 per cent.

* * *

THE Board of Directors of the Southern Queensland Fruit Growers' Society have asked the Legislature to put into operation a scheme as regards the Queensland banana industry, of which the principal items are (1) compulsory grading according to standards already agreed upon, and (2) absolute control of all bananas produced in Queensland for sale.

* * *

FOR many years the Turks and Caicos Islands have been without a newspaper, the inhabitants depending upon the Government Gazette for news items. Now a weekly sheet, entitled the *Chronicle*, is being published at Grand Turk. To the new venture, which has the support of the Commissioner and the local merchants, THE WEST INDIA COMMITTEE CIRCULAR wishes the best success.

* * *

By Proclamation dated 28th June, the following, amongst other articles may be imported into Germany without licence as from the 10th of last month:— Cocoa husks, whether roasted or not; cocoa butter; cocoa, roasted, ground, crushed, etc., also in tablets or cakes, and cocoa paste; ginger; mace; nutmegs; allspice; pepper; cinnamon; vanilla; hard wood; and sea turtle, living or dead.

* * *

It is hardly possible to translate the influence of prohibition into cold and infallible statistics, but, says *Facts about Sugar*, it is perfectly logical and reasonable to conclude that it has had and is having a decided influence in bringing about a greatly increased consumption of sugar in the United States. Combined with other factors, it is likely to bring the yearly consumption of the United States up to the impressive total of 5,000,000 tons within the very near future.

* * *

DURING his recent travels in Angola, Mr. M. F. Dawe, the well-known tropical agriculturist, discovered a pasture grass which he found to be particularly obnoxious to tsetse flies and ticks. It is an oily grass with an objectionable odour, so objectionable, indeed, that even jiggers cannot stand it. From a botanical point of view, it is not a new

grass, being found not only in various parts of East and West Africa, but also in South America, particularly in the Brazils.

* * *

THE Crown Agents for the Colonies have been requested by the High Commissioner of Palestine to undertake the sale of Jordan water in glass vials made in Hebron, earth from Mount Moriah in silk sacks from Damascus handlooms, Roman pottery from the excavations at Ascalon, pressed flowers from the hills of Judea, and shells from the Lake of Galilee. A practical interest might be imparted to the venture by including relics from the sugar factories found there by the Crusaders.

* * *

IN the course of an article in the *Louisiana Planter*, Mr. S. E. Ruegg says as regards Cuba: "She used her enormous profits to increase her output, for the sole purpose of dominating the American market, destroying by the might of her power of her enormous production at a much lower cost than the American producer could produce." Substitute Germany for Cuba, and the British colonial sugar producer for the American, and the above might have been written twenty years ago.

* * *

THE Krajewski crusher, which is an almost universal accessory to modern mill plants, had its forerunner in Faure's defibreur. This, like the Krajewski, consisted of two deeply-grooved rolls, between which the canes passed on their way to the mill proper. It was experimented with at the Usine St. Madeleine, in Trinidad, in 1862, but as the working of the mill to which it was attached showed no superiority over that of the duplicate mill working without it, its use was abandoned.

* * *

THE results of fifteen years of experiment in connection with the preparation of Indian woods for use as sleepers have been published by the Indian Department of Forestry. Many methods of preservation were tried, and the best results were obtained by "powellising" the wood. The sleepers so treated had a life of nine years in comparatively dry ground, but in wet districts, however, their life was short. A description of the "powellising" process was given in THE WEST INDIA COMMITTEE CIRCULAR of April 27th last.

* * *

THE total revenue of Trinidad amounted to £1,867,944 in 1921, as compared with £1,917,749 in the preceding year and £1,842,884 in 1919. The colony's "Yellow Book," from which these figures are extracted, shows that nearly a third of the above totals is contributed by Customs duties. The income tax yielded £64,691 in 1919, £107,950 in 1920, and no less than £213,960 last year. The island's asphalt paid last year £29,655 in the shape of export duties. The total expenditure exceeded the revenue in 1921 by £206,982.

* * *

Few people, says Mr. Taussig, in the *Louisiana Planter*, realise how dependent they are on molasses in their daily lives, for molasses enters, indirectly, into the manufacture of many commodities. Few

motorists who drive over a certain road near Newton Center, Mass., know that the road was built from molasses, but this is the case. Molasses, when mixed with lime, has the property of forming a compound that is as hard as cement. Very good roads have been built, using molasses as a base. Whenever you have occasion to use a piece of machinery that is made from cast iron or cast bronze, you may be reasonably sure that molasses has entered into its manufacture, for foundries have discovered that molasses is the best medium to utilise in the moulding sand to make it plastic.

* * *

A CORRESPONDENT in Nicko's (the Australian fruit journal) says: "I have lately had the opportunity of reading Fawcett's admirable book, 'The Banana' (published under the auspices of The West India Committee), and can recommend it to any banana grower. Of course, it deals with West Indian conditions and the cultivation of the Gros Michel variety, but still there is a lot of advice which we can take to heart." The point which appears to have struck the writer of the letter most in reading the book was Mr. Fawcett's statement that to secure payable results Jamaica planters must so prune and manage their plants as to make them bear during only four months of the year, and that when a young planter has acquired the art, he can turn his attention to the production of large bunches, and he strongly urges all local Associations and the Department of Agriculture to take the matter up with the view of the system being adopted in Australia.

* * *

THE 185th Half-yearly Report of the Colonial Sugar Refining Co., Ltd., of Australia for the half-year ending 31st March, 1922, has been issued. The profits made during that period from the work of the mills and refineries, after providing for depreciation and other charges, amount to £171,949 8s. 10d.; to this must be added the earnings from other investments subject to Federal Income Tax, £43,730 19s. 1d.; total, £215,680 7s. 11d. From this sum the Board propose to place to Reserve Fund £50,000; and, from the first amount, to pay a dividend of 15s. per share, £121,875; and, from the second amount, to pay a dividend of 5s. per share, £40,625; total, £212,500; leaving £3,180 7s. 11d.; to this sum must be added the earnings from investments not subject to Federal Income Tax, £30,300 5s. 6d.; leaving a balance of £33,480 13s. 5d.; to which sum has to be added the balance at profit and loss account on the 30th September, 1921, £319,635 14s. 11d.; leaving to the credit of profit and loss account, £358,125 8s. 4d. The Chairman, Mr. Kadir, stated that the agreement with the Commonwealth Government expired in June, but that as the Government control was to continue, a fresh agreement would be made.

FLOATING ISLAND—a delicious West Indian dish. Beat up the whites of five eggs for half an hour with four tablespoonfuls of guava jelly. Make a custard of four yolks of the eggs and one pint of milk (not boiled too thick). Put this in a dish and allow the beaten jelly to float on the top.

THE COMING TOURIST SEASON.

As usual, there will be ample opportunity for visiting the British West Indies from New York by special tourist steamer during the coming winter season. The R.M.S.P. Company, the C.P.R., and the White Star Line are all arranging cruises, and the itinerary and time-tables given below will, no doubt, enable those concerned to make adequate preparations for the reception and entertainment of their visitors. Only British ports of call are mentioned.

R.M.S.P. Orca.

Destination.	Leave New York.		Stay Hours.
	January 24	February 24	
	Arrive	Arrive	
	Jan.	Feb.	
Nassau	Sat. 27	Tues. 27	24
	Feb.	Mar.	
Kingston	Fri. 2	Mon. 5	35
Trinidad	Sat. 10	Tues. 13	24
Barbados	Mon. 12	Thurs. 15	12
Bermuda	Sun. 18	Wed. 21	25
New York	Wed. 31	Sat. 24	—

C.P.R. s.s. Empress of Britain.

Destination.	Leave New York.		Stay Hours.
	January 21	February 20	
	Arrive	Arrive	
	Jan.	Feb.	
Port Antonio	Sat. 27	Tues. 27	5
Kingston	Sat. 27	Tues. 27	24
	Feb.	Mar.	
Port of Spain	Mon. 5	Thurs. 8	25
La Brea Point	Tues. 6	Fri. 9	4
Barbados	Wed. 7	Sat. 10	13
Nassau	—	—	11
Bermuda	—	Fri. 16	26
New York	Fri. 16	Mon. 19	—

White Star s.s. Megantic.

Destination.	Leave New York.			Stay Hours.
	January 15.	February 17.	March 22.	
	Arrive	Arrive	Arrive.	
	Feb.	Feb.		
Kingston	—	—	Sat. 31.	33
(Port Antonio)	Wed. 24	Mon. 26	Apr. 8	24
Port of Spain	Thurs. 1	Tues. 6	Sun. 8	12
Barbados	Sat. 3	Thurs. 8	Tues. 10	9
Nassau	Fri. 9	—	—	26
Bermuda	—	Wed. 14	Mon. 16	—
New York	Mon. 12	Sat. 17	Thurs. 19	—

From England visitors will now be able to reach the West Indies by the joint service of Messrs. T. & J. Harrison and Messrs. Elders & Fyffes, Ltd., whose sailing dates are as under:—

Ingoma	Sailing	Sept. 1	London
Intaba	"	Oct. 7	London
Camito	"	Nov. 4	Avonmouth
Ingoma	"	Nov. 17	London
Coronado	"	Dec. 2	Avonmouth
Intaba	"	Dec. 29	London

These steamers should have ample accommodation for tourists besides the regular seasonal passengers returning to their homes. The West India Committee is always glad to give advice and information to intending visitors to the West Indies, and it has for distribution pamphlets of the Bermuda and Bahamas' Development Boards.

AMONGST the visitors to The West India Committee Rooms recently have been the following:—Mr. L. G. Alston, Mr. Robert Arthur, Mr. H. A. Arthur, Mr. N. J. Bascom, Mr. L. Lambert Bell, Mr. R. Bryson, His Hon. Major J. A. Burdon, C.M.G., Mr. G. P. Dewar, Mr. William Gamble, Mr. P. Lechmere Guppy, Mr. A. M. Low, Mr. E. S. Mason, Sir Robert Haden, Major Randolph Rust, V.D., Mr. W. Sanderson, Dr. E. M. Skeete, Mr. M. Howard Smith, Mr. R. P. Simmonds, and Mr. W. Harold Wright.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

THE WEST INDIAN AGRICULTURAL COLLEGE.

Concurrently with the usual administrative and technical correspondence with the northern islands, the Head Office of the Imperial Department of Agriculture has for several months been actively engaged with the various details of the coming move to Trinidad. At the time of writing, the reconstruction work of the St. Augustine buildings which are to be the provisional premises of the Agricultural College and new office of the Department is proceeding vigorously and there is every prospect of College work being started in October next. A few weeks ago, Sir Francis Watts paid a visit to Trinidad and returned to Barbados well satisfied as to the way matters were progressing. During his visit he addressed the Agricultural Society of the Colony, and in the course of his remarks paid tribute to Trinidad's interest and encouraging criticisms in respect of the new institution. It is evident that Trinidad appreciates the great asset the College will be. The opinion has been expressed in a Trinidad paper that the standard of the College Entrance Examination is too high, corresponding, as it does, to that of the Cambridge Senior Local Examination; but a moment's consideration will make it evident that this view, while understandable, is based upon misapprehensions. Although an Agricultural College is one for vocational or professional training, its primary aim—as of any College of University standing—is, first and foremost, to turn out educated men. To accomplish this, it must insist upon a good standard of elementary education. Moreover, this standard is a kind of necessary guarantee that the students are capable of benefiting by the instruction given, that they are actually students capable of studying. For the best work a student does is that which he does himself rather than what he is asked to do by others. In putting forward these views it is not the intention to give the impression that the work of the College will be of a theoretical character. Full provision is being made for the work to be of a character essentially practical with due regard to all matters appertaining to the production of tropical crops and animals.

At the present time a question which will be uppermost in the minds of those who are thinking of taking advantage of the training which is about to be offered is that of expense. As stated in the Provisional Announcement, recently issued, the fee for tuition in the Diploma Course will be £50 per annum. A limited number of students from Colonies and industries contributing towards the maintenance of the College will be admitted on the nomination of the contributing Governments and/or industries without the payment of tuition fees. Other students from contributing Colonies will be admitted on payment of tuition fees of £25

per annum. Minor laboratory charges, text books, etc., will be extra. Exactly what it will cost a student to live in Trinidad is not so easily stated; enquiries are being made by the College concerning suitable accommodation for students, and in a general way one may say, perhaps, that the cost of living will be found to be in the neighbourhood of £10 a month.

It may be mentioned that copies of the first year's prospectus of the College can now be obtained from the Secretary, at the registered offices, 15, Seething Lane, London, E.C., or from the Registrar of The West Indian Agricultural College, St. Augustine, Trinidad, B.W.I.

THE PIG-RAISING BUSINESS.

In 1915, Sir Francis Watts contributed a paper to the *West Indian Bulletin* on the economic possibilities of developing pig-raising in the West Indies along organised lines. In the years following, the prices of the produce of established industries like sugar, became greatly increased, and no very definite steps were taken in regard to the new suggestion for a time. But latterly, since prices have dropped and a development of all resources together with the diversification of agriculture are being found to be imperative, the pig-raising suggestion has again come to the fore. In this connection, a recent pamphlet issued by the Imperial Department on this promising line of development by Mr. W. R. Dunlop (who will be a member of the teaching staff) at the Agricultural College pending his transfer to the Colonial Service) should prove stimulating and useful to all concerned. Incidentally this pamphlet shows the many considerations that have to be taken into account when it is endeavoured to develop a new industry, how it is necessary to institute research and enquiry and, above all, to look at things from the points of view of different people. This pig-raising business, the aim of which is eventually to establish one or more pork packing plants in the West Indies (recognised as possible recently by a Chicago pork packer passing through Barbados) is being taken up in several islands. In St. Vincent, the Honourable C. P. Simmons, Mr. Punnett of Calder Estate and Mr. MacDonald of Wallibou have ordered pure bred stock from Trinidad or Barbados recently, and Mr. Simmons has reserved special lands for pig-raising. From Montserrat, Mr. W. Robson writes to say that many persons are seriously thinking of taking up the project. Again, from Nevis, Mr. W. I. Howell, the Agricultural Instructor, writes: "I can see a pig-raising industry for Nevis is coming." Mr. Maloney, a planter of that island, has already developed a herd of over 200 pigs, and is making a success of the enterprise. Even in Barbados a considerable amount of interest is being taken in this new suggestion and one estate at least is anxious to make experiments as regards different breeds and methods of feeding.

In regard to such a matter as the foregoing the West Indian Agricultural College should be in a position to render useful service by conducting feeding experiments along scientific lines. It

might be mentioned here that the care of live stock generally has been much neglected in the West Indies and it will be a great misfortune if animal husbandry does not in due course become a prominent feature of the work of the College.

THE CHAULMOOGRA TREE IN THE WEST INDIES.

Although Chaulmoogra oil has been used for hundreds of years by the natives of India in the treatment of leprosy, it is only comparatively recently that, chiefly as a result of successful scientific investigations in Hawaii and the United States, a general public interest has been aroused in it.

Popular attention was first called to the value of Chaulmoogra oil in the West Indies in the public telegrams of December 11, 1919, and this led to enquiries being made of the Imperial Department of Agriculture as to whether the tree occurred in the West Indies. The tree not having been introduced in the West Indies, a request was sent to the Royal Gardens, Kew, for a supply of trees from India, or rather Burma and Assam, of which countries the tree is a native. In due course three supplies of seed were received and distributed in 1920 and 1921 to the Agricultural Departments of Trinidad, Dominica, St. Vincent, Antigua, and St. Lucia. Accompanying the seed was a letter stating that they might be found to have lost their viability even though they had been collected with care and despatch and packed in damp charcoal. This was found to be the case. Only in St. Vincent and Dominica have plants been raised.

The publicity which THE WEST INDIA COMMITTEE CIRCULAR gave to the results obtained with the oil against leprosy, in its issue of February, 1922, makes it seem desirable that an attempt should be made to establish a chaulmoogra plantation in the West Indies. Should it be considered desirable to attempt further introduction of chaulmoogra trees, however, it will be well to consider the recommendations and conclusions arrived at by Dr. J. S. Rock, Agricultural Explorer, United States Department of Agriculture, in Bulletin No. 1057 (Bureau of Plant Industry) dated April, 1922, dealing exhaustively with the chaulmoogra tree and some related species. This Bulletin with a section on the chemistry of the oil, is the result of a recent survey in Siam, Burma, Assam and Bengal. From Dr. Rock's remarks it would seem that there is some considerable difficulty in ensuring the exact identity of the seed, for there are several closely similar types of seed, all of which grow in a wild and scattered fashion throughout the jungle; and although *Taraktogenos Kursii* is the principal species, there are other similar ones, some of which may present more remarkable medicinal properties. Dr. Rock's Bulletin is one that all Agricultural officers in the West Indies should consult.

BRIGHTON'S NEW VILLAGE.

With the consideration for its labourers which has always characterised it, the New Trinidad Lake Asphalt Company has recently established a model village for them at La Brea, or Brighton, as the place is now more generally called.

From the illustrations on this and the opposite page, for which the CIRCULAR is indebted to Mr. H. F. Previt , it will be noted that the village consists of cottages and barracks of a uniform type, and when it is said that all are equipped with water service, electric light, and a sewerage system, it will be agreed that the new village presents features of novelty where the housing of labourers in the tropics is concerned.

In order to further the health of the locality, the forest which used almost to encroach upon the lake



The New Village at Brighton, Trinidad.

This new village erected by the Trinidad Lake Asphalt Company for its labourers presents many novel features. It is equipped with water supply, electric light, and a sewerage system.

has been cut down and kept down for some years, and the village has been built on high ground on the eastern half of the north side of the vast deposit of pitch, the surface of which—with oil derricks beyond—can be seen in one of the illustrations. The District Medical Officer—at present Dr. Eric de Verteuil—by arrangement between the local Government and the Company, now acts as Sanitary Officer to the village.

We feel sure, says the *Australian Sugar Journal*, that the non-technical reader will find "The Manufacture of Cane Sugar" a simple, useful, and readable account of the trend of modern cane sugar factory plant and practice. The technical reader, too, will glean much useful general information. "We think this book, apart from other merits, will certainly serve its avowed purpose in extending knowledge of the sugar industry to a wider circle than could be reached by the purely technical works now in existence." "The Manufacture of Cane Sugar," by Jones and Seard, is obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C.3. Price 25/-; post free 26/-.

A few subscriptions to the West India Committee are still outstanding. Punctual payment helps.

HOME-GROWN BEET SUGAR.

By VICTOR C. MEYER.

(Continued from page 308.)

We now come to the establishment of a beet factory at Kelham, near Newark-on-Trent, in which the British Government has taken a large financial holding (about £375,000). This hade lair to be the greatest failure of all. The circumstances under which Home-Grown Sugar, Limited, was inaugurated were most adverse, more particularly since the erection of premises and machinery, the formation of roads and rail connections, and all preliminary contracts were made at the very height of their respective markets. The installation of the factory took place when financial fever, fanned by the fervour of war, ran riot with common sense. So that when a normal economic level is established, the outlook will not be favourable. Granted a very large amount of preference, the growing of beet might temporarily benefit a few agriculturists, but the actual results cannot have the slightest effect on the world's sugar markets. On account of the extraordinary cost of labour and material, the original capital had to be augmented to the extent of nearly 50 per cent., and is now at a figure far out of proportion to its production.

The contract price fixed with the farmers for their roots, as in the case of Cantley's last effort,

America, after many years of beet growing, can only get nine tons of roots to the acre, or about one ton of sugar, and the industry can only be carried on with exceptional preferential treatment. After a century's experience on the Continent, 1½ to 1¾ tons of sugar to the acre, under the most favourable conditions, is the rule, whereas the



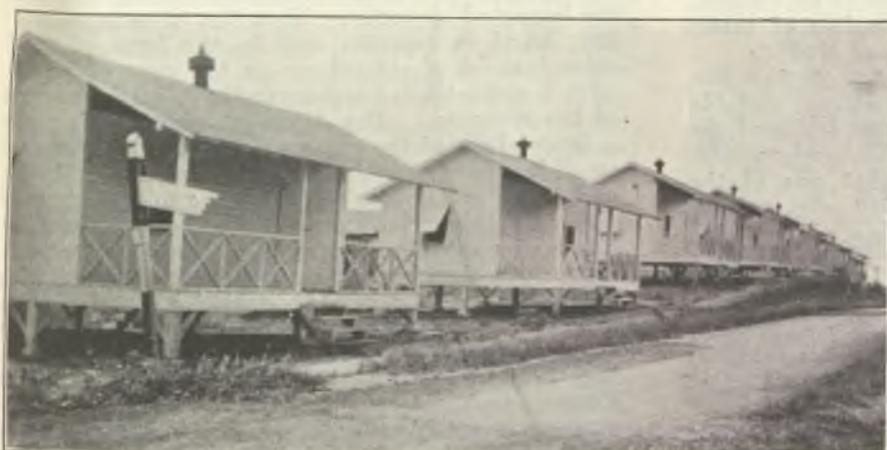
A Family Cottage at Brighton.

While the bachelors are accommodated in barracks, married couples are housed in cottages as well. These cottages are perfectly ventilated, and drained.

average world's figure is 2½ tons per acre. With such experience to work upon, the assertions made by those interested as to the general results at Kelham, both in weight and sugar content, might be considered as fantastic. With sugar at its present price, home production seems a most hopeless and expensive proposition. Now, although the amounts of money invested—

and lost—in home-grown beet would indicate industries of some magnitude, the works in question are of small capacity, both in output and volume of labour involved. The total capacity of the two concerns does not amount to 1 per cent. of the normal United Kingdom consumption, and the number of men engaged is only a few hundreds. To employ to the utmost the manufacturing powers of the two existing home factories would absorb about 15,000 acres, which might be applied to better productive purposes, as the amount of exemption granted under the recent fiscal concession represents, under such circumstances, about £350,000 annually.

The dream of a United Kingdom independent of outside sources for her sugar supply connotes the application of about 1,250,000 acres of beets, and 5,000,000 with rotation, to beet growing. As one of the main arguments of the home growers is the agronomical advantage of the rotation of crops,



A Street in the New Brighton Village, Trinidad.

In this new street, formerly La Brea Road, stand a row of comfortable family cottages, whose inmates will receive the care and attention of the District Medical Officer.

was about four times the normal figure, so that any hope of a profitable result, even under reasonable preference, was futile. Well might it be stated at a meeting of the company that the farmers were satisfied with the success of their part in the venture, and that *the loss was on the manufacturing side!*

that would mean a further area of land made suitable for sugar culture.

When we consider that in 1914 home growing of wheat absorbed 1,995,000 acres; that of barley 1,871,000; and potatoes 1,200,000, it will be readily seen that the available land in the United Kingdom might be employed for purposes of more alimentary importance than sugar, so long as we have Colonies equipped by Nature for the facile cultivation of that very wholesome commodity, Colonies, moreover, which are placed at a distinct disadvantage by the enormous and unreasonable preference shown to the home grower of sugar.

In a general sense, there are many obstacles to a successful result in the growing and manufacture of indigenous sugar. Beet sugar, as a commercial undertaking, must be grown on "the grand scale," and must have as one of its accessories cheap transport. The physical features of our land are, in a way, unfavourable to such necessary advantages. Other elements which militate against the feasibility of the home production of a commodity which can be marketed at such a cheap price as sugar are the incidence of taxation and the conditions of labour.

The high level of taxation and other heavy burdens on land practically put a severe handicap on an article which can be grown under more natural conditions, both as to soil and climate, in other parts of the world—many of our own Dependencies included. The high rates of railway carriage,—a combination of taxation and labour demands—make transport, for even a comparatively short distance between farm and factory, prohibitive. For the ratio of weight is about 10 tons of raw material to 1 of manufactured. In beet culture, the many field operations, such as hoeing, thinning, and weeding, demand much labour which is adequately performed on the Continent by women, boys and girls; for there they are free of many sentimental restrictions in restraint of trade.

In the earlier stages of the Cantley venture the difficulty, or impossibility, of getting suitable labour for much of the field work necessitated the importation of a small Colony of Hollanders, who were settled in the district, so that one of the avowed objects of the undertaking was largely defeated. Management, considerable labour, both skilled and unskilled, with the appliances they handled, all of Continental origin, did not indicate much of a home industry. In any scheme of introducing a new industry, the element of labour plays a most important part, and the manufacture of beet sugar, in that connection, presents certain disadvantages.

Undoubtedly, under present conditions, the work can be more economically and better done abroad than at home, so that we must be at a disadvantage, both in regard to tonnage on the farm and sugar content in the factory. When the period of maturity has arrived the roots must be harvested at once and their contents turned into sugar. The processes must be expeditiously and continuously carried through, any delay or interruption being fraught with danger, nay, even disaster.

(To be concluded.)

JAMAICA'S TASTE IN TOBACCO.

"Jackass Rope," the locally prepared rope-tobacco, is, according to the Canadian Trade Commissioner, Mr. F. L. Casserly, preferred by most Jamaicans to imported pipe tobacco, which is favoured by the upper and middle classes. A local pipe tobacco, sold as "Machados Mixture," is, however, gaining ground.

Cigars are extensively smoked by the upper and middle classes, and are all, save the wrappers, of local manufacture and mostly of high grade. Their pale blue smoke, firm grey ash, and delicate bouquet have carried them throughout the world, and earned for them a reputation scarcely inferior to that of Havana cigars. No imported cigars are consumed in Jamaica; and in view of the cheapness and excellent quality of the local product, together with the lower cost of labour in Jamaica, and a high tariff of 10s. per pound preferential and 13s. 4d. per pound general on imported cigars, as against a graduated excise tax ranging from 6d. per 100 on the cheapest to 2s. per 100 on the most expensive locally manufactured cigars, opportunities for import business do not exist.

"In the case of cigarettes the position is rather different. The Jamaican consumption of cigarettes is about 15,000,000 per month of which, roughly, 12,000,000 are imported. Four years ago the percentages were nearly reversed. The chief reason for this change is undoubtedly the superior quality, more attractive packing, better value and competitive prices of imported cigarettes. A secondary cause is the acquirement of a taste for English cigarettes by thousands of Jamaican soldiers when on active service abroad during the war.

"With the exception of one or two brands, the locally made cigarette is a distinctly inferior article. When smoked, it lasts only about half as long as the imported cigarette. Then the tobacco is bone-dry, harsh in flavour, and in the form of small chips instead of strands as in the case of its imported competitors; consequently it easily falls out of the wrapper. The Jamaican cigarette is really a by-product of the cigar. In cultivating tobacco small leaves in considerable quantity are produced, and these are not suitable for the manufacture of cigars. Hitherto the practice has been to use these leaves for making cigarettes. The local tobacco firms have therefore for some time past viewed with alarm the decrease in the consumption of Jamaican cigarettes, and in the early part of 1921, when the Preferential Tariff Bill was in course of preparation, they pointed out to members of the Legislative Council that unless the duties on imported cigarettes were raised, the Jamaican cigarette industry would be destroyed, and the prices of Jamaican cigars, both in Jamaica and elsewhere, would necessarily increase. These representations resulted in increased duties upon imported cigarettes; they were raised from a flat rate of 3s. 6d. per pound to 5s. 8d. preferential and 7s. general tariff.

"It might be mentioned however, that the sales of Jamaican cigarettes show but slight improvement since the preferential tariff became effective, as the prices of imported cigarettes, although at first advanced, have been reduced of late."

BANANE DES ANTILLES.**Its Reappearance in Alsace.**

The banana could hardly have chosen more benevolent climatic conditions than those which heralded its reappearance in Alsace, writes Mr. E. M. Prince, of the Continental Department of Messrs. Elders & Fyffes, in the *Banana Budget*. The thermometer had registered 90 degrees in the shade over the week-end, and when Monday arrived with even a higher temperature, it found the Strasbourgeois eager for anything that promised succulent and moderately cheap refreshment without great effort. Thus the burrow gentry of Strasbourg had a regular field-day on Monday morning, and a perpetual stream was returning to the entrepôt during the afternoon and following days for fresh supplies of ammunition.

Crowds collected quickly round these barrows, and Alsations, male and female, of every state and walk in life, could be seen strolling the streets, relishing the long-denied "Banane des Antilles," whose metamorphosis from the pre-war "Westindische Banane" no doubt made it all the more palatable.

Living in France is very expensive to-day, but the price of 50 centimes (2½d. now) for each banana is comparatively cheap, and soon made its effect felt on the price of their Canary cousins, whilst even cherries, which formerly claimed to hold their own against all comers, were forced to haul down their flag and surrender 50 centimes a pound.

The handlers in France have many difficulties to contend with, difficulties which demand the sympathies of their more fortunate confrères in England. Apart from a long and expensive haul from Rotterdam, they have irksome Customs duties and aggravating taxes to meet which prohibit them at present from being able to place a really cheap banana on the market. However, banana men have the same tenacity of purpose all the world over, and find their chief pleasure in surmounting obstacles. Moreover, the foreigner has not been slow in noting the tremendous advantages of our modern methods—such as flating, regulators, etc., and his only complaint is the now almost universal cry: "Why can't you send more?"

It is stated that the United States Government has asked the British Government to prevent "rum-running" from the West Indies, either by treaty or by the establishment and enforcement of regulations to prevent it. Presumably the term "rum-running" is used generically to cover smuggling of spirits of all kinds, since it is whisky that is being imported into dry America in greatest quantities. The position is a difficult one to deal with, since, as far as the British and Colonial Governments are concerned, the liquor trade is conducted on perfectly legitimate lines, and they could hardly be expected to assist in enforcing America's prohibition policy. It has been suggested that the American Customs jurisdiction might be extended to eighteen miles from the mainland, which would enable patrol launches to search any suspected vessel outside the usual territorial waters; but the adoption of this proposal might well lead to International complications.

AMERICAN ENTERPRISE IN CUBA.

(Continued from page 831.)

On a study trip through Cuba in 1915 the factory managements of six American-owned factories in eastern Cuba furnished the writer with the cost of production figures for a total of 18 campaigns, the figures covering from one to eight campaigns per factory. The lowest cost for a single campaign of an individual factory was 1.35c. per pound and the average cost for the 18 campaigns of the six eastern factories was 1.58c. per lb. Management reports covering 16 campaigns of 4 large American factories equally well managed in western Cuba showed an average cost of 2.42c. per lb., an excess cost of 84 cents per 100 lbs., as compared with the six factories in eastern Cuba. Eastern Cuba abounds in good harbours, all of the mills are within a few miles of the coast, the normal freight rate to New York is 8 to 12c. per 100 lbs., and all the projectors of new factories with whom the writer came in contact were counting upon their ability to land sugar in New York at a cost not to exceed 2c. per pound. Comparing Cuban and American costs of production it may be said that in the latter the average cost of the extractable sugar in the beets alone on the 44,000,000 tons produced from 1905 to 1914 was 2.218c. per pound, or 63.8c. per 100 more than the total cost of producing sugar in eastern Cuba, and to this must be added transportation from farm to factory, factory labour, fuel, coke, lime and other supplies, administration, overhead, depreciation and all other charges. Under the abnormal conditions which prevailed in the years 1919 and 1920, American farmers received 4.76 and 4.57c. per pound respectively for the sugar which was extracted from their 15 million tons of beets.

AMERICAN RAILWAY ENTERPRISE.

The building of the Cuba Central Railway along the "hog-back" of Cuba from Santa Clara through the eastern provinces of Camaguey and Oriente to Santiago, was begun by American capital soon after Cuba gained her independence. Prior to that time, except for small areas adjoining the seaports, these two provinces were a *terra incognita*, a vast forest and dense jungle through which there were no roads and but few trails.

Unimproved lands in Cuba being free from taxation, the greater portion of the vast wilderness of eastern Cuba has descended from generation to generation in large tracts, and its selling value was merely nominal. With the advent of transportation facilities the incoming American sugar exploiters were quick to see the advantages of clearing and planting this low priced wild land instead of embarking on improved lands in the western portion of the island. Non-resident owners were slow to appreciate the value of their holdings, and American companies usually acquired several times the area of cane-lands needed for the mills they erected. In many cases the land was bought for a song. The writer's attention was directed to a hundred thousand acre tract which one American

company purchased for \$190,000, but usually the cost, while low, was several times this rate per acre.

In purchasing virgin land, the purchaser usually contracts with the seller to clear a certain portion of it, plant it to cane, and furnish cane to the mill for a period of six years, with the privilege of renewal for another six years, generally on the basis of 4 to 5½ per cent. of the weight of the cane in raw sugar, or from one-half to two-thirds the price paid in Western Cuba for raw material. The cost of clearing is advanced by the new owners, and is paid back in yearly instalments deducted from the payment for cane, so that in six years not only has the mill made the customary profit on the cane ground, but it has thousands of acres of profitable cane fields, the cost of which is only the nominal cost of the wild land.

When, in 1915, the writer travelled from Santa Clara to Santiago, Santiago to Antilla, and Antilla to Camagucy, the clouds of smoke from bush fires were so continuous it seemed as though the entire stretch of more than 1,000 miles of main and side trips was being prepared for planting. To prepare the land for planting, the jungle is cut and grubbed out, the trees are felled on the brush piles and burned, after which such brush as was not burned by the first fire is raked into piles and subjected to a second burning. Looking across the network of unburned logs and stumps, one is puzzled to know how a bull-cart of cane ever can be hauled across such obstructions, but somehow they manage it, and in due course they are obliterated by decay. With the land still covered with stumps and 6 to 16-inch logs, ploughing would be impossible, even if it were necessary, which it is not. The writer visited one plantation which had 20,000 acres of ripe cane before ever they had a plough on the estate.

HOW THE CANES ARE PLANTED.

To plant the cane, gangs of natives armed with steel pointed sticks jab holes in the ground as near as they can calculate 3 ft. by 3 ft., skipping logs and stumps, drop in a joint of cane, scrape the dirt over it with the foot, and in one to three months the new cane leaves completely shade the ground, and from that time on the roots continue to yield an annual crop of cane for from 20 to 50 years without replanting. At Guantanamo the writer saw a cane-field from which the fiftieth successive crop of cane was being cut from the same roots without replanting. Other fields which had been producing cane from the same roots for 20 to 40 years without replanting were common, and the writer was informed that none of the cane planted in these new districts since Cuban independence had been replanted.

Perhaps an even greater advantage than the long ratooning of cane in Cuba is enjoyed by those who take up and improve wild land in Eastern Cuba. During all the centuries of natural growth, the jungle throughout Camaguey and Oriente has been so thick that neither weed nor grass seed which happened to have blown into it could live and germinate, and hence, unlike the fields in the west end of the island and elsewhere in the world, there is none of this foul growth to fight, either imme-

diately or during a long term of years. Except on the older sugar estates which had been in operation near Santiago, Guantanamo and Nuevitas long before Cuban independence, none of the cane fields visited had ever been cultivated, and all the estimates submitted to the writer on the total cost of cultivation in eastern Cuba placed it "less than a dollar an acre per year."

Assuming that in their year of greatest production the 85 American-owned mills listed ran to capacity, they have a combined annual capacity of 8,116,942 tons of sugar, equal to 70 per cent. of the total amount of sugar produced in Cuba in 1918-19, the year of the island's greatest production. Of the 85 American-owned mills, 49 are either owned outright by American sea-board sugar refining companies, or are affiliated with them by interlocking officers and directors, as shown by Poor and Moody's Manuals. These 49 mills have an average capacity of 47,572 tons per mill, a total of 2,331,033 tons, equal to 58 per cent. of the total Cuban sugar production in 1920-21.

In his testimony before the Senate Committee on Finance on December 19th, 1921, Mr. Henry A. Rubino, of the Mirandi Sugar Company, representing the American producers of sugar in Cuba, submitted a tabulated statement showing that the total value of the assets of American companies engaged in the Cuban sugar industry now amounts to \$621,219,766, and that these American companies own and control 4,459,407 acres of cane land, which, with the average Cuban yield of 2.46 tons of sugar per acre, would produce 10,970,000 tons of sugar. Of the total American-owned cane area and assets in Cuba, Mr. Rubino's statement shows that 3,828,549 acres and \$489,698,904.67 of the assets are owned outright by United States sugar refining interests, or by companies affiliated with and controlled by them, these interests having a sufficient cane acreage to produce an annual crop of 8,188,000 tons of sugar.

OBITUARY.

MR. EDWARD GOULBURN SINCKLER.

We regret to state that Mr. Edward Goulburn Sinckler, manager of the Barbados Savings Bank, died on June 30th, after a brief illness.

The son of the late Rev. E. G. Sinckler, the subject of our memoir, was born in 1856. He entered the Civil Service of the Colony in 1874, as a clerk in the Colonial Secretary's Office, rising to be Chief Clerk of the Record Branch, and Acting Clerk to the Governor. In 1892 he was appointed Chief Clerk to the Judges of the Assistant Court of Appeal. He received the substantive appointment of Police Magistrate and Judge in 1901, having very frequently acted in that capacity previously, and notably having acted as Coroner of St. Michael at the time of the hurricane of 1898. In 1911 Mr. Sinckler was appointed Census Commissioner, receiving, eight years later, the post of Manager of the Government Savings Bank, which he held at the time of his death.

AGRICULTURE IN TRINIDAD.

A Record Cacao Crop.

A record was broken by the quantity of cacao exported from Trinidad last year, when the total amounted to 75,238,566 lbs., beating the previous record figures of 1917 by five million lbs. The Director of Agriculture's report for 1921 shows that there were no unusual diseases or pests. Pod-rot was prevalent, due to the wet season, but the same cause resulted in thrips attacks being less severe than usual. A special campaign against the cacao beetle, which causes damage principally to neglected small holdings, was waged in the Moruga district.

So successful was the campaign waged, under the direction of Mr. C. M. D. Roach, against the mosaic disease of the cane, that whereas to start with the average infection was 100 stools per acre, at the end it was less than two. The unusually wet year was a heavy handicap, but the very considerable success achieved gives reason to hope that with continued watchfulness in 1922, and hearty co-operation of the planters large and small, the disease will be prevented from doing any considerable harm in the future.

Taking as usual one pound of copra as the equivalent of three nuts, the exports of coco-nuts were approximately 33,000,000 nuts, compared with 39,000,000 in 1920, whilst in value they fell from £416,575 to £172,077. Diseases are still troublesome, mainly bud-rot and red-ring. As already reported, the latter has been shown by Mr. Nowell to be due to a nematode. On some estates it causes heavy losses amongst palms just reaching the bearing age, losses which prompt and vigorous action in destroying the diseased plants and checking by cross drains the spread of the disease to adjacent trees would, it is believed, materially reduce. The first cases are too often neglected and allowed to become centres of infection. Work on these lines is the more necessary as older trees are very much less liable to infection, so that the expense of eradication is only necessary for a comparatively brief period. As yet, coco-nut diseases are not fully understood here or in any other country.

The Anthracnose (Wither-tip or Blossom Blight) of limes, first reported in 1918, shows no sign of disappearing, and is very widely spread—it was found, even on an isolated old tree on the very summit of the Island of Chacachacare, at an elevation of about 810 feet. In Tobago it is present apparently only on one estate, and with the permission of the owner arrangements were made to destroy all the limes on the property. Infected trees in the neighbourhood were also destroyed and compensation paid. The Rangpur lime, said to be resistant to the disease, has been introduced, and a plot of it planted at St. Clair. The old cotton ginnyery building at Scarborough was added to during the year by the Public Works Department to make it suitable for the promised co-operative lime factory.

The exports of citrus fruit were larger than in 1920, being over 1,100,000 oranges.

WHAT IS LIME-JUICE CORDIAL?

Should it contain Phosphoric Acid?

Mr. Wood on page 53 of his recent Report, dealing with the competition that lime-juice had to face from drinks made with synthetic chemicals, stated that he was "considering with other departments of His Majesty's Government whether an amendment of the Food and Drugs Act would be possible" in order to obviate this.

That some legislative change is necessary is evident from the failure of a recent prosecution under the law as it stands—a case vitally affecting growers of limes, but in other respects recalling some of the features of the famous "Demerara Sugar" prosecutions of the last twenty years.

In this case the defendant, Mr. Herbert Foster, was summoned at Marylebone on June 23rd to answer a charge of selling to the prejudice of the purchaser, lime-juice cordial which contained forty grains of phosphoric acid per pint, and was not, therefore, of the nature, substance and quality demanded by the purchaser.

Mr. Charles Hill, who prosecuted on behalf of the Paddington Borough Council, said that the case arose in respect of a bottle of lime-juice cordial which the Council's inspector had had analysed. The label on the bottle read "Schweppes' Lime-Juice Cordial, prepared from the juice of the finest West Indian cultivated limes." Lime-juice cordial by no stretch of imagination would include phosphoric acid, the use of which, however, seeing that it was £140 per ton cheaper than citric acid, one could understand.

Mr. A. W. Stokes, public analyst, giving evidence, said that the presence of phosphoric acid was quite unusual and not at all necessary. He had never before found it in lime-juice cordial, which should consist of water and sugar, citric acid and essential oils due to the lime. Phosphoric acid was not injurious in any way. The idea had been spread about that citric acid contained lead, but this was not a fact. Similar evidence was given by Dr. Dudfield, Medical Officer of Health for Paddington.

For the defence, counsel contended that the prosecution failed in that the inspector had asked for Schweppes' Lime-Juice Cordial, and had obtained the article for which he had asked—which the magistrate declared was an important point to raise, as it might lead to a new Act of Parliament being passed. Mr. James Forbes Henderson said he had been forty years engaged in the manufacture of lime-juice, and was now associated with Messrs. Schweppes. To his bitter regret he had tried to make lime-juice from lime-juice, water and sugar alone, and the public would not have it, because it was harsh in flavour. It was necessary to add some acid, preferably phosphoric acid. He admitted that his firm also sold a lime-juice described as pure West Indian lime-juice which did not contain phosphoric acid.

In dismissing the case, the Magistrate (Mr. J. A. Symmonds) said that several sample bottles of lime-juice cordial of different makers had been produced, all of which were completely free from phosphoric acid. They were all of a lower price than the one in this case, except one, which was the same. He found, however, on the facts before him that the purchaser did not get an inferior article to that to which he was entitled.

THE TEN YEARS' PLEDGE.

"Undertaking" the Same as Agreement.

In view of the prevailing uncertainty as to the exact scope of the Government's pronouncements regarding the guarantee of preference to the West Indies for a period of ten years, Sir Edward Davson, as President of the Associated West Indian Chambers of Commerce, addressed a letter on May 26th to the Parliamentary Under-Secretary of State for the Colonies, going over the whole ground, and inviting a statement as to what extent the position had altered since Mr. Wood made his original statement, and how far the West Indies could still rely on the continuance of the preference.

Sir Edward pointed out that Mr. Wood had announced to a meeting of the Associated Chambers in Trinidad on 29th January that His Majesty's Government was prepared, subject to the approval of Parliament, to enter into a formal agreement with the West Indian Colonies that the existing preference on West Indian goods imported into the United Kingdom should be continued for ten years on the basis of reciprocity. The letter then drew attention to the fact that in an answer by Mr. Churchill in the House of Commons on the 23rd February, and a despatch addressed to the West Indian Governors on March 9th, the word "undertaking" had been substituted for the word "agreement." Whilst the change of policy thus indicated had caused some apprehension, Sir Edward thought that the West Indies would be prepared to acquiesce in the form of the guarantee being a matter for the Imperial Government to decide, so long as the preference was maintained.

On May 22nd, however, Mr. Wood had stated that it was the intention of the Government to "maintain this undertaking so long as they continue to enjoy His Majesty's confidence," from which it would appear that the original promise of a formal agreement had been reduced to an undertaking that the Government would not withdraw the preference before the next general election. He concluded:—

"Should this view of the position be correct, I can only say that it will cause the most bitter disappointment throughout the West Indies. High hopes have been placed on an announcement which promised so much, but it is difficult to see how these can be sustained in existing circumstances. It is realised that it is possible for future Parliaments to reverse the policy of their predecessors, but no Parliament would presumably revoke an agreement without mature deliberation. The same security cannot be felt over an undertaking which has so far only been given in Parliament in the form of an answer to a question, and great uncertainty is bound to arise in the West Indies as to how far this may be considered binding on, or even remembered by future Governments."

Mr. Edward Wood replied on July 11th. After pointing out that it would be a source of keen regret to the Government if there should be any misapprehension in regard to their policy on this matter, he went on to say that to the full extent of their power the Government had, subject always, of course, to the over-riding authority of Parliament, definitely committed the Mother Country to

a continuance of preference on the existing lines to articles at present enjoying it for a minimum period of ten years.

"There is, in the opinion of His Majesty's Government," he continued, "no difference between an 'agreement' and an 'undertaking' in such a matter. Both alike constitute a pledge, the value of which depends on the prospect of its being kept as a matter of public faith, and not upon the form in which it is cast. If the undertaking were embodied in a formal written agreement, it would not be the document but the honourable obligation to observe its terms that would constitute the guarantee to the West Indies of the continuance of preference. As, therefore, there are some constitutional and practical objections to reducing the undertaking to the form of a written agreement, His Majesty's Government have on further consideration preferred to use the term 'undertaking,' which more accurately expresses the substance of their engagement, but in their opinion in no way detracts from the binding character of their promise."

Finally, as regards the anxiety lest a change of Government should lead to a reversal of policy, Mr. Wood stated that the Government could not doubt but that their successors, even if they disagreed with the policy involved, would consider themselves fully bound by the pledge which had been given, and there was no ground whatever for anticipating any such departure from established precedent and from the honourable traditions of public life in this country as would be involved in a failure to observe an undertaking which had thus been formally given to the West Indian Colonies.

The West India Committee has been informed by the Imperial War Graves Commission that the Director of Works, who recently visited Taranto Cemetery, in which many N.C.O.'s and men of the British West Indies Regiment lie, found it exceedingly well kept and tidy. The cemetery is in a secluded and beautiful spot, and the many flowers in it are now in bloom.

THE BOARD OF TRADE RETURNS.

That the monthly Board of Trade Returns need overhauling and recasting in some respects must have been apparent to the readers of THE WEST INDIA COMMITTEE CIRCULAR, which has protested against "rum and imitation rum" appearing as a single item, and saccharin being classified as sugar. Now comes another complaint, Messrs. Clayton & Jowett protesting in our contemporary the *Mineral Water Trade Journal* against the failure of the authorities to differentiate between Jamaica and Cochin ginger. They point out that the value of ginger imported in May was given as 70/- per cwt., whereas Jamaica ginger root was valued at 195/- to 250/- per cwt. during that month.

Another cause for complaint is the classification of direct consumption sugars, such as plantation white, Demerara sugar, etc., as "unrefined." Direct consumption sugar and raw sugar would be a more suitable form of classification.

ALCOHOLIC MOTOR SPIRIT.

The Distillers Company's Enterprise.

Speaking at the annual general meeting of The Distillers Company at Edinburgh on July 14th, Mr. W. H. Ross (the managing director) said that there could be no doubt whatever that the greater the number of people who could be weaned from the habit of partaking of spirituous liquors as a beverage in moderation through the effects of the high price which the continuance of this excessive duty entailed, the more vulnerable would be their position when the next local veto election took place. Now just as a prudent man insured his property against the possibility that some day it might be burned to the ground, so the directors were ever alive to the importance of looking out for new outlets for their products to provide for the possibility of the present channels of business being closed against them. He was glad to acknowledge the valuable assistance which they had received from the Fuel Research Board through their officer, Sir Frederic Nathan, K.B.E., also from H.M. Board of Customs and Excise, in getting the necessary alterations made to the regulations permitting of the easier handling of this product. This has enabled them to erect a mixing plant at their Hammersmith Distillery, London, from whence they are regularly supplying quantities of their "Discol" motor spirit to a limited number of users.

The Empire Motor Fuels Committee of the Imperial Motor Transport Council have published an interim report of the sub-committee, of which Dr. Ormanby is chairman, appointed to investigate the behaviour of alcohol when used as fuel in internal combustion engines. Their conclusions are:—

(1) Alcohol can be employed from the low compression employed on paraffin engines up to a far higher compression than can be used on any petrol engine; (2) the thermal efficiency obtainable with alcohol is higher than with petrol or benzol; (3) under all conditions of throttle or mixture alcohol requires the spark more advanced than is the case with petrol or benzol, and much more advanced with the weak mixtures; (4) there was no evidence at any piston speed attained in the engine that the rate of combustion of alcohol under the conditions obtaining was too slow to obtain the maximum effect; (5) detonation does not occur at compressions up to 8-1, and pre-ignition does not occur at 6-1, even when running for long periods at the highest possible power output of the engine; (6) there were no evidences whatever of corrosion in the engine; (7) the power output and efficiency are increased by low temperature of the circulating water; (8) supplying heat to the carburettor reduced the power output, but slightly increased the thermal efficiency; (9) increase in the water contents up to 10 volumes per cent. is an advantage, particularly in very high compression engines.

A new series of experiments is now in hand with a view to investigating the effect of ether with alcohol, and the influence of alcohol when mixed with petrol, benzol, paraffin, and the like.

PIGS IN DOMINICA.

The Need for Stock-Raising.

A considerable number of pigs are bred in the country districts of Dominica, and also in the villages, but the conditions under which they are raised are not pleasant.

In a valuable memorandum on the subject, Mr. Joseph Jones, the Curator of the Botanic Gardens, shows that pig-raising on scientific lines is taking an increasingly prominent part in the island's agricultural economy, although the topography of Dominica is not altogether favourable for stock raising, except perhaps in the case of the agile goat, owing to the lack of any considerable areas of level or slightly undulating land. It is due to this fact that the meat market in Roseau depends to some extent on importations of cattle from Montserrat. During the war, when this source of supply was cut off, the stock of animals in Dominica, never quite equal to local wants, was greatly depleted, and is now only slowly recovering from that serious set-back. Although the island is not, from a stockman's point of view, altogether well suited for stock raising, pigs do well if properly housed and fed. It is, of course, well known that wild pigs, the descendants of domesticated pigs, exist in the forest, where they live on various wild yams, the fruits of forest trees, and unfortunately, by raids on the varied produce found in peasants' gardens situated near the edge of the forest. These pigs are occasionally hunted, but possibly not so much since the hurricanes of 1915 and 1916 owing to the difficulties of travelling through the forest caused by fallen tree trunks. The flesh of the young hogs is said to be well flavoured.

The kind of pig in Dominica is largely Berkshire, but it has not been kept up by regular importations of new blood. Consequently, the pig of to-day, owing to poor feeding, bad housing, and general degeneracy, is an exceedingly small and lean representative of the above breed. During the days of the Agricultural School, a couple of Poland-China boars were kept for breeding purposes. These were sent round the island and stood for service at different estates. This good work of improving the local breed of pigs came to an end on the closing of the Agricultural School twelve years ago. As regards Dominica it is not difficult to answer the enquiry as to the breeds best suited to local conditions. The trials at the Agricultural School some years ago, the experience of planters who have imported boars, and the recent work at the Paz Farm, all confirm the Berkshire and the Poland-China as the premier breeds for the island. The white Yorkshire and the Tamworth breeds do not thrive. There appears to be no record of any importation of Duroc-Jersey pigs.

While there appears to be no very great scope for a pig-raising industry in Dominica, it is probable a fair measure of success would attend well directed efforts by two or three hard-working individuals. Vegetables for feeding these animals could be raised, perhaps, more easily than in any other

island, and if the efforts were made on or near a lime estate, this food could be supplemented by lime seeds, of which the pigs are very fond, and on which they fatten readily. The question of shelter during night should not be a difficult one in a country like Dominica in which an abundance of posts and thatching material can be easily obtained. The matter of enclosing even small fields with imported fencing is impossible under present conditions on the score of expense. It remains to be seen whether that useful tree, *Glicidia maculata*, could not be utilised in this connection for enclosing fields with a living stockade. Posts of this tree carefully planted at about ten or twelve inches apart will speedily take root, and with the rapid growth of this species, should form an excellent and lasting fence if kept topped at a height of about five or six feet. To form a suitable fence of this kind would require twelve months or more, according to the care given, as well as a supply of established trees to furnish great numbers of cuttings. An alternative scheme would be to fence in the land with rough posts placed ten or twelve feet apart, and barbed or other wire, and then to plant *Glicidia* as stated above and secure the cuttings to the wire for support. By the time such material as barbed wire has rusted away, the living fence should be thoroughly established and should prove practically permanent.

While it is hoped that some attention will be given to this matter of hog raising, efforts could also be made in other directions for the purpose of increasing the local meat supply. If planters could only be persuaded to give more attention to the planting of coconuts, a very promising industry for Dominica, and utilise some of their best lands for this purpose, numbers of sheep could be raised, especially when the coconut palms were between two to seven years of age, at which time there is usually a rich herbage covering the ground coupled with a certain amount of grateful shade. There is no doubt that the extension of coconut planting and the raising of sheep could proceed side by side with considerable advantage to the planter, and with every prospect of effecting a gradual improvement in the agricultural conditions of Dominica. Comparison with the other islands would probably show that all kinds of live stock in Dominica, both in proportion to population, and to area under cultivation, are on a lower ratio in both instances than in neighbouring islands. It is well known that many estates do not carry the number of head of cattle which they should do, both in their own, and, incidentally, in the public interest.

WANTS.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

LADY travelling to Demerara in September would like another lady to assist her on board to destination or near port. Has been very ill. Half passage in exchange. Reply to "T. G.", c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, London, E.C.3.

THE WEST INDIAN OILFIELD.

Were oil not temporarily under a cloud owing to over-production, an article on Petroleum in Central America and the West Indies, appearing in the July number of the *Mining Magazine*, from the pen of Mr. Henry B. Milner, would arouse much enthusiasm regarding the oil-yielding possibilities of the West India islands.

Mr. Milner, who is an accepted authority, being lecturer in Petroleum Technology to the Royal School of Mines, quotes Sir Stopford Brunton as stating that "So far, neither petroleum nor natural gas has been found in Jamaica, but during the winter of 1919-20 some prospecting was done with a view to determining the possibilities of finding oil in certain Western parishes," and adds that it seems almost incredible that the largest of the British West Indian Islands should have been neglected in the matter of oil exploration until comparatively recently.

In Jamaica there exist structures such as are frequently favourable to the accumulation of petroleum, providing the faulting has not been too excessive. There is, however, apparently very little surface evidence of oil though the nature of some of the deposits, more particularly the lowest members of the Coastal Series, is suggestive. Apart from the Western part of the island, some possibilities would seem to exist in the district lying to the east of Kingston, where both sediments and structures are potentially favourable.

Coming to Antigua, Mr. Milner points out that practically the entire Southern and Western parts of that island are composed of a complex of igneous rocks and altered sediments corresponding in age and character to the Blue Mountain Series of Jamaica. There remain the Tertiary areas of the central plain and of the country to the North and North-East which have been prospected, but so far no favourable indications of petroleum have been reported, though the type of rocks developed in the North-East (representatives of the Oceanic Series of Jamaica) and also the local structures, would seem to be quite favourable.

In British Honduras oil exploration has been largely confined to the Cretaceous dolomite region, and to the northern area of Tertiaries, though a more thorough geological survey is now in progress. Geologically speaking, Mr. Milner considers that the conditions would seem to be decidedly favourable to the ultimate location of an oilfield there.

BIRTH.

The charge for the announcement of Births, Marriages and Deaths is 3/6 for three lines and 1/- for each additional line.

PEARCE.—At Belize, British Honduras, on June 21st, the wife of H. W. Pearce, of a son.

DEATH.

WOODHOUSE.—On July 29th, at a nursing home, Coventry Archer Woodhouse, of 30, Mincing Lane, and 13, Gledhow Gardens, S.W., late of Southmead, Wimbledon Park, aged 74.

JOTTINGS FROM MY NOTEBOOK.

BY AGRONOMIST.

Among the many Belgian industries which suffered during the war was that of vegetable oil. In 1913 Belgium imported 260,000 tons of linseed. In 1920 the imports only amounted to 21,000 tons.

Sugar is the greatest manufacturing industry in the land of the Mormons, there being 18 beet sugar factories in Utah, with a total root capacity of 15,000 short tons per day—say between 1,700 and 2,000 tons.

In one of the many coffee substitutes which obtain in Germany, there has been found roasted and ground narcissus bulbs. The Teutonic stomach must be functionally peculiar, as the bulb of the narcissus contains an alkaloid whose action is strongly emetic.

The consumption of air-dried peat in Ireland on the domestic hearth is stated to be about 7,000,000 tons annually, and it is calculated that the Irish bogs contain no less than the equivalent of 4,000,000 tons of peat dried to a water content of 25 per cent. In an ordinary Irish bog there is 90 per cent. of water.

In the United States the term Holsteins is applied to a breed of cows which in the United Kingdom is called Friesians, as this breed comes almost entirely from the Friesland district of Holland. The breed in the United States vies with the Jersey in popularity and numbers. There are records of Holstein cows yielding 50 quarts of milk a day.

The whole of the cotton seed used for planting purposes in Montserrat for the 1921 crop was treated by heat for the destruction of the larvæ of the pink boll-worm by means of a citrate drier which was in the island. The maximum temperature used was 180 deg. F., and it is stated that the vitality of the seeds was in no way impaired by the treatment.

The coffee industry of India is practically confined to Southern India, comprising the Madras Presidency, Coorg, and the States of Mysore, Travancore, and Cochin. In 1920-21, according to Mr. D. N. Ghosh in the *Indian Trade Journal*, the total area under cultivation was 124,572 acres, or an increase of 7 per cent. on that of the preceding year. The total production of cured coffee was 22,486,098 pounds, and the yield varied from 245 pounds per acre in Travancore to 1.82 pounds in Cochin.

The "greyback" beetle is one of the great pests of the Australian sugar industry, and the question of the manurial value of "beetlemeal," prepared from their dried bodies, has been made the subject of investigation by the Bureau of Sugar Experiment Stations in Queensland. The meal has been found to contain 10.20 per cent. of nitrogen, 1.75 per cent.

of potash, 1.66 per cent. of phosphoric acid, 0.27 per cent. of lime, and 1.82 per cent. of fat. The Australian valuation of this fertiliser is about £11 per ton.

The *Journal* of the Jamaica Agricultural Society is a great believer in the use of wood ashes in agriculture. Ploughed in around fruit trees it will often immediately improve the quality of the fruit, especially in cases where the fruits store much starch and sugar. In the treatment of stiff clay soils it is also invaluable. In one instance, the *Journal* states, where the soil was so stiff that it caked and cracked unless kept constantly watered, in three or four weeks after the application of wood ashes it became quite loose and friable.

Bees in the United States are evidently recovering from the effects of the war, the loss of colonies during last winter and that of the year before having only been 9.4 per cent. and 8.4 per cent. respectively, as against 12.4 per cent. for the seven winters of 1913-14 to 1920-21. According to *Sugar*, the loss was due to weakness of colonies from deficiency of young bees due to poor queens, short food supply, and disease, the latter causing a loss of 3.6 per cent. The want of proper winter protection caused a loss of 1 per cent.

The destruction of Indian corn by weevils has been very considerable in Louisiana, but the trouble has now been successfully dealt with by converting an ordinary corn-crib, or granary, into a weevil-proof crib, fitted with hatches and ventilating pipes. After the weevils which have been brought in from the fields have developed and the eggs hatched, almost all the hatches and ventilating pipes are closed, and bisulphide of carbon poured in on the grain, in the proportion of 1,000 pounds to 12,500 bushels of corn, through those left open. The crib is then completely closed for 48 hours and reopened. Mr. Horace Nelson states in *Facts about Sugar* that after this treatment "we have yet to find a live weevil, but we find many dead ones."

Dr. Lode has been studying the subject of further sugar content possibilities in the beet. From his observations it would appear that the beet possesses two descriptions of leaves, the starch leaves, whose function is to form and maintain a stock of starch, and the sugar leaves, which never form starch, but which accumulate soluble carbohydrates, especially saccharose. It would appear that after a limit of accumulation of sugar the beet only forms starch. This limit appears to be increased by the degree of osmotic pressure, the higher the pressure the greater the production of sugar. Seeing that the structure of the beet as regards its histology is quite different to what it was in the past, when the sugar content was relatively low, Dr. Lode concludes that the limit of accumulation of sugar in the beet can be carried further by continuous selection. In 1907 the highest sugar content found was 21.8 per cent. In 1909 this limit had risen to 24 per cent., and during the last European crop, individual beets were found containing 27 per cent. of sugar.

THE WEST INDIES REVISITED.

BY ALGERNON ASPINALL.

(Continued from page 342 and concluded.)

The broad highway between Kingston and Spanish Town runs in places almost parallel with an historic section of the Jamaica Railway—historic because it was the first iron road to be constructed in the western tropics. The prospectus of the concern was issued in the memorable year of "railway mania" in England, which perhaps accounts for the fact that though the original line was only ten or twelve miles in length, it cost no less than £222,250 to build! This "golden line," as it might have been called, for many years came to a dead end at the Angels, just beyond Spanish Town; but it has long since been extended right across the island to Montego Bay, while branches serve Ewarton, Clarendon, and Port Antonio. The main railway follows, for the greater part of its length, an extraordinarily inconvenient route, passing through a desolate and rocky district called the Cockpit country, which, though pleasing to the eye on account of its rugged scenery, is perfectly useless for agriculture. After enduring many vicissitudes the railway is now owned by the local government.

Spanish Town, the old St. Jago de la Vega of the Spaniards on the banks of the Río Cobre, or Copper River, became the capital of Jamaica in 1664, and retained that distinction until 1870, when the seat of Government was transferred to Kingston by Sir John Peter Grant. Had that Governor been possessed of second sight, and foreseen the discovery of the internal combustion engine and the revolution that it was to make in means of communication, Spanish Town would probably still be the capital, so easily is it now reached from Kingston by motor-car, and the need for building a new Parliament House would have been obviated.

To-day the old town is very much a place with a past. Its handsome red brick Cathedral, with many monuments from the chisels of Bacon and other well-known sculptors, is sadly deserted. So, too, is the picturesque King's Square, now a garden of tropical palms, round which stand the old King's House, the former Public Buildings, and the most impressive memorial in the British West Indies—that erected in honour of Rodney, the victor of the Battle of the Saints. This memorial consists of a classic temple surmounted by a cupola and lantern supported by open arches and connected with the neighbouring buildings by a colonnade. Under the cupola stands the elder Bacon's statue of the Naval hero, who is shown incongruously attired in the scanty garb of a Roman warrior, whilst on either side of him is a bronze cannon, one of the few remaining relics of de Grasse's flagship, which, after being brought triumphantly into Kingston Harbour after the battle, was wrecked by a hurricane on her voyage to England.

Anthony Trollope's remark that three people made a crowd in New Amsterdam might be applied with equal force to Spanish Town. The old capital is now but a ghost of its former self, and only the

spacious buildings remain to recall the days when fashionable ladies and their dashing cavaliers in resplendent uniforms drove in their chariots and kittareens through the square to attend the Governors' routs and levees.

After passing through the sleepy streets, all full of memories of the past, it was quite refreshing to hear the scrunching of the mills and the whirl of machinery in the Lindo factory, to which light locomotives were dragging enormous trucks, similar to those used in Cuba, laden to the brim with sugarcane. It was interesting to see how these trucks were tilted over on a movable table to enable their contents to fall on to the endless belt that carried them into the factory.

From Barnard Lodge my route lay across Mount Diabolo to the north side of the island. To reach that mountain pass we ascended Bog Walk, the Boca d'Agua, or water's mouth of the Spaniards, whose scenery is more romantic than its English name. Here the Copper River rushes down towards the sea through a rocky gorge of rare beauty and charm. The road in some parts is level with the purling waters. In others it mounts high above them. Near Spanish Town the river fills an irrigation canal, which, though artificial, furnishes one of the most exquisite pieces of Jamaica scenery. Recalling a backwater of the Thames, it is nevertheless far more beautiful than any stream outside the tropics. Feathery bamboos and leafy coco-nuts almost meet overhead, and are reflected in its limpid waters, which render the fortunate planters of St. Catherine's independent of the "seasons." Farther on, the upper reaches of the river are kept back by a great dam in order to furnish power for the tramway system and illumination of the capital.

Beyond Bog Walk the road ascends by a steeper gradient and affords magnificent views through gaps in groves of tall banana trees of the spacious vale known as the Sixteen Mile Walk, with the purple Blue Mountains beyond. The primitive huts of the squatters, with their bread-fruit trees, papaws and coconut palms, now become fewer and farther between. Just over the top of this glorious pass is Moneague, which inspired Ella Wheeler Willcox to write:—

A lovely Princess throned in high estate,
And like a watchful army in command,
The stately mountains round about her stand
While the four winds of Heaven upon her wait;
Great orchestras of birds make glad her bowers,
And nature brings her gifts of fruit and flowers.

Then comes the descent to the coast through the narrow defile appropriately called the Fern Gully, since it is one mass of ferns of every description, with their feathery fronds, including tiny golden ferns, silver ferns, maidenhair, many of which would be considered rare in a conservatory at home, and great tree ferns that could not be bettered in New Zealand.

This wonderful ravine brings one at last to Ocho Rios, on the north coast, and from there to Montego Bay the road hugs the silvery sand of the seashore, fringed as in the days of Columbus with the seaside grape, except for a short distance beyond Dry Harbour, where it dips inland.

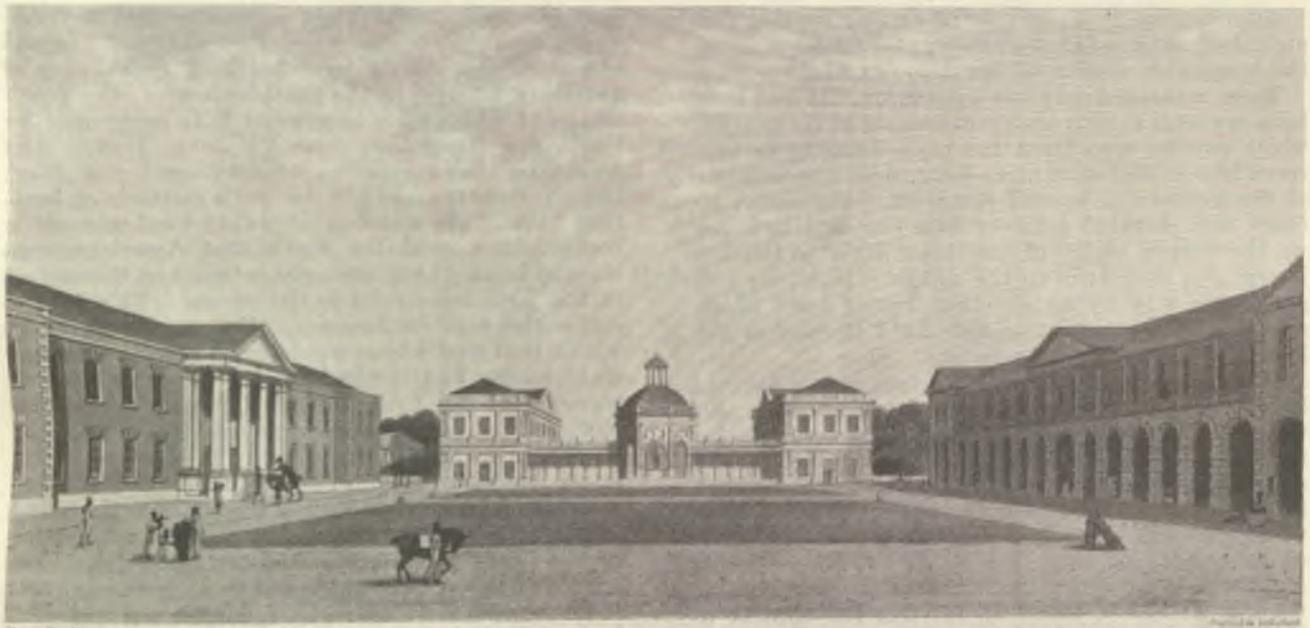
On the north side of Jamaica one is in Columbus's country. St. Ann's Bay, an exquisite little hamlet ensconced in a coco-nut grove, was the discoverer's Santa Gloria. It was near it that he established the town of Sevilla Nueva, of which no trace now remains. Dry Harbour has been identified as Puerto Bueno, where Columbus first landed after repelling the Indians, of whom he saw so many that the earth appeared to be covered with them, painted chiefly in black, and wearing nothing but plumes on their heads and aprons of leaves round their waists. Again, Don Christopher's Cove is the spot where, in 1503, he ran his worm-eaten caravels ashore when they were no longer fitted to battle with the storms of the Atlantic.

In the centuries that followed, the greater part of the coast was under sugar cane, but now bananas

called the Bogue Islands. My destination was Appleton Hall, where I received a cordial welcome from the Hon. W. Coke Kerr, the Custos, and his wife, who were engaged in a kind of meat-safe on their broad gallery, an extremely sensible arrangement at the time when mosquitoes abound.

The real business of the day consisted of a meeting at the Court House, and it was encouraging to find how greatly the work of The West India Committee was appreciated in this distant tropical town.

Next morning, after picking up Mr. Kerr Jarrett at his ancestral sugar estate, Shrewsbury, my host and I motored right across to the south side, through some of the best cattle-raising districts of the island, including the famous Pens of Knock Alva and Shettlewood, which would resemble large



The King's Square in Spanish Town.

Reproduced from an engraving in James Hakewill's "A Picturesque Tour of the Island of Jamaica." London 1825, this Square is shown as it was in 1820 or 1821 before the garden of palm trees was planted in its centre.

and coco-nuts furnish the principal crops, though near Montego Bay there is still a group of large sugar estates, which yielded prodigious wealth to the Sugar Lords in the eighteenth century. That the north coast is ideal for coco-nuts is demonstrated by the healthy appearance of the trees and the prodigious height of the old palms fringing some of the roads that lead to the substantial Great Houses of the old sugar estates.

One longed to have the time to stop and explore the old churches and Court Houses which we passed, but my chauffeur was obdurate. We had to reach Montego Bay before dark, and so well did he handle the throttle that there was still an hour of daylight before us when we passed Doctor's Cove, one of the best bathing places in the West Indies, and the pretty little villas of the American colony that has made Montego Bay its home, clattered across the old square of that town, and ascended the hill overlooking the harbour dotted with the tiny atolls

English parks but for the size of the trees and a fine herd of Indian cattle.

At Savanua la Mar, the chief town of Westmoreland, there was a meeting at the Court House, through the indulgence of Mr. Charles Calder, the Magistrate, whose administration of justice was thereby delayed. Here the talk was all of sugar, for Westmoreland is the parish which won for Jamaica the name of "The land of rivers of Rum and mountains of Sugar." This was the district in which the Beckford family, who gave London a Lord Mayor and to literature "Vatlek," made their fortunes, and through the kindness of the Hon. R. F. Williams we were privileged to lunch at one of their former residences, still named Beckford Lodge. With our party augmented by that member of the Legislative Council, we then headed for home, along the south coast as far as Black River, where there was another halt.

Black River has a very old-fashioned air about it,

the houses, like those of pre-earthquake Kingston, having galleries built out over the footwalk, and sheltered by jalousies, just as they stood in the period described in "Tom Cringle's Log." But the most beautiful part of our drive was yet to come, for after leaving Black River we turned inland and passed through Lacovia, racing over the hills, across a broad valley, and far away up a steep mountain road on the other side to Spur Tree Hill, which would be an ideal place for a hill station if Jamaicans could be induced to realise that migration to the mountains is advantageous during the hot season. Some little way below the crest of this hill is Maundeville, the most English village in Jamaica, with a picturesque church standing on the edge of a village green. Here the air was so cool and refreshing that it was difficult to believe that we were really in the tropics.

After tea we again proceeded on our course, and night had already fallen when we eventually reached the hospitable shelter of the Jamaica Club.

There remained only one expedition. It had long been my wish to visit the cantonments of Newcastle, which can be seen from the plain hanging in terraces like a Tibetan monastery, near the summit of the mountains behind Kingston. Formerly, to reach this elevated military base one had to drive up the rugged valley of the Hope River to Gordon Row and then take to the saddle. Now one can go all the way by an excellent motor road which zig-zags up the mountain side until it reaches the lowest of the range of barracks.

Perched at a height of 4,000 feet above the sea level, these cantonments were established by Sir Charles Metcalfe, Governor from 1839 to 1841, for the benefit of the white troops, who were literally decimated by yellow fever during the sickly season in the plains. In this eyrie the remnant of the white garrison must find time hang rather heavily on its hands, for there are no shops, no petticoats and none of the amenities which make garrison life what it is; but to make up for this the climate at this exalted spot is superb and the scenery exquisitely beautiful.

Finally, to speed the parting guest, there was a send-off dinner at the Jamaica Club, over which Mr. Lucie Smith presided, when all the other speeches were eclipsed by the winged words of Mr. William Morrison, who is recognised as the Public Orator of Jamaica.

* * * * *

My tour was now at an end. My great regret was that circumstances prevented my making a longer stay in the West Indian isles, the lure and appeal of which are as strong to those who have been fortunate enough to have tasted their delights as the call of the Orient is to him who has once shipped "somewhere east o' Suez."

* * * * *

In bringing this series of articles to a conclusion, it may perhaps be permissible to refer to the Americanisation of the West Indies, and especially Jamaica, a subject which usually impresses itself upon visitors to the Caribbean area.

The suggestion made by certain irresponsible politicians from time to time that our oldest group of colonies might be transferred to the United States in part payment of our war debts cannot be regarded seriously. Apart from other considerations, West Indians, who could hardly be denied the right of "self-determination" in such a matter, would not "stand for it"—to use a colloquialism. Besides, Canada would have something to say if there was any prospect of her being deprived of her most accessible source of supply of tropical produce under the British flag. It is to be hoped, however, that the emphatic statements of the Prince of Wales that the West Indies are not for sale have given the quietus to the contemptible suggestion that we should harter away our oldest group of colonies.

The Americanisation of several of the islands, and especially Jamaica, has, nevertheless, been proceeding apace, and it is not surprising that developments in Cuba, Porto Rico, Panama, St. Thomas and elsewhere should have led to a quickening of American interest in the Caribbean area, the possibilities of which have been more fully recognised by Uncle Sam than they have by John Bull. The American bag-man has re-discovered the West Indian islands, and his principal's methods of business have made a strong appeal to local mercantile communities, with the result that American commercial houses have strongly entrenched themselves in the British colonies in the group. This is especially the case in Jamaica. But one is forced to admit that that island would have been in a parlous state to-day had it not been for the enterprise and resource of the United Fruit Company of Boston. Not content with agencies, several American firms have opened their own branches in Kingston, there is an American colony at Montego Bay, and the swarms of American tourists who flock to the island in the winter months carry the peaceful penetration of the Stars and Stripes still further. Quite nine-tenths of the vessels which put in at Jamaican ports must be of American register, and it was with feelings of shame, not unmingled with gratitude, that I learnt that my only means of reaching the American continent was under the United States flag. Moreover, it jarred to hear the band of boys from a British Industrial School giving a send-off to the Roman Catholic Bishop of a British colony by playing American airs; but the Bishop was an American, and that is perhaps why so many of these young Jamaicans had "U.S. Navy" emblazoned on their caps.

Nevertheless, whatever outward appearances may be, the intense loyalty and patriotism of Jamaicans is not in doubt, and though many may like to work under the Stars and Stripes, they all prefer to sleep under the Union Jack, and "in spite of all temptations to belong to other nations" they are still British West Indians to the backbone.

THE END.

Mr. BOSWELL TUCKER has been nominated to represent the Government of Bermuda on the proposed West Indian and Atlantic Group Committee for the British Empire Exhibition, 1924.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Another Bahamas Fire.

The Governor returned from New York on July 30, after five weeks' absence, during which he successfully accomplished the objects of his mission. As a result of his negotiations, an arrangement has been come to with the Munson Steamship Line, whereby that Company will give the Colony a first-class passenger service from New York, as well as one from Florida, and will erect and furnish a first-class fire-proof hotel of three hundred rooms which they will operate in conjunction with the steamship service, for a period of ten years, in consideration of an annual subsidy of £35,000.—On June 25, less than three months after the Hotel Colonial conflagration, the Government Ice House, one of the oldest landmarks of old Bay Street, was completely destroyed by fire. The entire re-equipment of the fire department is expected to be complete shortly.—The death took place on June 25th of Mr. J. S. Garland, who came originally to the Bahamas in 1896 as engineer for the sisal plantation of Mr. Neville Chamberlain at Andros.

Barbados' Record Rainfall.

The rainfall for June was the heaviest for the last twenty years, says the *Advocate* of July 4th, and the crops everywhere are looking splendid. Threats of a water famine have consequently disappeared, but effective measures will have to be taken if the menace is not to recur. The 1922 crop is estimated as follows: Dark crystals, 32,000 tons; centrifugal muscovado, 4,000 tons; fancy molasses, 53,000 puncheons; choice molasses, 5,000 puncheons.—During the absence of Sir Charles Clark on six months' leave, Mr. H. W. Reeve will act as Attorney-General.—Following the formation of an Island Gout Society, a Dairy and Stock-Breeders' Association has now been started under the auspices of Major Watson, Hon. E. A. Hudson, Mr. V. Edghill, Mr. H. A. Arthur, Dr. Thorpe, and others.

The Problem of British Guiana's Constitution

Mr. V. P. Fitzpatrick, writing on June 20th, states that the weather has recently been on the wet side, and heavy showers have fallen, keeping the pumping engines hard at work and making the sugar estates managers concerned over the consumption of fuel. The increase in the price of sugar has reflected itself on the planting community, who are far more optimistic.—Mr. Paul Cressall, whose departure shortly from the colony for England, where he will enjoy his retirement, is announced by the *Argosy*, has offered to present silver cups to the Georgetown Cricket Club and the British Guiana Football Club.—The Elected Members of the Court of Policy have decided to take action regarding Mr. Clementi's statements regarding the colony's constitution at a recent public meeting in England, when he advocated the setting up of an official majority, from which the power of the purse was not withheld. Hon. R. E. Brassington has tabled a motion requiring the Colonial Secretary to withdraw publicly the statements complained of.—Mr. Critchlow, Secretary of the Labour Union, stated on June 16th that that body was supporting the movement for the extension of the present Governor's

regime so as to enable His Excellency to carry out plans for draining and irrigating the coastlands.—The death took place on June 22nd of Mr. Napleton King, Manager of Pln. Vergyvoegen for the last twelve years, Mr. King had previously served on Plns. La Grange, Baru, Diamond, Wales, and Vriesland.

The committee, consisting of Hon. G. D. Bayley, Hon. F. Pudsey, Mr. I. S. Hohenkerk, Mr. H. B. Lumsden, and Mr. C. Farrar, recently appointed by the Governor to consider the question of providing for the inspection of timber and sleepers for export, has reported in favour of a voluntary system of certification by a competent inspecting officer that the articles exported are true to name and free from blemish. They are of opinion that the absence of such a system, which has been in vogue in Tasmania for many years, has considerably handicapped British Guiana's timber industry.—The s.s. *Montezuma*, of the Canadian Pacific Railway Co., made her first call at Georgetown on June 18th, consigned to Messrs. Sandbach, Parker & Co.—The s.s. *Querriman*, the new steamship for the Colonial Transport Department, arrived on June 15th. Costing \$285,000, she will be used on the Demerara Ferry.

British Honduras.

Hon. G. E. Graham and Hon. L. R. Grant left the colony for the home country on June 25th. The principal object of Mr. Graham's visit to England is in connection with the proposed railway from Belize to Cayo.—The Governor's assent was given on June 14th to Ordinance No. 19 of this year, which provides for the punishment of labourers who deliberately receive advances from employers without any intention of fulfilling the contract by subsequent work, the maximum penalties allowed being a \$50 fine or six months' imprisonment with hard labour, or both.

Jamaica's Banana Trade.

Mr. R. W. Bryant and Dr. E. E. Bryant were unanimously elected Mayor and Vice-Chairman respectively of the Kingston City Council on July 10th. An impressive memorial service for the late Rev. W. Graham, Pastor of the Scotch Kirk, was held on June 9th, at which the Governor and Lady Probyn and an influential gathering attended.—The banana trade is booming, and bananas have been fetching as much as 6s. per bunch in some of the parishes. Experiments have been made by the Canadian Pacific Railway Line in shipments to Canada, and the fruit is said to have arrived in good condition.

Trinidad's Fruit Trade Development.

Among the arrivals in s.s. *Hughti*, on June 22nd, were 102 East Indians who had been previously repatriated from Trinidad and British Guiana. This, says the *Trinidad Guardian*, is the largest batch that has as yet returned, and a feature of the incident is that the immigrants gladly paid their own passages in order to settle again in the West Indies.—Reporting on a plague of mosquitoes in Woodbrook and St. Clair, the Local Authority find that the nuisance was caused by a large number of dirty pools of stagnant water. The matter is now in the hands of the Central Board. The forthcoming registration in the Colony is announced of an English company, the West Indies Co-operative Fruit and Produce Corporation, with a capital of £250,000, its object being to market on co-operative lines all the fruit, including bananas and citrus, that can be grown locally. Mr. A. N. Stollmeyer is connected with the scheme.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

Jamaica's First Motor Car.

Old Hall, Ramsden,
22nd July, 1922.

SIR,—Put not your trust in the hypotheses of professional historians. Remember "The Antiquary." That a particular car was not the first to be registered in April, 1906, does not prove that it was not in Jamaica in 1904, when there was no motor law, not even one requiring a man with a scarlet flag and a horn to walk in front of steam carriages. I remember the modest department of Mr. Nuttall's first car as well as I do the flamboyant apparition of the first boneshaker bicycle I ever set eyes on—a rattling monster with a wavy wooden backbone, a crocodile's head—spiritedly painted—and a small tightly curled up tail. Mr. Nuttall's car was not at all like that, but it had the like arresting prestige of the pioneer. It is possible that I may be mistaken, but I have several very good reasons for feeling confident that my date is correct. I was out of Jamaica from 1904 to 1907, when I returned with a car of my own. There were then plenty of others, and the steam locomobile was a "back number."

Yours faithfully,
SYDNEY OLIVIER.

Plantation White Sugar.

SIR,—It is astonishing that only in an American Sugar Journal can one read of any appreciable progress in sugar manufacture in the Island of Jamaica. In the issue of THE WEST INDIA COMMITTEE CIRCULAR for October 27th, 1921, Mr. Scard, after pointing out the quality of some Demerara sugar then on the English market, which he criticised, ended with the following:—"Surely it would be better to face the matter and make white sugar, rather than send in inferior "yellows" or trust to the tender mercies of the refiners. To show that such "whites" were being made in Jamaica a sample was sent to the late Editor of the *Louisiana Planter*, which was most favourably reported on in the issue of the *Louisiana Planter* of December 24th, 1921. This report, apparently, was never copied by any West Indian journal. This white plantation sugar, made at Mr. H. Crum-Ewing's Caymanas Estate in St. Catherine, is on view at Messrs. N. C. Henriques, Ltd., wholesale agents, show window in Kingston, and with a view of letting you see what class of white sugar is being manufactured in the Island, I have procured some of the excellent sugar which retails at threepence halfpenny per lb., and send under separate cover a sample, which I hope you will report on and let us hear the results through the pages of your Journal.

While we appreciate the fact that much of your space is devoted to West Indian industries, and in your issue of May 20th we note such headings to interesting columns as "British Guiana and its Needs," "Trinidad Fruit Industry," "Sugar Cane in Java," "Sugar in Mauritius," etc., we feel almost slighted to see any of our sugar news, or news relating to our chief industry, not sandwiched, but rolled jelly-cake-wise between a conglomeration of other subjects, and like the proverbial roll cake, the jelly layer is far too sparingly applied.

We confess to feeling no apprehension at the tirade addressed by Sir Robert Lyle against direct consumption sugars, for our local market is growing stronger and stronger each day for our high-class manufactured sugars, and we live in hopes of yet doing a business on a larger scale with these sugars with the Mother Country. Sir Harold Mackintosh, who was in the Island recently, displayed a keen interest in our high-grade sugars, and thought them equal to any he had seen elsewhere. He was of opinion that Jamaica and her doings in sugar manufacture could be better known in England, and hoped he would be able to do some good advertisement for us in this line. To show his practical interest he gave an order for some of these sugars and declared that there were other men manufacturing sugar stuffs who would find use for the other grades of sugar he has seen here.

While not forgetting that Jamaica is less than one-fifth of 1 per cent. of the British tropical possessions, as Mr. A. W. Farquharson, Chairman of the Jamaica Imperial Association, explained to us in a speech made at the welcome dinner given him on his return from acting as the Jamaica delegate on the West Indian "Higher Preference" question, still he would be glad if at times you could see your way to devoting even a good-sized paragraph in the pages of your highly-esteemed Journal, setting out plainly the doings in the sugar section of this beautiful, plucky, and interesting little Island.

In the name of all sugar men, accept thanks in anticipation.

CLAUD HILLARY.

[It is hardly fair of Mr. Claud Hillary to blame the CIRCULAR for not having reported upon sugar which was never sent to it. If the owners of Caymanas or any other West Indian estate were to send over samples of sugar to be criticised, a report regarding them would certainly be furnished; but the CIRCULAR would hardly feel justified in expressing an opinion regarding an estate's sugar without the permission or invitation of the owner. Setting this aside, the CIRCULAR cannot be accused of neglecting the question of Plantation White Sugar, the manufacture of which it has strongly urged for several years past.—ED.]

SOME COMPANY NOTES.

"Shell" and "Burmah" on Trinidad.

The Chairman of the Shell Transport and Trading Company, at the annual meeting on July 4th, had, as usual, nothing of an encouraging nature to say about his company's interests in Trinidad, which are represented by the United British Oilfields. "In Trinidad," he said, "the company in which we are interested made little progress, and drilling results have so far proved on the whole disappointing. We are undertaking a very careful geological examination, which we hope will succeed in increasing production."

Sir John Cargill, at the annual meeting of the Burmah Oil Company, which is also interested in the same concern, was pessimistic, though not to the same degree.

"Our interests in Trinidad," he said, "have unfortunately not even yet developed into a condition in which production on a satisfactory scale and of reasonable stability has been forthcoming, but geological opinion continues not unfavourable to eventual success in both these directions, and certainly, if expert and thoroughly qualified technical control can secure these results, we have every right yet to expect them."

THE WEST INDIAN PASSENGER LIST.

Elders & Fyfes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Changemole*, July 25th:—

Mrs. G. Adair	Miss P. F. Eddowes	Miss F. M. Hill
Mr. & Mrs. J. N. Eddowes	Mr. G. Mc N. Hargreaves	Mr. & Mrs. J. B. Powell
	Mr. E. M. R. Brazier	Mrs. K. Edwards

Sailings to Jamaica, from Avonmouth, in s.s. *Bayano*, July 17th:—

Mr. C. Addison	Mr. J. A. Doyle	Mr. A. W. Turner
Mr. J. Coughlin	Miss D. Gilpin Hudson	Mr. C. E. L. Vesley
Mr. R. A. de Mercado	Mr. C. McL. Morales	Miss D. Whitlaunce

Home arrivals from Jamaica, in s.s. *Coronado*, Avonmouth, July 23rd:—

Mr. W. Accar	Misses L. U. & I. B. Facey	Mrs. N. J. Morris
Mr. T. Aguilar	Mr. E. Ferro	Mr. & Mrs. Mortimer
Mr. & Mrs. Assaf	Mr. & Mrs. J. C. Hatten	Mr. & Mrs. A. C. Paton
Miss M. Baguley	Mr. J. W. Hill	Miss D. M. Pringle
Mr. & Mrs. Bowen	Mr. D. K. Hodgson	Mr. H. F. Sasso
Mr. & Miss Brown	Mr. H. Houston	Mrs. R. Tarr
Miss M. Clare	Miss N. Isaac	Mr. A. W. Watson-Taylor
Miss W. M. Cousins	Mr. J. V. Legge	Mr. E. C. Watson-Taylor
Mr. F. W. Eweligh	Lady M. H. Menzies	Miss C. D. Williams
Mr. H. A. Evelyn	Miss H. L. MacPherson	Mrs. K. M. Wilson
Mr. C. S. Farquharson	Mr. W. McMillan	Mr. H. Varid
Mr. E. H. Farquharson	Mr. B. Minot	
Mr. & Mrs. W. H. Farquharson		

Home arrivals from Jamaica, in s.s. *Barranca*, Liverpool, July 23rd.

Miss E. L. Anwyll	Mrs. J. E. Haughton	Mrs. S. A. Lezence
Mrs. & Miss Farquharson	Mr. W. J. Lane	

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Chamaellor*, July 21st:—

Mrs. Blunt	Mr. G. Drawner	Mrs. Shand
His Hon. Maids J. A. Hudson, C.M.G.	Mrs. Johnson	Mrs. Dyer Smith
Miss Davies	Mr. Juby	Mrs. Thorstein
	Mr. Lawrence	Miss Warrington

Home arrivals from West Indies, in s.s. *Commodore*, July 14th:—

Mr. & Mrs. M. C. B. Austin	His Hon. Justice S. C. Dean	Mr. C. A. Richer
	Mr. T. C. Shields	Mr. W. R. Weber

Royal Netherlands West Indian Mail.

Home arrivals from West Indies, in s.s. *Cryssen*, Plymouth, July 18th:—

Mr. H. A. Arthur	Mrs. T. Clarke	Misses Macralis (2)
Mr. & Mrs. R. Arthur	Mr. V. de Monabrun	Mr. W. Neville
Miss A. Ashby	Mr. C. Henderson	Mr. & Mrs. Pollonats
Mr. F. C. Baker	Mrs. G. King	Miss M. B. Robinson
Mr. & Mrs. H. Beutmont	Mr. R. King	Miss R. Scheuit
Mr. W. Bernoulli	Mrs. V. Knigey	Mr. & Mrs. T. Sorzano
Mr. William Brown	Mr. & Mrs. N. Manning	Mr. F. White
Mr. & Mrs. E. Canning	Mr. L. P. Marquet	Mr. C. P. Williams
Miss G. Canning	Mr. G. Mather	Mr. A. Wilson
Sir Charles Clarke	Miss T. McLaren	Miss H. Wilson
Mr. & Mrs. G. Clarke	Mr. M. Moody Stuart	Mr. & Mrs. K. S. Wise
	Miss E. Moody Stuart	

STEAMER SAILINGS.

To	From	Packet	Sailing
Jamaica	... Liverpool	... <i>Norwegian</i>	... Aug. 5
Jamaica	... Bristol	... <i>Patuca</i>	... " 8
B'dos, G'ada, T'dad, & D'ara	... London	... <i>Settler</i>	... " 11
West Indies	... Dover	... <i>Cryssen</i>	... " 12
B'dos & T'dad	... Liverpool	... <i>Meltonian</i>	... " 12
Jamaica	... Bristol	... <i>Camilo</i>	... " 14
West Indies	... New York	... <i>Parima</i>	... Aug. 25
G'ada, T'dad & Demerara	... New York	... <i>Maraval</i>	... " 29
West Indies	... Halifax	... <i>Chignecto</i>	... Sept. 1
G'ada, T'dad & Demerara	... New York	... <i>Mafuta</i>	... " 12
B'mas, Jaca & B. H'das	... Montreal	... <i>Canadian Fisher</i>	... " 13
West Indies	... Halifax	... <i>Caruquet</i>	... " 15

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates have been kindly supplied to The West India Committee by the respective Governments.

	Anti-guis. To May 31	Ber-bados. To June 30	British Guiana. To May 31	British Honduras. To April 30	Domi-nica. To May 31	Grenada. To May 31	Jamaica. To June 24	Mont-serrat. To May 31	St. Lucia. To April 30	St. Kitts. To May 31	St. Vincent. To Apr. 30	Trinidad To May 31
Arrowroot	920,927	\$4,001,188
Asphalt
Balata	221,320	110,918	1,711	4,511,170	1,219	...	...	...	...	...
Bananas
Bauxite	14,236
Bitters	27,217,764
Cacao	617,464	5,206,218	5,355,056	452	1,046,290	...	...	34,321
Cassava Starch	480
Coco-nuts	764,250	1,647,075	83,339	50	12,583,815	...	79,719	240,200	...	7,367,247
Coffee	524,828	...	...	5,407,488	...	...	...	...	...	324
Corns	38,180	38,316	...	8,777	312,885	...	83,547	...	...	2,974,408
Cotton, M. Galante	291,168	...	399,159	...	227,877	137,445	...
Cotton, Sea Island	7,750	103,751	...	...	...	...	...	285,960	...	255,960	150	...
Cotton Seed
Diamonds	54,958	...	...	...	...	...	...	...	...	182,513
Dyewoods	18,620	...	...	...	...	...
Ginger	723	1,261,004	...	...	...	...	...
Gold	4,340	...	...	...	...	...	...	...	...	...
Ground Nuts	780,412	...	...	...	...	...
Honey	50,309	9,830	...	18,791	...	...	...	15
Lime Juice (raw)	1,040	...	...	...	46,656	1,035	...	460	11,444	...	...	...
... (contd.)	49,902	...	...	...	258	...	...	...
... all
Lime (citrate of)	5,075	...	214,236	...	...	5,040	...	...	...	...
Logwood
Lumber	61,397	...	...	...	...	...	...	...	...	...
Mahogany	2,080,517	...	...	785	...	...	...	...	...
Manjak	...	49	...	...	...	...	...	...	...	...	...	...
Molasses	53,950	403,131	17,205	...	128,830	...	131,802	...	41,890	174,921	24,304	74,672
Oranges	219,518	...	900	90,805
Essential Oils	1,683	...	...	...
Petroleum	6,421,408	...	...	...	...	20,900,024
Pimento
Rice	...	10,942,399	...	...	...	...	...	...	...	...	...	872
Rubber	1,279
Rum	...	3,295	298,570	1,384	...	...	571,863	...	...	...	...	...
Shingles	775,150	...	27,250	...	...	...	6,000	...	...	...
Sugar	3,908	19,720	33,459	...	...	...	29,200	...	1,107	2,848	...	22,601
Timber	46,658	...	12,821	...	...	...	2,061	...	...	...

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.

Telegram—
"Carib. London."



15, SMITHING LANE,
LONDON, E.C. 3.
Aug. 1st, 1922.

BANK RATE. 3 per cent. as from July 13th.

EXCHANGE. Value of the £ Sterling.

	July 18th		Aug. 1st		July 18th		Aug. 1st	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
To U.S.A. ...	18 3	18 3/4	In Spain ...	1 3 9	1 2 0			
.. France ...	2 2 9	2 3 6	.. Germany ...	102 10 5	141 8 0			
.. Belgium ...	2 5 1	2 7 7	.. Austria ...	502 5 0	833 0 0			
.. Italy ...	3 1 9	3 16 9	.. Holland ...	18 9	18 10 9			

The intrinsic value of the gold sovereign is £1 ls. 9½d.

SUGAR. The New York market has been very strong during the fortnight, prices showing increasing values. Yesterday the quotation for duty-paid Cubans was 5.36c., equivalent to 3.75c. c.i.f., or about 3.60c. f.o.b., as against an f.o.b. figure on July 15th of 3.28c.

Future market quotations were: September, 3.63c.; December, 3.83c.

There has been a marked increase in demand in the home market, to a great extent due, in every probability to retailers realising that as prices are not likely to be lower in the near future, it was time to replenish exhausted stocks. Values have risen in sympathy with the movement in New York, yesterday's quotations being: London Granulated, 51/9; American Granulated, spot, 51/-; West Indian Crystallised, 43/- to 46/-; Yellow Crystals, 45/8; White Mauritius, spot, 49/-; White Trinidad, 49/-; White Brazil, 48/-; White Java for July shipment, 22/- c.i.f. Cuban 96 deg. was quoted at 19/8 c.i.f., with Preferential 96 deg. at 22/- Czecho-Slovakia Granulated for November-December shipment was bought at an average price of 21/9 f.o.b. Sales were made to Germany of White Javas at 21/9 c.i.f. Hamburg. Values in the terminal market were: 96deg.: August 19/6, September 19/6, White: August 23/11¼, October 22/9¾, December 22/¼.

During the first six months of the present year, no less than 3,500,000 tons of sugar were shipped from Cuba. With an estimated 1921-22 crop of 4,000,000 tons, Messrs. Willett and Gray's latest figure, and with an initial stock of 1,185,000 tons of 1920-21 crop sugar on hand on the 1st of January, 5,185,000 tons would be available for the calendar year 1922. Of this, 3,500,000 tons were shipped during the first six months, leaving 1,685,000 tons as available for the second six months. Of this, it is estimated that between 500,000 and 600,000 tons have been already purchased, leaving between 1,100,000 and 1,200,000 tons as being still in the market for the balance of the year.

Messrs. Willett and Gray's revised estimate of the current Java crop is 1,658,000 tons.

The reports of the several Continental 1922-23 beet crops are in favour of a higher yield per acre than was obtained last crop.

In the last CIRCULAR, "Cuban 90 deg." was a misprint for Cuban 96 deg.

The West Indian sugar statistics in London on July 22nd were:—

	1922.	1921.	1920.	
Imports ...	34,044	31,793	36,136	Tons
Deliveries ...	21,310	23,773	22,521	"
Stock ...	18,633	16,424	21,751	"

RUM. There is no demand either for the home trade or for export.

The stocks in London on July 22nd were:—

	1922	1921	1920	
Jamaica ...	13,285	11,611	10,734	Puns.
Demerara ...	19,583	17,721	12,323	"
Total of all kinds	41,789	39,408	32,900	"

CACAO. No public auctions have been held since July 4th—reported in last Summary. The market during the past fortnight has remained quiet but steady. A small business in fine Grenada has been done at about 57/- spot, and sales of fine estates Trinidad have been made at 72/- to 75/-. Plantation Trinidad to arrive is quoted at 59/- c. & f.

The stocks in London on July 22nd were:—

	1922.	1921.	1920.	
Trinidad ...	7,493	21,820	16,495	Bags.
Grenada ...	16,216	24,053	24,234	"
Total of all kinds	121,574	179,496	293,022	"

ARROWROOT. Only a small business is passing, with prices unchanged at 3½d. to 4d. for fair to good manufacturing, and 4½d. to 5½d. for good to fine grocery.

BALATA. West Indian sheet is firm but quiet. Value, spot 3/2 to 3/3.

BAY OIL continues neglected, and lower prices are expected.

COFFEE remains a very quiet market. Owing to Continental exchange difficulties, export trade is negligible. Home trade descriptions are about steady. Good to fine ordinary Jamaica is nominally unchanged at 65/- to 70/-.

COPRA is quiet, with West Indian f.m.s. valued at 22½ 10s. London or Rotterdam.

COTTON generally is in fair demand. West Indian Sea Island is nominally unchanged at: medium 23d., fine 30d., and extra fine 38d.

HONEY. At last auction about 1,100 packages were offered, but there was scarcely any bidding. A few casks of Jamaica sold at 38/6 to 45/- for setting dull yellow to pale set, and 26/- for dark liquid. Set pale Cuban sold at 45/-.

LIME PRODUCTS. **Lime Oil.** There is a disposition to sell the rather heavy stocks of Handpressed before the arrival of new supplies. In Distilled there is a steady business at 3/- per lb. **Lime Juice.** Raw is very quiet, and the value of new season's is uncertain. No sales of Concentrated are reported.

LOGWOOD is quiet on the spot, with the nominal quotation of 28 10s. per ton unaltered.

ORANGE OIL. There is a fair business in Sweet on the spot at 9/9 per lb., and small sales of Bitter have been made at 9/- per lb.

RUBBER. There is only a small business passing. Spot crepe and sheet are quoted at 1¼d. per lb.

SPICES. A few hundred bags of **Pimento** have been sold on the spot at 2d. per lb. The further decline in the value of the German mark has prevented further sales to Hamburg. **Nutmegs** are unchanged. A parcel of very wormy and broken sold at 5d. per lb. **Mace** is firm, with Grenada valued at 1/6 to 1/10 per lb. A small lot of choice flat pale St. Lucia (Moka) sold at 3/- per lb.

TRINIDAD OIL. Production for June: Trinidad Leascholds, Ltd., 8,500 tons*; Apex (Trinidad) Oilfields, Ltd., 5,000 tons*; United British Oilfields of Trinidad, 3,100 tons.

* Output restricted.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—

Demerara (Messrs. Curtis, Campbell & Co.), July 28th: "Weather favourable for cultivation." Jamaica (The Direct West Indian Cable Co., Ltd.), week ended July 20th: "Port Antonio, fair; Kingston, fine."

The West India Committee Circular

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

The West India Committee Rooms.

Telephone:
CENTRAL 3542

Telegrams:
CARIB, LONDON.



15, SHERBURY LANE,
LONDON, E.C. 3.

August 15th, 1922.

THE BRITISH SUGAR INDUSTRY.

THE Executive of THE WEST INDIA COMMITTEE in February, 1915, passed a resolution in which, after drawing attention to the fact that before the war the United Kingdom was dependent on foreign countries for no less than 95 per cent. of its sugar supply, they urged the desirability of British-produced sugar being accorded for a period of ten years such preferential treatment by the Mother Country as would suffice to encourage the development of both existing and potential sources of sugar supply within the Empire. To the extent that the Government has now given a definite pledge that a preference of one-sixth off the duty shall be granted to British-produced sugar for ten years this request has been conceded; but,

as we have already shown, this concession in itself is insufficient to restore such confidence to the British sugar industry as will encourage the investment in it of British capital. What is really wanted, and what is essential, is a guarantee not merely of the rate of preference, but of the *substantive value* of a preference on the basis of at least £8 15s. per ton on 98 deg. test sugar. That, and that alone, will "suffice to encourage the development of both existing and potential sources of sugar supply within the Empire." The movement towards stabilising the present value of the sugar preference in the United Kingdom for a specific number of years was originated primarily in the interest of the British West Indian sugar industry, and it has recently been conducted with increased vigour owing to the obvious necessity of securing that industry from such a danger as that which arose from the large production of Cuba, resulting from the support given in recent years to the sugar industry of that island by the United States Government. When, however, the value of the preference is stabilised, the effect will, in every probability, be far-reaching. Such stabilisation would ultimately lead to Great Britain's supply of sugar being drawn entirely from Empire sources. That it is in the power of the Empire to grow the necessary amount of sugar the replies to the enquiries of THE WEST INDIA COMMITTEE made on the subject in 1915-16, and published by them in a pamphlet in 1916, showed. The quantity of sugar imported into the United Kingdom in 1913 was 1,969,000 tons, consisting of direct consumption sugar and raw sugars for the refineries. The equivalent consumption of sugar for the year was about 1,750,000 tons, and as the consumption of the United Kingdom, in common with that of the rest of the world, is rapidly increasing, there is little doubt that it will soon regain that figure. The amount of British sugar now available towards this consumption is made up of the Mauritius and West Indian crops and some sugar from Fiji and Natal, not over 600,000 tons in all. In the markets of the United Kingdom and Canada, whose consumption has risen again to 300,000 tons, there is, or will be in the near future, room for over 1,600,000 tons more Empire sugar than is at present available. It follows that if this output were realised, there would go into the hands of the sugar machinery engineers of Great Britain—for it is assumed that the granting of such a preference would have associated it with the condition that the machinery came from British makers—on a conservative estimate, the sum of between £90,000,000 and £35,000,000 as the f.o.b. cost of the factories, of which a large proportion would be spent in labour. The maintenance of the factories, railways, and the annual

supply of stores, etc., would also amount to a considerable sum, while to this would be added the expenditure on agricultural implements, manures, etc., with consequent outward freights, the value of all of which to Great Britain for its share of the trade would be a very large annual item. It is also certain that general trade would follow that immediately resulting from sugar, the increased steamship traffic alone almost guaranteeing this. Apart, however, from trade considerations, it is manifestly desirable that the Mother Country should be relieved from her present dependence upon foreign countries for her supply of so important and essential a food of the people as sugar.

WANTED—A DEFINITION.

IN our last issue a resumé was given of a prosecution which took place recently at Marylebone under the Sale of Food and Drugs Act in respect of lime-juice cordial which contained phosphoric acid, the purchaser, according to the prosecution, being thus prejudiced by being supplied with a substance which contained a constituent foreign to the lime, and which was consequently not of the "nature, substance, and quality" of the article asked for. The case was dismissed, partly on account of the want of definition of what is understood by the word "cordial." The matter is one of considerable importance to West Indian lime growers, inasmuch as the decision supported the claim of the manufacturers of this description of beverage, which is becoming exceedingly popular, to eke out a given quantity of lime-juice with a substance not natural to it, but added to simulate one of its essential properties, its citric-acid acidity. The immediate effect of the addition of phosphoric acid is to give rise to a lesser use of the lime-juice itself than would otherwise be the case. Judging from the evidence for the prosecution, it is considered in analytical circles quite permissible to strengthen lime-juice by the addition of citric acid, the argument being that as citric acid is a constituent of lime-juice, the addition of it does not constitute adulteration. But citric acid is also obtained from lemon-juice, and its use for the above purpose from this source would surely be an adulteration. Lime-juice is, in this respect, very much in the same class as rum, the citric acid corresponding to the alcohol, and the essential oils and other substances natural to it to the esters and flavouring bodies of rum. To add to lime-juice citric acid not coming from the lime is on a par with adulterating rum with silent spirit from some other source than the sugar-cane. In the case of lime-juice cordial, however, as mentioned above, the matter is complicated by the want of definition of the word "cordial." The old idea was that a cordial is something warming and stimulating, taken, in the words of St. Paul, "for the stomach's sake." Modern views on the subject appear to be different, but not even the most enthusiastic disciple of prohibition could apply these terms to phosphoric or citric acid. Until, therefore, there is some satisfactory decision as to what constitutes a present-day cordial, manufacturers can go on supplying what they please as lime-juice cordial, so long as there is some lime-juice in it.

THE WEST INDIA COMMITTEE.

At a meeting of the Executive, held on August 3rd, Mr. R. Rutherford presiding, the candidates whose names are given below were admitted to membership of The West India Committee, which now has 2,427 members:—

Names.	Proposers and Secondors.
Mr. E. P. Rodolfo (Africa).	Mr. Geo. S. Best.
Mr. J. W. Caracciolo (Trinidad).	Mr. Fred. Williams.
Mr. J. B. Wells (Grenada).	Mr. A. Hamilton Roberts.
Mr. J. A. Branch (Grenada).	Mr. L. Llewellyn Roberts.
Mr. J. T. Murphy (British Honduras).	Mr. George F. Branch.
Mr. William C. Price (British Honduras).	Messrs. Bouldington & Co.
Mr. Charles Gibbons (British Honduras).	Mr. J. Barclay.
Colonel S. H. Godman (Country).	Mr. C. V. C. Horne.
Messrs. Baker & Finneware, Ltd. (Country).	The Hon. G. E. Grahham.
Messrs. King, Sons & Co., Ltd. (Country).	The Hon. Sydney Cuthbert.
Mr. Lionel H. Phillips (British Honduras).	The Hon. G. E. Grahham.
Mr. W. H. W. Westmorland (Jamaica).	The Hon. Sydney Cuthbert.
	Mr. R. Rutherford.
	Mr. W. Gillespie.
	Messrs. Baker & Finneware, Ltd. (Country).
	Mr. F. N. Martinez.
	Mr. R. Rutherford.
	Messrs. King, Sons & Co., Ltd. (Country).
	Mr. F. N. Martinez.
	Mr. R. Rutherford.
	Mr. P. Stanley Woods.
	Mr. Keith M. B. Simon, M.B., L.M.C.C., D.P.H.
	Mr. William Wilson, O.B.E.
	Mr. W. Baggett Gray.

OBITUARY.

By the death of Viscount Northcliffe, which took place on August 14th, Britain has lost a great patriot and the Empire a staunch Imperialist. West Indians will have special cause to sympathise with Lady Northcliffe in her loss, since she is a daughter of the late Mr. Robert Milner, of St. Vincent, in the British West Indies.

MR. COVENTRY ARCHER WOODHOUSE.

We much regret to announce the death of Mr. Coventry Archer Woodhouse, senior partner in Messrs. C. M. & C. Woodhouse, which took place at a nursing home on July 29th, following an operation.

Mr. Woodhouse, who was born in 1848, was actively engaged in the City for over fifty-five years, and had been a partner in Messrs. C. M. & C. Woodhouse since 1871. He was also on the Committee of the London Commercial Sale Rooms, and a prominent member of the Grocers' Company, whose Chair he occupied as Master in 1884. Possessed of a charming personality, Mr. Woodhouse had a very wide circle of friends, by whom he will be keenly missed.

MR. MICHAEL JACKSON BOVELL.

We regret to state that Mr. Michael Jackson Bovell died at Lee, on July 31st, at the age of 73.

A brother of Sir Henry Bovell, the subject of our memoir was the son of the Rev. W. Henry Bovell, B.A. (Oxon.), Rector of St. Thomas', Barbados, whose ancestors settled in that island in the seventeenth century. Mr. Bovell some years ago represented St. Andrew's parish in the House of Assembly, and was Secretary of the Barbados Mutual Life Assurance Society for many years before he came to England in 1920. He was for many years a member of The West India Committee.

SOME NOTES OF INTEREST.

"NEBBER change blue darg for black monkey."

* * *

THE Rt. Hon. Sir John Simon, K.C.V.O., K.C., has again arranged to spend the long vacation in Jamaica.

* * *

THE French duty upon bananas from Jamaica is more than double that imposed upon the same fruit grown in Colombia.

* * *

MRS. HELENA ELIZABETH MOORE, who died at Bexhill on July 29th, was the widow of Mr. Frank H. Moore, of Stockton, Barbados.

* * *

Out of the fifty-six million francs' worth of chocolate exported from Switzerland in 1921, forty-two millions' worth was taken by Great Britain.

* * *

RUM rations were issued to men of the North Wales Territorials when they were flooded out of their tents at Aberystwith during the severe weather last week.

* * *

MEMBERS of The West India Committee, who have recently taken up life membership include Mr. Joseph P. de Verteuil, Mr. Louis A. Hamilton and Hon. R. P. Simmonds.

* * *

THE value of German currency is well illustrated by a German confectioner wrapping up confectionery in 20, 30 and 40 pfennig notes. He finds them cheaper for the purpose than tinfoil!

* * *

It is expected that the Delicias sugar factory in Cuba, the largest in the world, will close its present crop with an out-turn of 142,000 long tons. On July 18th it had already reached 128,000 tons.

* * *

MR. ALFRED CHARLES WOODHOUSE has been admitted into partnership in Messrs. C. M. & C. Woodhouse. The new partner is a son of the firm's late senior partner, a memoir of whom appears on page 370.

* * *

THE RIGHT REV. HERBERT MATHER, who died on July 30th, at the age of 81, was Bishop of Antigua from 1897 to 1904. On returning to England in the latter year he became Assistant Bishop of Hereford.

* * *

THE only country which sent a larger number of cigars to England in 1920 (the latest year for which comparative figures are available) than in 1913 was Jamaica, whose shipments were doubled in this period.

* * *

OF the 1921-22 Mauritius sugar crop, no less than 95.8 per cent. was obtained in the form of first quality plantation white. The average quantity of commercial sugar extracted from the cane was 10.20 per cent.

MR. C. W. O. ROGERS, formerly of the Direct West India Cable Company, has been elected a member of the Council of the Canadian Chamber of Commerce in London, his nomination being seconded by Sir George McLaren Brown.

* * *

THE Governor of Jamaica has appointed the following as members of the Group Committee to represent that Colony for the purposes of the British Empire Exhibition, 1924:—Sir Sydney Olivier, Sir Fielding Clarke, Mr. William Fawcett, Mr. Arthur Doust, Mr. A. H. Miles, and Dr. E. G. L. Goffe.

* * *

DR. J. ALBERT THORNE, a Barbadian resident in New York, has informed the *New York Herald* that he has obtained a concession in Nyassaland, whither, under the auspices of an organisation called the African Colonial Enterprise, he will transport negroes of the New World desirous of settling in Africa.

* * *

A COMMISSION has been appointed by the Government of Newfoundland to consider the question of reforming the Customs Tariff, with a view to its simplification. The opportunity would appear to be a favourable one for establishing closer trade relations between the oldest colony and the oldest group of colonies.

* * *

LITTLECOTE, in Wiltshire, successively the country seat of the Darrells and Pophams, which has recently been the subject of litigation in connection with the Bevan affair, was once the country residence of the son of Brigadier-General Leybourne, Governor of Grenada in 1772, who married Ann, daughter of Edward Popham.

* * *

THE Synod of the Province of the West Indies, consisting of eight bishops representing seven dioceses, is due to meet in New York during this month. It is a sad reflection on the absence of Inter-Colonial steamship facilities, that the most convenient rendezvous for the Right Reverend gentlemen should be outside the Province.

* * *

It would appear that West Indian currency conditions are not as simple as is sometimes claimed. Recently in Barbados, the tender of a British Treasury Note in settlement of an account was not accepted in the Colonial Treasurer's Office, the individual concerned having to go to the Bank and change his "Fisher" for a Colonial Bank note before he was allowed to liquidate his debt.

* * *

WHEN did Ferdinand Paleologus first reach Barbados? Whence did he start? Did he go there after the death of his father at Landulph with his maternal relatives, the Balls of Hadleigh? Can it be shown that the Balls, who were among the early immigrants into Barbados, really went there from Hadleigh? These questions are asked by "W. S. B. H." in *Notes and Queries* of July 8th.

THE Governor has informed the Mayor and Council, states the *Times* Kingston correspondent, that it is impossible to accede to the request that the body of an unknown Jamaican warrior should be obtained for burial at the foot of the war memorial now being completed in Kingston. The graves of Jamaicans on all the battle fronts were marked with the exception of three which cannot be traced.

* * *

It is satisfactory to learn that the delay in the delivery of the registered letter despatched from Jamaica to Barbados, which took 42 days in transit, and to which reference was made in the CIRCULAR of March 30th, was not due to any laxity on the part of British officials. The West India Committee, who investigated the matter, have now ascertained that the delay was caused by an error of a clerk in New York.

* * *

BRITISH GUIANA, Barbados and Trinidad imported between them in 1920, 33,201,719 lbs. of salt fish. The bulk of this came from Newfoundland. In the old days of the "salt fish schooners" from the latter Colony, an excellent vintage of port was obtainable in British Guiana, which had been taken out to Newfoundland by the French fishing fleets which paid yearly visits, and re-exported to the "land of mud and swizzle-sticks."

* * *

THE Port of London Authority announce a further reduction as from July 31st in their dock and warehouse charges, a previous lowering of which was reported in the CIRCULAR of April 27th (page 184). The "percentage additions," or extra charges imposed during the war are now decreased in the case of imported goods from 92½ per cent. to 72½ per cent., the same applying to exported goods, whilst additional rent now becomes 65 per cent. instead of 85 per cent.

* * *

THE report of the United States Tariff Commission, recently published, gives the following costs of sugar production in cents per pound in countries supplying the United States with sugar, the pre-war figures being the average for five years.

	Pre-war.	1916-17.	1917-18.	1918-19.
Cuba	1 700	2 804	3 931	4 104
Domestic beet	4 123	4 357	5 498	7 308
Hawaii	2 898	3 853	5 339	5 186
Louisiana	4 480	4 505	6 471	10 088
Porto Rico	2 828	4 229	4 568	5 802

* * *

"It is not surprising to find that English-owned banks were in operation in the British West Indies prior to the establishment of the first branch of a Canadian bank. The surprising part is that the field has not been more thoroughly exploited." In this way Mr. E. L. Pease sums up a review of the banking situation in the British West Indies in an article in the *Montreal Herald*. He points out that the first point touched by a Canadian bank in the Caribbean Colonies was Nassau in the Bahamas, where the Royal Bank of Canada opened a branch in 1908.

In the last scene of "The Beggars' Opera," by Mr. Gay, the play which when it was originally staged in 1728 was said to have made Gay rich and Rich (its producer) gay, Macheath advises Polly Peachum and Lucy Lockit to ship themselves to the West Indies, where, he tells them, "You'll have a fair chance of getting a husband apiece, or, by good luck, two or three, as you like best." In view of the great success which has attended the production of "The Beggars' Opera," at Hammer-smith, it is talked of reviving the sequel, "Polly," the scene of which is laid in the West Indies.

* * *

RECENT additions to the library of The West India Committee include a well-preserved copy of John Luffman's entertaining letters published in 1789 as "A Brief Account of the Island of Antigua," which throws an interesting light on life in the Leeward Islands at the close of the eighteenth century; "Memoirs of Sir Thomas Fowell Buxton," the Abolitionist, by his son (London, 1849), and "The Life, Voyages, and Exploits of Sir Francis Drake," by John Barrow, F.S.A. (London, 1844). Members of The West India Committee will earn the gratitude of the Executive by overhauling their shelves and presenting West Indian books to the Library.

* * *

WE are requested by Sir Eyre Hutson, K.C.M.G., Governor of British Honduras, to give publicity to a withdrawal by the *Clarion*, in its issue of June 8th, of its previous statements regarding what were described as the wasteful methods of the Public Works Department of that Colony, and in particular the alleged estimated expenditure of \$30,000 for the construction of a temporary bridge over the Belize River. The matter was briefly alluded to in the "Mail Notes" of the CIRCULAR of June 22nd, without, however, in any way endorsing the allegations made by our contemporary, which the CIRCULAR rejoices to learn are admittedly unfounded.

* * *

The value of the trade between the United Kingdom and the British West Indies (including British Guiana, the Bahamas and British Honduras) for the first six months of the present year, as compared with that for the corresponding six months of 1921, was:—

Imports into the United Kingdom from British West Indies:—				
1922	...	...	...	£3,005,364
1921	...	...	...	£5,206,254
Exports of Produce and Manufactures of the United Kingdom to British West Indies:—				
1922	...	...	...	£2,321,200
1921	...	...	...	£2,944,708

TO PICKLE LIMES.—Having cut the limes in quarters, about two-thirds through, take out the seeds, and fill up the fruit with salt. After putting the limes in a deep pan for a few days, place them in a flat dish exposed to the open air and hot sun for three days, keeping them filled with salt. String alternately with green ginger, garlic, and peppers, putting them in a jar in layers between the limes until the jar is full, when the whole should be covered with boiling vinegar.

AUSTRALIAN SUGAR CONTROL.

Sugar has again become a disturbing element in Australian politics, the war control of the Government still continuing, pending the settlement of the question of the renewal of the agreement between the Commonwealth Government and the Queensland planters. The fruit growers of Southern Australia resent the, to them, high Government price of 6d. per pound, which, they contend, prevents them competing with other countries in their jams and preserved fruit trade. The Queensland sugar planters, on the other hand, maintain that a comparatively high price for sugar is essential to the continuance of the industry, by reason of the excessive cost of the compulsory white labour in the cane-fields. The absence of a complete statement of its dealings in sugar by the Government is also a source of general complaint, and notices of votes of censure on the Government by the Country and Labour parties respectively in the Commonwealth Parliament have brought the matter to a head. *The Times* correspondent, however, states that after a meeting of the Government Party, held on the 10th inst., the Ministers expect to be able to defeat both motions.

The Maui Agricultural Company of Hawaii has recently erected an irrigation pump, which delivers 12,000,000 gallons of water per day to a height of 751 feet.

BRITISH GUIANA'S GOVERNOR.

Sir Wilfred Collet's Successor.

Sir Graeme Thomson, K.C.B., has been appointed Governor of British Guiana, in succession to Sir Wilfred Collet, K.C.M.G. Sir Graeme Thomson, who was educated at Winchester and New College, Oxford, entered the Home Civil Service in the Admiralty in 1900. In 1914 he became Director of Transports at the Admiralty; in 1917 he was appointed Director of Transports and Shipping at the Ministry of Shipping. Since 1919 he has been Colonial Secretary of Ceylon.

STRANDING OF H.M.S. "RALEIGH."

West Indian Flagship Aground.

The fatality that overtook H.M.S. *Raleigh*, flagship of the North America and West Indies station, which ran aground at Point Amour, on the Labrador coast, on the 8th August, and is likely to become a total wreck, is the first instance of the loss of an Admiral's ship of the British Navy in a time of peace since the collision between the battleships *Camperdown* and *Victoria* in 1893.



H.M.S. Cruiser "Raleigh."

Vice-Admiral Sir William Pakenham's Flagship on the North America and West Indies Station, which ran aground off the coast of Labrador on Aug. 8th, and is likely to become a total loss; H.M.S. "Raleigh" had been only fully commissioned for just a year.

Admiral Sir William Pakenham, Commander-in-Chief in North American waters, whose flag the *Raleigh* flew, was on board H.M.S. *Calcutta* at the time of the accident to his ship. According to an Admiralty *communiqué*, ten men of the cruiser's crew are presumed to have lost their lives. Costing £1,671,000, with a displacement of 9,750 tons, and carrying a complement of 730, H.M.S. *Raleigh* was begun in 1916, and has only been just a year in full commission. She arrived at Bermuda on August 11th last year. The cruiser, as she appeared on completion, is depicted on this page.

By a coincidence, in 1857, when H.M.S. *Raleigh* of that day, commanded by Admiral Sir Harry Keppel, struck a rock in the China Seas, many of the officers were transferred to the H.M.S. *Calcutta* of that day.

WEST INDIAN LIME INDUSTRY.

Following a meeting of members of The West India Committee interested in Dominica, which was reported in the CIRCULAR of July 20th (page 332), the following letter was addressed to the Under-Secretary of State on July 27th:—

SIR,—I am directed to inform you that a meeting of members of The West India Committee interested in the island of Dominica was held at the Committee Rooms on July 5th, to consider what steps, if any, could be taken to ameliorate the present position of the Presidency, which is regarded as very serious in consequence of the depression in the staple industry of lime cultivation.

2. In this connection they wished me to inform you how much they appreciate the comprehensive reference to the lime industry in the Report of the Hon. Edward Wood, M.P., on his West Indian tour.

3. I enclose a brief account of the meeting above referred to, from which it will be noted that one or two of the statements made by Mr. Wood were criticised as being likely to lead to misconception, and I have been requested by the sole consignees of the Montserrat Company, Ltd., of Birmingham, for Montserrat lime juice, to point out that this juice is consigned solely from Montserrat for the bottling of "Montserrat" Lime Fruit Juice, and for the "Montserrat" Lime Fruit Juice Cordial. I should add, however, that it was realised that his analysis of the situation as a whole, shows ample evidence on the face of it of Mr. Wood's earnest desire to bring about improvement in the economic condition of Dominica.

4. The Dominica proprietors expressed themselves as being gravely concerned by the outlook in view of the severe competition with the lemon products of Sicily with which their staple industry is faced. It was pointed out that stocks of Citrate of Lime to the extent of 24,000 tons, or three years' normal supply, have accumulated in that island, whence they can be exported and dumped on the English market at prices far below the British West Indian cost of production, owing to the debased Italian exchange.

5. It was stated in Mr. Wood's Report that the Board of Trade were being asked to investigate the desirability of Citrate of Lime and Citric Acid manufactured in Italy, being brought within the provisions of the Safeguarding of Industries Act with a view to placing an import duty of 33½ per cent. on Citrate of Lime and Citric Acid not of British origin. My Committee would be glad to learn whether any decision has as yet been arrived at by the Board of Trade in this connection, and I am instructed further to ask whether it is proposed to take any steps towards the restoration of the coastal steamer service round the island, which is regarded as essential for the marketing of produce in the absence of adequate roads in the Presidency.

6. In conclusion, I am to say that the Dominica Proprietors attach considerable importance to the suggestion made by Mr. Wood that steps should be taken for the prevention of the use of chemicals in the manufacture of beverages in imitation of lime juice, and that they have voted with satisfaction that Mr. Wood has been considering with the other Departments of His Majesty's Government whether legislation could be adopted effectively to prevent such adulteration. They venture to think that the need for such legislation is emphasised by a case which was heard at the

(Continued at foot of next column.)

SUGAR MARKET PROSPECTS.**American Firm's Optimism.**

The pessimism which characterised the markets when sugar was quoted \$1.75 f.o.b. in December last has given place to a more hopeful feeling. It is never safe to prophesy about sugar, but if statistics count for anything, the outlook may be regarded as more encouraging than appeared possible in the dark days of last winter.

Thus in their report, dated July 7th, Lamborn & Company, of New York, state that as the heavy consuming period progresses, it is more evident that the strong underlying factors in the market are asserting themselves. The increased consumption this year, together with a partial or gradual replenishment of invisible stocks, has made such heavy inroads into Cuba's production and the surplus carried over from last year, that the statistical position of sugar has changed materially. In fact, Cuba's statistical position is no longer bearish, but, on the other hand, is gradually taking on a decidedly bullish aspect, with prospects for practically no carry over at the end of this year.

Relative to the consumption in the United States for the first six months of 1922, Willett & Gray have published statistics indicating consumption of 2,781,218 tons. That authority stated that it would appear that the country is consuming sugar, up to the present time, at the rate of 5,500,000 tons refined value per year, which is an enormous increase over the distribution figures for last year, which were 4,107,328 tons. They add: "It is hardly likely that such a great rate of consumption will continue, but it is a rather curious fact, if we take the average annual increase of consumption, and which average is based on ninety-nine years of statistics, of 5.216 per cent. and apply same to the nine years since 1913, the last year in which conditions were normal and not influenced either by war conditions or Government control or restrictions, and in which year the consumption was 3,743,139, and without compounding, the consumption thus indicated would be 5,511,000 tons, almost the figure shown by the above calculation."

Stocks at Cuba continue to decrease as exports are still on a very heavy scale, with all indications that they will continue so for the next month at least as there has been considerable sugar purchased by United States refiners, and also by Europe for July shipment.

(Continued from previous column.)

Marylebone Police Court on June 23rd and 27th, where a firm was prosecuted unsuccessfully for selling Lime Juice Cordial containing a considerable proportion of phosphoric acid. A report of the case is appended to this letter and my Committee would be glad to learn whether any satisfactory conclusion has been arrived at.

It is felt that if a standard for Lime Juice could be adopted, it would undoubtedly lead to a larger consumption of the genuine article, besides benefiting the consumer.

I have the honour to be, Sir,
ALGERNON ASPINALL, Secretary.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

The Problem of Weed Control.

Many people think of a tropical virgin forest as a tangled mass of vegetative luxuriance through which the traveller literally has to hack his way with axe and cutlass; but the fact is that except for here and there a fallen log or a pendant liane, one can ride relatively easily through the virgin forests of the tropics over practically bare black soil, even though in the rainy season the ground is inclined to be swampy. It is the dense shade that produces this bareness of the soil, and it is only in secondary forests and abandoned agricultural land that travelling begins to become impossible. This circumstance gives us the safest and best clue in the matter of weed control, and is responsible for all systems of smothering by shade, which is both Nature's and the most economical way of keeping down the herbaceous and woody pests of artificially-planted land. Still another reason why virgin forest is relatively free from weeds is that there are few agencies by means of which they can be distributed; there is no wind, no agricultural labourers or animals going from one place to another, no manure, no interchange of seed. If these agencies were lacking under plantation conditions, a closely planted cacao estate in Grenada, for instance, or an evenly-established coco-nut property in Trinidad might be reasonably free from weeds, for the shade is considerable. That they are not free is largely due to the agencies referred to and the entrance of that pest *par excellence*—grass. Naturally the shade is not so complete under plantation conditions as it is under a full crown cover in the forest, and the presence of weeds is consequently inevitable. In a developed plantation, therefore, labour has to be applied to control weeds mechanically, for it is not possible effectively to control agencies of distribution. Weeds are usually controlled under orchard conditions by cutlassing, or what is known in Spanish countries as machete work, which costs from 25 cents to 75 cents for 25 square yards, and needs to be performed at least several times a year. In suitable localities the land is forked or ploughed; this has the two-fold effect of controlling weeds and increasing the aeration of the soil.

In the orchard in its developing stage, as for example in a coco-nut plantation of trees some two or three years old, smothering crops of an annual leguminous kind, such as *Dolichos kosei* or *Tephrosia purpurea*, can be grown with the double object of weed control and manuring. Again, the land between the trees may be cultivated, and ordinary crops like cassava, bananas, or tannias may be grown for profit.

In both young and old orchard cultivations, grass is the most objectionable and most difficult weed to control, as has already been intimated. It can only be controlled by shallow cultivation,

though it can be kept down satisfactorily under conditions of labour shortage by the continuous circling of the soil around the younger trees for a yard or so from the base. It is important to note that in connection with grass, and possibly certain other weeds, there may be a secretion of toxic substances which have an injurious effect upon the roots of cultivated plants growing below.

Green mulching is probably the best method of manuring in orchard cultivation, and it is in itself a form of weeding as well; furthermore, mulching has a smothering action, and tends to keep down other weeds for a time. Eventually, however, it will be found necessary to resort to the use of the cutlass, except where, as in a properly planted coco-nut plantation, a plough can be employed satisfactorily. For this work, the American prairie type of plough may be recommended. This is a plough with a very broad but much sloping mould-board, and ploughing can be done with this implement at a depth as shallow as two or three inches with a furrow-width of nearly two feet. It is, therefore, a useful implement to employ against grass, especially if a small tractor can be used to drag it. Another useful implement for keeping down weeds in orchard cultivation is the disc plough or cultivator; but the discs must be set at the proper angle so as to get a good cutting effect. The use of these implements assumes, of course, that the land is free from stumps, though the disc plough can be used even if partially rotted stumps still remain in the soil.

HOING COMPARED WITH MECHANICAL TILLAGE.

In arable cultivation in the tropics, the cultivation or implemental method of keeping down weed is in general use. In places like Barbados, where there is abundant labour, the sugar-cane fields are hoed and kept as clean as an English market garden. This, of course, is exceptional. In connection with this matter, however, the possibility of a more general weed-control system is made by experiments by Mr. Geddes in St. Croix. By substituting mechanical tillage for hand hoeing, he has been able to obtain greater yields of sugar-cane at a less cost. By implemental tillage he has shown that he can reduce the labour cost of growing cane from \$45 to \$20 per acre, getting at the same time an increase of five or six tons of cane per acre. He claims that the main benefit of this implemental tillage is the fact that weeds are adequately and economically controlled. Whereas the Barbados system is not generally applicable, there is no reason why many countries should not follow the example set by Mr. Geddes. As a matter of further interest, it may be stated that in regard to weed control the Quack Grass Exterminator Company, of Minneapolis, now sells for £200 a machine which is a kind of soil plough and soil-threshing machine combined; it cuts ribbons of soil and sifts them as it goes along so as to eradicate the underground stems of grasses especially. In most places in the West Indies where cane is grown, a few weedings of the young crop have to suffice. This is one of the reasons for close planting and lengthy periods of ratooning in

such places as Cuba and Trinidad. The close planting especially helps to keep down weeds. In Hawaii and Queensland, where labour is scarce and expensive, weeds in canefields have been successfully controlled by means of paper mulches. After the crop is cut, strips of tarred or asphalted paper (9lb. to every 100 square feet) are placed over the cane stumps. The paper is weighted down by stones, and as soon as the cane starts to grow, the stronger shoots push through the paper in order to reach the light, while the less powerful weeds succumb. Some of the weaker cane shoots do not get through, however, but make tent-like elevations on the paper to show they need assistance, and men go along the rows and make slits to let them through. This is reported to be a much cheaper method of controlling weeds than the ones already described.

THE VALUE OF SPRAYING.

The use of sprays against weeds has been suggested from many sources, but has never proved really practicable owing to the damage such poisonous liquids occasion both to crops and the soil. The most effective spray is probably arsenite of soda in an extract of prickly pear leaf. The prickly pear imparts an adhesive character to the spray which causes it to remain longer on the leaves of the weeds. But these poisonous sprays are dangerous things to use for the reasons mentioned above, and are best confined to garden path weeding, railway tracks, roads, and the like. They are extensively used on tropical railways in the case of which weeding is quite as much a problem as on any agricultural plantation.

An ingenious method of eradicating weeds on a pasture, or, to be more exact, in a lawn, is by an overdose of chemical fertiliser. In Barbados, three and a half ounces of ammonium sulphate in four gallons of water was applied per 100 square feet with remarkable results. The land in question was crowded with duck weed (*Synedrella nodiflora*) and nut grass (*Cyperus rotundus*) before the treatment, but soon afterwards these excrescences had quite disappeared. Their proportion in the control or check lawn remained the same. The improvement was no doubt caused by the greater vigour given to the lawn grass desired (Bahamas grass), and it may also have been due to a toxic effect upon the weeds themselves. In connection with pastures, it is of interest to note that in India pastures have been botanically examined or analysed, and have been found to contain as much as 50 per cent. weed. While the seeding of nutritious grasses is recommended by Indian economic botanists, it is urged that only native grasses should be used, for introduced ones are not likely to be able to compete with the indigenous flora in most localities.

THE RESULTS OF WEEDING.

Weeding is, and always will be, a problem in agriculture. That it pays has been proved on more than one occasion. In Hawaii it has been shown that weeding produces gains as great as fertilising, if not greater. The following figures indicate this fact; in some experiments it was found that where weeds were allowed to grow with the application

of a fertiliser the yield of cane was 21.3 tons per acre; where weeds were controlled and fertiliser added, the yield was 20.87 tons; where weeds were allowed to grow and no fertiliser was applied, the yield was 13.19 tons; whilst where weeds were controlled without fertiliser, the yield was 20.88 tons. Each of these figures is taken from an average of eight to twelve plots for each treatment. Striking as this may be, the great trouble in regard to weeding in the tropics is getting the labour to do it. The only solution of this difficulty is the use of implemental tillage or smothering methods, together with taking every precaution to prevent the entrance of weeds by the agencies referred to earlier in these notes. It is also of value to study the habits of weeds especially, to know those which like nut grass have underground stems. Weeding is, or should be, a community problem, and this is recognised, for instance, in Grenada, where there is a Noxious Weeds Ordinance, making it a punishable offence for planters not to destroy certain weeds specified by the authorities.

MECHANICAL TILLAGE IN JAPAN.

The Acting British Consul-General in Japan states that there are forty-four tractors now in use in Formosa in connection with the sugar industry.

When tractors were first used in Formosa the chauffeurs and engineers sent with them found the work very trying owing to the heat. For this reason and owing to the engineers' lack of experience, both of tractors and agriculture, accidents were frequent, and full benefits were not derived from the machines. Most sugar companies, however, adopted the new system, and a considerable economy in wages and cattle feed has been effected.

Since then, the engineers employed have gradually acquired an understanding of the machines and of agriculture, and the tractors have been utilised to better purpose. Their economic value in the plantations, however, is largely dependent on the cost of petrol, labour and cattle feed. It has been established that they are not directly economical when fuel is expensive and labour cheap.

Figures showing the cost of ploughing by tractor and ox-plough are given in the table below. The tests were carried out in July last at the Government Sugar Experimental Station. In both cases conditions were favourable for ploughing by tractors, and no allowance was made for depreciation or the cost of repairs. The tractors ploughed to a depth of 8.5 to 9.5 inches, and the ox-plough to a depth of 4.25 inches.

	(1) Tractor.	(2) Tractor.	Ox plough.
Cost per "Ko" (2.42 acres)	Yen 10'544	Yen 12'121	Yen 5'600
Area ploughed per diem	3 "ko"	2 "ko"	25 "ko"
	(Yen = 2s. 1d.)		

UNDER normal conditions in the Canary Islands, sufficient water to irrigate an acre of bananas costs from £40 to £70 annually, an amount which is often in excess of the rental value of the land itself.—*The Banana Budget.*

HOME-GROWN BEET SUGAR.

BY VICTOR C. MEYER.

(Continued from page 354 and concluded.)

The sugar content of the root must be extracted at a certain period of its growth, failing which it changes its character and the sugar loses in saccharine value. So that the manufacture of beet sugar entails day and night work for the comparatively short campaign of about 80 to 90 days.

What an opportunity here for the exploitation of those terrorist tactics advocated by some of our modern labourists, and which have already had such a detrimental effect on the trade of the country!

The losses already sustained by Home-Grown Sugar are sufficient to warrant its extinction as a commercial undertaking, and there is little prospect of any improvement in the future. The magnanimous concession of total exemption of the sugar duty—about 2½d. on every pound of sugar—is only perverting the sound principle of protection to a fallacious subsidy to a fatuous enterprise, and commits the Government to further extravagance by throwing good money after bad. The Government, while getting no interest on their own capital invested, have guaranteed 5 per cent. interest on the public capital (£250,000) for 10 years, conditional on the concern continuing to produce sugar, so that their bolstering up of an effete and ineffectual industry is only serving to continue their own pecuniary responsibility. The sugar beet is, at the best, but a highly developed vegetation, and its saccharine strength is largely due to chemical skill and scientific observation, coupled with economic conditions, which are wanting at home.

The sugar cane, on the other hand, is a more natural product, and we have Dependencies in all parts of the world—the West Indies, Natal, Mauritius, Australia, and British India—well fitted to supply all our needs, did we accord to our overseas possessions not only a fair measure of preference, but that sympathetic interest which has been so long denied them.

Instead of fostering impossible industries at home which cannot have the slightest commercial importance, let our Government but ensure to our cane growing Colonies a security of trade and stability of policy and we need never lack an adequate supply of sugar at a reasonable price.

Germany never had the proper colonising spirit, and where she did obtain a footing overseas her rule was not conducive to the best commercial utilisation of the natives or the nature of the land. She had to fall back on the scientific and specialised skill which developed to such a high degree her internal agriculture. But with our imperial resources we have no need to follow the artificial methods of Germany as regards her sugar culture. The generous act of God has provided the world with tropical lands bursting, under man's good guidance, to produce sugar in abundance, while the patriotic actions of pioneers have annexed many of these prolific lands to the British Crown. Despite common prejudice to the contrary, tropical cane sugar can be produced at less cost than tem-

perate beet, and the sugar cane is native to many of our possessions. Lacking the encouragement so marked in the cases of other Powers having sugar-producing Dependencies, the comparative indifference and disregard of the Home Government towards our Imperial sugar sources and the development of their rich natural products caused a marked decline in the West Indian crops.

Forty years ago British Guiana and our West Indian islands produced considerably more sugar than they do to-day; in fact, at one time the Jamaican crop was double the present figure. Twenty years ago, in the dark days of the Foreign Bounties, when the sugar trade of our West Indian Colonies was in danger of disappearing, and the inhabitants were writhing under a deep sense of wrong, they were forced to endeavour to enter into reciprocity treaties and commercial conventions with the United States of America. Jamaica, more particularly, became largely tied by economic bonds to the United States. The fond hope, engendered by the terms of the Brussels Convention, of an Imperial interest and equality of opportunity was soon dissipated by the selfish and parochial policy of Mr. Asquith's Government, with its distorted and spurious interpretation of Free Trade, and the old subject of annexation to her near neighbour was again revived. Needless to say, many schemes of necessary improvement were deferred, and many undertakings of feasible expansion were curbed, while the trade with America increased by leaps and bounds. The war, however, opened the eyes of many to the fallacious and circumscribed policy of keeping an "open door" to a horde of unscrupulous enemies, and certain measures of sane preference were adopted.

The continuance of a stable fiscal policy and the strengthening of Imperial ties, in opposition to the apathy and neglect of past years, should tend to improved sugar conditions, both at home and abroad. The expansion and amelioration of our Colonial resources would undoubtedly result in the prosperity of the British producer and the advantage of the Home consumer.

THE "THREE B's."

In view of the demand in many of the West Indian Colonies for a measure of Representative Government, and Mr. Wood's recommendations thereon in his recent Report, it will be of interest to set forth particulars of the three Colonies, often grouped together in this connection as "the three B's," whose constitutions, dating from the first half of the seventeenth century, already possess representative institutions.

Date of Constitution.	Colony.	Population.	No. of Elected Members.	No. of Electors.	Life of Parliament.
1620	Hermuda	22,000	36 (paid)	1,413	5 years.
1625	Barbados	156,000	24 (unpaid)	2,308	1 year.
1647	Bahamas	52,000	29 (unpaid)	14,263	7 years.

In each Colony the Governor and Upper House are appointed by the Crown, the Lower House is entirely elective and possesses full financial control.

"B.M.J." ON THE WOOD REPORT.

The West Indian Medical Service.

In an article on the Medical Service in the West Indies, the *British Medical Journal*, in a supplement dated July 15th, states that the conditions of the medical service in the West Indies, and more particularly in the Leeward and Windward Islands, have caused the Dominion Committee of the British Medical Association increasing anxiety over a considerable period. The main grievances which the association has had to combat have been three: (1) Total inadequacy of pay aggravated by the enforcement of official tariffs for private fees; (2) the absence of any recognised system of promotion and facilities for leave or study; and (3) the imposition of new and onerous duties without additional remuneration. Effective action, says our contemporary, has invariably been hindered by the delay incident on the reference of special points to the Colonial Governments and by the fact that the duties and emoluments of any given post are subject to arbitrary variation by the Governor, whilst the Colonial Office itself, in advertising vacancies, is unable to supply candidates with adequate information as to the conditions of service.

In the circumstances, the *British Medical Journal* welcomes Mr. Edward Wood's report, which "shows an appreciation of local conditions at once shrewd and sympathetic," and it adds that "whilst the recommendations for immediate action fall short in several respects of the fair claims of the officers concerned, the ultimate goal—namely, the unification of the West Indian medical service—is throughout kept well in sight. Moreover, the recommendations put forward are clearly in Mr. Wood's view not only urgent but immediately practicable. And this, having regard to the acute economic difficulties of the moment, is in itself no small advantage."

After summarising the section of the report dealing with medical affairs the *British Medical Journal* says:—

These recommendations, if adopted, will go far to remove the most pressing grievances of the service in the Windward and Leeward Islands, and accordingly the Committee has expressed its gratitude to Mr. Wood for the trouble he has taken in investigating the matters contained in his report, and its general satisfaction with the recommendations he has put forward to the Secretary of State. Certain points, however, are not satisfactory. In the first place it is to be regretted that the special difficulties of other services besides those of the Leeward and Windward Islands have not received closer consideration. For instance, Mr. Wood was unable to see the deputation from the medical officers of Jamaica which desired to submit certain very definite grievances for his consideration. Moreover, whilst the £400 initial salary is the amount actually asked for by the officers concerned, the maximum of £600 has long been regarded as essential and the indefinite postponing of its introduction is unfortunate. Then again, the general maximum transport allowance of £60 a year represents no advance in many cases where the existing allowance is demon-

strably inadequate. These points will be the subject of strong representations to the Colonial Office.

It must not be forgotten in considering the advance actually achieved that Mr. Wood's recommendations are as yet recommendations only. Their effect will depend in part upon the reception accorded to them by the Colonial Office and in part on the local Governments. It is for the West Indian Branches to continue to exert such pressure as they can locally, whilst the Dominions Committee brings all possible pressure to bear on the Colonial Office. In this connection the formation of a sound and well-formed parliamentary opinion is of no small importance, and the thanks of the Association are due to Dr. F. E. Fremantle, M.P., for the able manner in which he directed attention, in the discussion on the Colonial Office vote, to the responsibility of the Colonial Office in connection with the public health problems of the Colonies, and to the claims of the Overseas Medical Services.

GERMANY'S CACAO CONSUMPTION.

The German journal *Wirtschaft und Statistik*, writes "W. J." in the *Tea and Coffee Trade Journal*, quotes statistics of the world's consumption of cacao, and sets out features indicating Germany's relative position thereto, comparing her consumption of 100,000 tons of cacao in 1921 with America's 124,416 tons and Britain's 47,164 tons.

Then, ascribing the reduced consumption in other countries compared with 1918 to the discouraging state of money exchange, the journal says it is not to be wondered at that the American people consumed such large quantities of cacao in 1920 and 1921 when it is remembered that besides the improved living standard the consumption of alcoholic liquors was prohibited. On the other hand, Germany, even with her greatly lowered standard of living, imported 100,000 tons in 1921, the limited export of which in manufactured cocoa was easily balanced by the greater import of manufactured cocoa.

Importations in immediately preceding years were small—45,059 tons in 1920, 11,700 tons in 1919, and none at all in 1918—consequently the exhausted stocks had to be replenished. Notwithstanding this, the rise in consumption is astonishing. The journal says that the whole German system is living above its means, which may easily end in a crisis. It quotes a communiqué by the union of German chocolate manufacturers on the absence of sugar, to the effect that cocoa and chocolate possess high nourishing value and claiming that "therefore cocoa as a people's food is of great importance." But the journal, which is none too sympathetic with the chocolate business, says that too much sugar is finding its way into the chocolate and alcoholic liquor industries.

MR. PETER NOBLE, A.M.I.C.E., Colonial Engineer and Surveyor-General of Dominica since 1912, has been appointed one of the Government engineers in Palestine. It will be recalled that previous to his appointment in Dominica, Mr. Noble was District Engineer in Demerara, acting in addition as Chief Draughtsman and as Assistant Colonial Civil Engineer.

CACAO DISEASES.

How to Combat Them.

A valuable paper by Mr. William Nowell on Cacao Diseases in Trinidad has been published by the Agricultural Society of Trinidad and Tobago. In this Mr. Nowell points out that the fungus diseases of cacao fall into two classes:—

(1) Debility diseases which depend on a lack of vigour in the trees;

(2) Diseases which can attack trees without regard to vigour, but which can only develop when the external conditions favour the fungus by which they are caused.

Both types can be met by purely agricultural methods, and once their nature has been established it is rather to the cacao agronomist than to the pathologist that the grower should look for advice.

In countries with a highly developed agriculture, and especially where mechanical aids are so readily adopted as they are in the United States of America, the practice of spraying fruit trees at frequent intervals has become a matter of routine. Agriculture in Trinidad, especially on cacao estates, is not highly developed, and in the adoption of mechanical appliances there are difficulties in the shape of untrained labour, in the absence of repair facilities, in poor means of access to cultivations, and not least, in the rapid deterioration of rubber hose. Spraying, to be of value, must be systematic, frequent, and indefinitely repeated. Bordeaux mixture is strictly preventative of infection and not a cure.

Says Mr. Nowell: "I see no present prospect of the adoption of spraying as a regular practice on Trinidad cacao estates. As a matter of fact we do not spray for pod-rot at River Estate, and I have not so far found it advisable to recommend it. While spraying is the most direct and the most immediately applicable measure, there are others which go nearer to the root of the matter and have, in view of their application to Trinidad, the great advantage of depending directly upon agricultural skill and not involving either the practice of a new art or the provision of new machinery.

"The fungus, as I have said, belongs to a group that is particularly dependent on humidity. Its commonest method of reproduction is one in which its spores are liberated into and swim in a film of water. It is true that it is able to modify this procedure and produce conidia that germinate in the more ordinary way, but it is not by any means adapted for activity under even moderately dry conditions. This is its weak side and it can be attacked on it. The reason it has developed as a pest of cacao is because the conditions maintained in a cacao cultivation are, during the wet season at any rate, such as suit its requirements. Its control by cultural measures resolves itself into the question how far we may modify these conditions in the direction of dryness without affecting the general health of the tree. The degree of humidity in a cacao field is governed by the weather, by the situation as regards the contour of the ground and the nearness of hills and forests, by the condition of

the soil in respect to natural and artificial drainage, by the extent of pruning and by the amount of shade provided. Three of these factors are under our control, drainage, pruning, and shade. There ought to be no need, though I cannot say there is none, to insist upon the importance of drainage, as much on general grounds as for the special purpose we are considering. But it is mainly by means of shade trees, and to a lesser degree by pruning, that the conditions considered suitable to cacao are provided. If we think the matter out, we can see that the growing of immortelles, though it may be in many cases the best means available, is a somewhat clumsy expedient. If shade trees are the right size when the field, let us say, is fifteen years old, they have grown too big long before it is thirty. But their reduction in size or number is an awkward business, entailing very considerable risk of damage to the trees beneath them. It is easier to let them alone and so we get the condition which is so common, of shade trees far more numerous than is desirable for their size, or far larger than is necessary for their number. It is in such fields that pod-rot, other things being equal, is most severely prevalent. It is interesting to know on the authority of a Ceylon planter who recently paid us a visit, how in that island the difficulty just referred to is avoided. They replace their shade trees, a different species of immortal from ours, with very large cuttings every ten years or so. It is notable that in Grenada, where most fields are without shade, pod-rot is very much less prevalent than in Trinidad."

With regard to the shade problem, it is of interest to note that Mr. Nowell is an advocate of reducing immortelles to a minimum where they cannot be dispensed with altogether and to supply their function by means of marginal wind-breaks where needed, and by the use of mulch and pen manure in the soil, to prune the trees to enable air to circulate freely and to attend to drainage.

BRAZIL'S CACAO TRADE.

The tendency of the Brazil cacao industry is to expand, as will be noted from the following table showing the exports for the past six years and the first nine months of 1921:—

		Kilogs.			
1915	...	44,879,974	1918	...	41,865,472
1916	...	43,720,021	1919	...	52,584,308
1917	...	55,621,839	1920	...	54,418,609
		1921 (9 months)	...	...	35,543,958

The destinations of these exports since the beginning of 1919 have been as follows:—

	1919.	1920.	1921 (9 months).
United States	33,577,844	25,327,956	18,038,027
France	15,575,160	8,362,259	2,361,929
Great Britain	3,565,773	823,487	161,181
Argentina	1,206,705	2,279,731	1,297,600
Holland	2,130,346	5,303,305	2,589,080
Germany	151,662	6,149,886	7,893,100

The large falling off in exports to the United Kingdom since the British Preferential Tariff came into force (in 1920) is significant.

YEAST FROM MOLASSES.

One of the recent uses to which molasses has been applied is that of the manufacture of compressed yeast, either for the purpose of bread making or as a food for cattle, or even man, and we have received from Dr. Henry Arnstein, 193, Roosevelt Boulevard, Philadelphia, a copy of an article which he has written on the subject, which appeared in the *Louisiana Planter*, early in the present year.

In the manufacture of this product, as described by Dr. Arnstein, the molasses is diluted to about 10 deg. Balling (Brix.), and inverted by means of organic or inorganic acids. The diluted molasses is then filtered through filter tanks by gravity or mixed with diatomaceous earth (Kieselgur), and filtered through filter presses. Prior to the filtration, the diluted acid may, or may not, be inoculated with lactic acid bacteria. In the former case, the yeast produced will be lighter in colour and have better keeping properties than in the latter.

The clarified and acidified wort flows into large fermenting vessels, in which is a pure culture yeast which has been acclimatised to the conditions and the nature of the materials used. To produce this seed yeast, the following method is adopted:

In the first place, a pure yeast is prepared in the biological laboratory, which is then diluted with sterilised mashe until only one yeast cell* is present in one droplet. This droplet is then inoculated with a gelatine or agar-agar medium, and from the colony of yeast cells thus formed members are picked out with a sterilised platinum needle and transferred to a small glass vessel, and when two to five litres of this pure culture yeast is obtained, it is introduced into a pure culture apparatus having a capacity of from 20 to 200 lbs. of dry yeast. With the dry yeast thus produced, a tank approximately 10 per cent. to 25 per cent. of the capacity of the large fermenting tanks is stocked with it, and in this tank a wort of a higher sugar content and greater acidity is fermented.

The main fermenting tanks are large wooden, iron or copper cylindrical tanks, with either flat or conical bottoms. They are supplied with a series of cooling coils for the purpose of reducing and controlling the temperature produced by the fermentation. The amount of seed yeast used depends largely on climatic conditions, and whether a cool or hot fermentation is carried out. The larger the quantity of yeast the quicker the fermentation, and the higher the temperature produced.

To help and shorten the fermentation, large quantities of purified and cooled air are used, Dr. Arnstein stating that at least $\frac{2}{3}$ cubic feet of air per minute is required for every pound of yeast produced. Fermentation should be completed in from eight to sixteen hours. The shorter the fermentation period the stronger the yeast, and the longer the fermentation, the greater the yield. The

chance of infection by other organisms is greater in the case of long fermentations than in short, and quality of the yeast is always poorer.

After fermentation has been completed the fermented wort containing the yeast in suspension is separated from it by centrifugal force. The centrifugal machine used works on the same principle as a cream separator. It has two outlets, the upper one discharging the wort which has been freed from the yeast, while the other discharges the yeast in a thick, creamy condition. The latter is collected in wooden, copper, or steel vessels and cooled to 40 deg. or 45 deg. F. It is then pressed dry in filter presses of the frame or recess type. Yeast of good quality will take about an hour to obtain a dry cake and be quite brittle. The pressed yeast cakes are then transferred to a mixer, where they are mixed with water, and sometimes with starch, and in which the proper consistency is produced for treatment in the final machines. In this the yeast is forced through a cone-shaped screw, being cut into desired lengths in the process, giving 1 lb., $\frac{1}{2}$ lb., 1 oz., or $\frac{1}{2}$ oz. cakes. These are wrapped in waxed paper, refrigerated, and are then ready for the trade.

A certain amount of alcohol is formed in the course of the fermentation, and Dr. Arnstein states that every gallon of molasses will yield 4 $\frac{1}{2}$ lbs. of compressed yeast and .325 gallon of absolute alcohol. The yields of yeast and alcohol can be controlled as desired. The wort from which the yeast has been separated contains from 0.75 to 1.5 per cent. of alcohol.

The composition of the dried yeast is:—	
Protein (95 per cent. digestible) ...	58.43%
Water	8.55%
Mineral matter	6.47%
Fats	2.90%
Crude Fibre	1.54%
Non-nitrogenous matter (100 per cent. digestible)	27.11%
	100.00%

In the manufacture of compressed yeast from molasses, in addition to the sugar, nitrogenous food is also required to increase the yield and quality of the yeast. According, therefore, to the nitrogen content of the molasses, 10 per cent to 20 per cent. of grain, ammonium sulphate, ammonium phosphate, or other nitrogenous matter, has to be added to it.

Dr. Arnstein states that there is sufficient evidence to show that compressed yeast as food has been successfully employed in acne, anthrax, beriberi, bronchitis, cancer, cervicitis, cholera, diabetes, diphtheria, dysentery, erosion and ulceration of the cervix, enteritis folliculitis, furunculosis, gonorrhoea, impetigo, influenza, leucorrhoea, measles, osteomyelitis, panaritium, pellagra, purpura, scarlatina, acourbut (sic), septic condition of the genito urinary organs, sycosis, tonsillitis, tuberculosis, typhoid, urticaria vaginitis, and variola. Housemaid's knee does not, apparently, yield to the treatment, but, on the other hand, compressed yeast is stated to be used successfully in the manufacture of steel ropes.

*The diameter of a yeast cell is from $\frac{1}{1000}$ th to $\frac{1}{2000}$ th of an inch.—Ed.

JOTTINGS FROM MY NOTEBOOK.

BY AGRONOMIST.

Nicko's states that a hen laying 150 eggs per year and weighing 5lbs. will eat approximately 25 times her own weight of food and lay nearly four times her weight in eggs in that period.

* * *

It is reported that petroleum has been discovered in the Lake Albert region of Africa, under the lake and surrounding regions, including the Belgian Congo possessions on the borders of the lake.

* * *

For the year ending June 30th, 1921, the Philippines produced 502,237 tons of sugar, 24,180 tons of cake sugar (panochas), 369,245 tons of copra, 5,955,000 gallons of coconut oil, 889 tons of cacao, and 1,062 tons of coffee.

* * *

The great progress made in the cultivation and canning of pineapples in Hawaii is mainly due to (1) the use of iron sulphate for spraying, to make up for the lack of iron in the soil, (2) the perfecting of a mechanical coring and peeling machine, (3) the invention of a slicer, and (4) the development of an apparatus which retrieves the pineapple left in the skin after the first rough peeling.

* * *

A scheme, which the editor of the *Sugar Central and Planters' News* of the Philippines, describes as "a Utopian dream," has been formulated in those islands. The prospectus proposes the formation of a corporation with a capital of 50,000,000 Philippine dollars for the purpose of cultivating 1,400,000 hectares of canes on Mindanao and the establishment of a bank. The above area would mean at least 6,000,000 tons of sugar!

* * *

In Australia, out of a total area of nearly 2,000,000,000 acres, only 13,000,000 acres were in cultivation in 1920-21. Out of the population of 5,482,000, 42 per cent. live in the six principal cities. The area devoted to wheat was 9,000,000 acres, to oats 1,000,000 acres, and to sugar cane 115,000 acres. There appears to be no probability of a marked increase in areas under cultivation in the near future, in spite of efforts of the Commonwealth and State Governments.

* * *

A writer on agriculture in the *Sydney Mail* says that when a bee colony gets low in stores, the deficiency must be made up, either from other stores, or from an artificial supply, and recommends a sugar syrup for the purpose. To prepare this, two parts by weight, of white sugar (not brown, which causes dysentery) are stirred into one part of boiling water until the syrup is clear. This should be fed to the bees at a lukewarm temperature, inside the hive, and at dusk, so as to avoid excitement and probable robbing. For a normal colony about half a pint every 24 hours until the stores are built up, will be found sufficient.

* * *

Enquiries have been made in the United States

as to the use of fertilisers in growing cotton. The replies included 13,000 cotton farms, and *The American Fertiliser* says that from the standpoint of actually finding out what fertilisers will do under unfavourable circumstances, the report is a complete one, and that the data prove beyond all doubt that it pays to use fertilisers in the cotton industry and, further, that those farmers who had had the courage of their convictions and used fertilisers had been rewarded. No less than 80 per cent. of the replies were to the effect also that unfertilised cotton deteriorated more rapidly than the fertilised.

* * *

Horticus, in "Memos from My Notebook," in Nicko's, discusses the question of the relation of the guava to the fruit fly. This tree, he says, although it is credited with harcouring the fly, has the merit of bearing a fruit which for jelly making purposes has few equals. As regards its cultivation in Australia, he considers, with a bit of humouring, the guava can be made to bear its fruit when the fly is least active. For thirty or forty years, he goes on to say, the guava has been treated as an outlaw of the fruit family to be killed at sight, and advocates attention being paid to it in the way of cultivation and selection of varieties as "there is something in it."

* * *

The May, 1882, number of the *Hawaiian Planters' Monthly* tells how the Lahaina cane came to Hawaii. It appears that in 1854 Captain Edwards, of the whaler, *George Washington*, took on board at Tahiti two varieties of cane, subsequently known as the "Cuban" and "Lahaina," for a planter at Kauai. The ship calling at Lahaina, the U.S. consul there annexed the canes, and planted them in his garden at Lahaina. Two or three years later cuttings of the "Cuban" cane were obtained from this source, and this is the cane now known as Kenikeni, a corruption of "Kinikini," meaning "very many." When sugar making commenced in Lahaina, the "Cuban," or Keni-keni cane was the one grown, but the "Lahaina," which is really identical with the Bourbon, subsequently displaced it.

* * *

There are three descriptions of slag phosphate now on the market. These are, the original slag phosphate, derived from the Bessemer steel process, and the two varieties of "open-hearth" phosphates. The first of these contains phosphoric acid equivalent to about 40 per cent. of tricalcium phosphate, of which 85 per cent. is soluble in a 2 per cent. solution of citric acid. The two "open-hearth" phosphates contain about equal proportions of phosphoric acid, equal to anything between 15 per cent. and 35 per cent. of tricalcium phosphate, but while the proportion of citric acid soluble phosphate in the one is about the same as in the Bessemer phosphate, in the other it is much less. Judging from an article by Sir E. J. Russell in the *Journal* of the Ministry of Agriculture, it is not yet clear that there is any difference in field results between slags of 60 per cent. to 80 per cent. solubility, but it does appear that the phosphoric acid in slag phosphates of considerably lower solubility is less effective.

FAIRRIE TALES.

Direct Consumption Sugar Vindicated.

In December last and again in May, the CIRCULAR protested against damaging and untrue statements that were being made by Mr. Geoffrey Fairrie, of the firm of Fairrie & Co., Ltd., sugar refiners, of Liverpool, regarding direct consumption cane sugars. In the course of one of his exordiums he spoke of "certain yellow or brown sugars made in the tropics and sold here under various names, but collectively known as direct consumption sugars," alleging that a scientific examination of high-grade direct consumption sugars which had "recently been made" showed that the sugar, when dissolved, yielded a "muddy sediment," etc., that it was "obviously unclean," and so on. Asked to supply sealed samples of the sugars reported upon, or to furnish the name of his eminent authority, Mr. Fairrie ignored the request, and eventually, when asked whether his remarks applied to West Indian crystallised and muscovado grocery sugars, he stated that "he did not have sugars from any particular source in his mind." To this the obvious retort was that he must have been referring to sugars from all sources (including the West Indies) — or none.

Meanwhile it had become evident from similarity of wording that his "eminent authority" was the anonymous author of a "Report on the Direct Consumption of Raw Sugar," published by a firm of refiners in 1918, when a proposal was made to meet the sugar shortage by putting into direct consumption raw refining sugars. For the purpose of his analysis, the author admittedly took his sample from a "well-known refinery."

It was thus made clear that Mr. Fairrie was applying to direct consumption cane sugar remarks made *four years before* by an anonymous pamphleteer regard raw refining sugars. As to the ethics of this the reader can be left to judge. Eventually an interview took place between the Secretary of The West India Committee and Mr. Fairrie, at which this Liverpool refiner undertook to send a letter to the newspapers stating that in his earlier remarks he was not referring to any sugars other than refining raws. That was on May 23rd last, but though two months have elapsed, he has not yet redeemed his pledge. First his excuse was pressure of work (June 26th), then it was that he had been expecting to deliver a lecture, and again that he had only recently completed a list of editors to whom his letter was to be sent (June 28th). Finally another interview was suggested, and Mr. Fairrie said he hoped to be in town in a week or so (July 4th). Nothing more having been heard of him for over a month,* he must not be surprised if judgment regarding his action goes by default, whilst his contemptible remark that the process of raw sugar manufacturing was carried out by natives, whose habits were not altogether unobjectionable

nor characterised by scrupulous cleanliness, which was obviously lifted from the eminent authority or anonymous pamphleteer, may be dismissed as characteristic of the misstatements of Mr. Fairrie on the subject of direct consumption sugars.

Meanwhile the *International Sugar Journal* had taken up Mr. Fairrie's challenge, and had demonstrated that his damaging statements were absolutely unfounded. Our contemporary put the matter to the test, submitting samples of Demerara, Jamaica, and Trinidad crystals to Messrs. J. J. Eastick & Co. for analysis. The results, which are published in the July issue of the *Journal*, make it clear that the total insoluble matter found in the West Indian yellow crystals was really very small, varying between 10 and 48 mgrms., or 0.01 and 0.05 per cent., "making it difficult to understand how even a partisan like Mr. Fairrie could term such an amount a 'muddy sediment.' A South African plantation white which was recently examined yielded on solution in water a liquor that was practically clear and colourless, and in appearance closely resembled the best refined."

The *Journal* adds: "In the manufacture of genuine yellow crystals it is well known that considerable care is taken to eliminate insoluble impurities from the syrup before boiling to grain; while in the case of plantation whites a necessary condition is that the syrup going into the pan should be quite clear. In view of this, one would expect the insoluble matter in these direct consumption sugars to be less than in raws, in the manufacture of which no special effort is taken to eliminate the impurity in question."

The case for the refiners will not be helped by the broadcasting of such gross inaccuracies as those to which attention has been called.

COLONIAL CIVIL SERVICE.

The following appointments, transfers and promotions, affecting the West Indies, have recently been made to the Colonial Civil Service by the Secretary of State:—

Mr. T. D. H. Bruce (Crown Solicitor, Fiji), Resident Magistrate, Jamaica.

Born in 1885, Mr. Bruce is a graduate of Brasenose College, Oxford. After being admitted a Solicitor in 1911, he was two years later appointed Crown Solicitor of Fiji. Since returning from active service in 1919, he has acted as Deputy Commissioner of the Western Pacific and as Resident Commissioner of the Gilbert and Ellice Islands.

Mr. E. Edginton (Island Postmaster, Cyprus), Postmaster General, Trinidad.

Lieut. W. B. Heaton, Assistant Inspector of Mines, Trinidad.

Mr. R. G. M. Fell, Inspector of Ways and Works, Trinidad Railway, Trinidad.

Mr. R. C. Greenway, Assistant Science Master, Queen's College, Trinidad.

Mr. R. G. Wright-Nooth, Superintendent, Public Works Department, Antigua, Leeward Islands.

Mr. R. Bonello, M.D., Medical Officer, Windward Islands

*Since the above article was set up, Mr. Fairrie has written to the Secretary of The West India Committee, again suggesting an interview.

THE CAMEROONS.

An Opportunity for Tropical Planters.

The ex-enemy properties situated in the British sphere of the Cameroons are being offered for sale in London on October 11th and 12th of this year.

The British sphere of the former German Protectorate of Cameroons, which is to be administered by the Government of Nigeria under mandate from the League of Nations, consists of some 83,750 square miles, carrying a population estimated at 644,000. It is a narrow strip of land forming a wedge between the thickly populated Protectorate of Nigeria on the west and north, the French sphere of the mandated territory on the east, and the Atlantic Ocean forming the southern boundary.

Prior to 1914 the German Imperial policy in the Cameroons was to create within a few years a tropical possession to surpass in importance the British and Dutch East and West Indian Colonies, which have only attained their present condition of prosperity after centuries of experience. At the outbreak of war Germany had gone far towards the realisation of that ambition, and in the thickly-populated districts of the Cameroons trade in such indigenous products as palm oil, kernels and ground nuts expanded during recent years in the same way as it has done in the neighbouring French and British Protectorates; but this natural development was not considered sufficient, and the sparsity of population, coupled with good climate and exceptional fertility of soil in the Victoria Division, led the German Government to select that region for the establishment of organised plantations. European occupation of the land for planting purposes was encouraged. Government undertook the supply of labour, a special Customs tariff was granted to planting companies, and experts in tropical agriculture were appointed to give advice to individual planters and commercial firms who took up land.

It will be remembered that Professor Preuss, who was early appointed Chief Agricultural Adviser, and was also responsible for the laying out of the Victoria Botanical Gardens, spent some time in the West Indies studying planting systems and the political economy of those islands. In the island of Trinidad he was fortunate in having the advice and assistance of the late John Hinchley Hart, who did so much to advance our knowledge of tropical agriculture. The work of Professor Preuss and other German scientists in the development of the agricultural resources of the Cameroons followed very closely West Indian methods, and as one result the produce now exported from this former German Protectorate is, as regards quality, far in advance of the produce exported from other parts of West Africa. The German policy of European ownership of land had the further beneficial result of

(Concluded at foot of next column.)

ANOTHER FREAK PALM.

Coco-nut Tree's Strange Vitality.

The CIRCULAR is indebted to Mr. Robert S. Reid for a photograph of a freak coco-nut still more remarkable than that depicted in its issue of June 22nd. It is reproduced on this page. Mr. Reid, whose veracity is beyond question, states that the broken palm trunk shown lying on the bank of the King's Bay River, in Tobago, was part of a coco-nut palm growing on the opposite bank some 40 feet away, which was undermined by a flood and fell across the stream. Being an obstruction, it had to be cut as shown in the illustration, and the lower part of the trunk cleared away. The bud and branches kept on growing, minus the roots, and



A Freak Coco-nut Palm in Tobago.

This rootless trunk of a coco-nut palm [shows remarkable vitality, and has given birth to a new tree.

turned upwards as seen in the picture. Mr. Reid writes:—

“It is rather a marvel to see a coco-nut growing in this fashion, as one never hears of a smashed coco-nut tree growing a fresh ‘head,’ even when the roots are undisturbed in the ground.”

(Continued from the preceding column.)

teaching the African by example the advantages of systematic planting and intensive cultivation.

The cultivated plantation products to which chief attention has been directed are cacao, hevea rubber, cola, oil palms, coffee and tobacco. The banana industry, which was specialised in at Tiko, near Victoria, attracted the Germans, and the famous raider *Moctze* was one of two boats especially built for the fruit trade. The plantations are well equipped with European bungalows, labourers' houses, hospitals and stores, also plant to deal with the various crops grown and narrow-gauge railways for transport. Electric power machinery and light is installed on several of the properties.

WEST INDIAN MAIL NOTES.

Sale of Barbados Estates.

July has followed June in the matter of favourable weather, the effects of which on the young crops is very marked. Cane-supplying has been carried out, says the *Agricultural Reporter*, at a minimum cost, whilst it is difficult in many places to tell second from first ratoons.—It is understood that Bush Hall and Kew estates have been sold to a syndicate.—At a meeting of the Chamber of Commerce on July 6, Mr. H. G. B. Austin, M.C.P., presiding, it was decided to write to the President of the Associated Chambers, stating that the impression left on their minds from the statement made by Mr. Wood was that the preferential undertaking was given for ten years, and that if it was taken away, the question arose whether Barbados ought to continue her preference to the Mother Country.—Mr. H. L. Johnson, Parochial Treasurer of St. Michael, successfully resisted an action brought before the Chief Justice by the Vestry to recover \$793, alleged to be improperly paid out.—Dr. E. Walter Roberts has been appointed Senior Resident Surgeon of the General Hospital in the place of Dr. E. B. Skeete, who has resigned. Dr. C. M. Austin has been appointed Junior Resident Surgeon.—The death took place on June 23rd of Mr. C. F. Hoad, Second Officer of Customs. Mr. Hoad entered the Civil Service in 1886.

British Guiana's Irrigation Problem.

A Committee of the Council of the Chamber of Commerce have reported against the present system of storing oil in Water Street, Georgetown, owing to the risk of fire, recommending that the oil warehouses there be controlled by a Board consisting of Government nominees and merchants interested, at the same time approving the site selected by the Government in Kingston.—In a letter to the *Argosy* of July 2nd, Rev. H. R. O. Robertson comments strongly on the Governor's attitude regarding improved irrigation and drainage. Meanwhile an agitation is on foot to have His Excellency's term of office extended in order that he may deal with this very question.—There has been a famine causing considerable distress among the Indians of the Moruka district, due to abnormal weather conditions and the failure of the cassava crops.—Dr. E. H. Gewand, Medical Superintendent of the Leper Asylum, Mahaica, has retired from the Medical Service of the Colony, with the intention, it is understood, of engaging in private practice.—Dr. F. L. Stevens, who organised the College of Agriculture at Porto Rico, is at present in the Colony with the object of obtaining specimens of fungi and parasitical plants for the University of Illinois.—Dissatisfied with the conduct of racing in the Colony, Dr. E. S. Massiah has advertised the sale of his racing stable.—By having a copy shipped by s.s. *Arakaka*, the *Argosy* was able to print Mr. Wood's Report four days before copies were available for the Government and the rest of the Colony.—At a meeting of the British Guiana branch of the British Medical Association on July 7, vigorous criticism was raised by Drs. Rowland, Winkler, and Ozzard against the statement in the Report to the effect that the Medical Service of British Guiana did not appear to be fully alive to the importance of adequate sanitary and health measures being energetically undertaken throughout the Colony, and it was unanimously decided to send to the parent association a strong protest to be forwarded to the Secretary of State.—To mark his retirement from the position of Senior Attorney of Sandbach, Tinné & Co., and of his departure from the Colony,

Mr. Paul Cressall was the recipient of presentations from the Royal Agricultural and Commercial Society and from the staff of his firm (as well as from many other bodies). Replying to Mr. Walcott, who read an address from the latter, Mr. Cressall recalled that his business connection with the Colony started when he came out as a cabin-boy in s.s. *Sandbach* 44 years ago.—The Georgetown Town Council have been informed by the Government that the Governor will be prepared to recommend the raising of a Municipal Loan of \$2,500,000 for carrying out certain road construction and sewerage schemes, provided that a special rate be levied to cover Sinking Fund and Interest charges, to be kept under Government control, that the Government have power to enforce punctual payment, that the Council's estimates of expenditure be approved by either the Governor-in-Council, the Court of Policy or the Combined Court, and that the Government have the right to supervise the proper carrying out of the works undertaken. The Public Works Department is carrying out a series of important experiments in road construction under the direction of Mr. H. S. Whittaker, with the object of finding a means of avoiding the heavy cost of maintenance of roads built of burnt earth.

Lime Measure Discrepancies in Dominica.

A writer in the *Dominica Chronicle* complains that the Government standard measure is not so large as the American fruit barrel used by the principal purchasers of limes, the consequence being that growers who use a Government standard get less for their limes, some buyers paying one third less for the Government measure.—Mr. R. A. Erskine-Lindop has been appointed a Captain in the Dominica Defence Force.

Great Damage Caused by Fire in Jamaica.

There have been recently several serious fires in different parts of Jamaica. On July 21st damage estimated at £50,000 was done to Messrs. Fred L. Myers & Son's sugar wharf by a blaze which started in a stack of crosscut piles belonging to the Government Railway. The cause of the fire has not been ascertained. The loss is covered by insurance. The district of Four Paths in Clarendon was the scene of a five-days fire which came to an end on July 12th, after devastating a large area of cane cultivation and burning a few small houses. Early accounts of the damage (some of which were telegraphed to the English Press) were greatly exaggerated, and the *Gleaner* of July 14th estimates the loss as not exceeding £5,000 (of which £400 represented the value of the houses destroyed), and this was the amount voted by the Legislative Council towards the relief of the sufferers. Another disastrous conflagration broke out in Spanish Town on July 4th, when Mr. Gustav Boettcher's dry goods store was completely destroyed, damage to the estimated extent of £20,000 being done.—Mr. E. C. Buck, Consulting Engineer to the British Manufacturers' Alliance, was in the island at the end of July with proposals for improved fire-fighting appliances in Kingston.

After a prolonged session of four and a half months, the Legislative Council adjourned on July 20th until November 21st. Consideration of a scheme to form a Labourers' Grant-in-Aid Annuity Fund was postponed until the autumn session. An Export Duty (Spirits) Law was passed on July 19th. Explaining its provisions, the Colonial Secretary said that a large export trade in liquor was developing in the island, and it was necessary to provide for the increased Customs

work involved. The duties were fixed at £6 6s. per puncheon or case containing not more than 100 gallons. It was explained that on this measure being enacted, the recently passed Customs Regulation Amendment Law, which provided that whisky put into bond in Jamaica and then shipped elsewhere must pay the island duty, which would only be refunded on production of a certificate showing its arrival at its destination, and was characterised by elected members as an endeavour to do America's prohibition policing, would not be acted upon. The Council has unanimously extended the application of the preferential tariff to the Dominion of New Zealand and the colonies of Cyprus, Fiji, Bahamas, Barbados, British Guiana, British Honduras, Trinidad, the Leeward Islands, Grenada, St. Lucia, St. Vincent, Turks and Caicos, and the Cayman Islands, all of which give reciprocal advantages to Jamaica.—The principle of amalgamating Kingston and Lower St. Andrew has been adopted by the Council. The Amalgamation Bill proposes that the Mayor and Council, the Kingston General Commissioners, and the Parochial Board of St. Andrew shall be dissolved, the functions of these bodies being vested in an official styled the Kingston and St. Andrew Commissioner, who shall hold office until the election of a new body to be known as the Kingston and St. Andrew Corporation, consisting of Mayor, Councillors, and Aldermen.

A bill introduced by Mr. Lightbody on July 4th, aimed at lessening the competition from Chinese and other aliens in the Island was withdrawn by consent, the Governor stating that it was the intention of the Government not to allow the Chinese community to be enlarged by immigration.—A Bill to restrict increases of House Rents was thrown out on July 11th by 8 votes to 7.

An investigation was held on July 21st at the Marine Board into the circumstances attending the grounding of the s.s. *Greenbrier* on April 27th. The decision of the Board, which was presided over by Hon. R. Johnstone, was to suspend the pilot's certificate for three months.—On July 19th, the drought, which had been seriously affecting agriculture, was broken in many places, but in others there were still no signs of rain.—Mr. G. P. Myers and Mr. Caleb Campbell were, on July 7th, elected chairman and vice-chairman respectively of the St. Andrew Parochial Board.—Mr. Lionel de Mercado is President of a New Club, the Jamaica Gun Club, which has been formed with a view to acquiring exclusive shooting rights on some of the best available lands.—Mr. W. A. Baker has been appointed to succeed Mr. A. E. Young as Surveyor-General.—On July 22nd, Hon. F. C. Wells-Durrant, the Attorney-General, left New York to interview the principals of steamship and tourist agencies with regard to the publicity campaign which it has been decided to inaugurate. His plans included the possibility of going on to Canada to get in touch with the Canadian Government and the C.P.R. in the same cause.—Mr. Frank Cundall has been authorised by the Council to prepare a history of the part played by Jamaica and Jamaicans in connection with the war.—A new society, the Jamaica Income-tax Payers Union, has been formed. Mr. R. P. Simonds, Mr. W. Wilson, Mr. L. Nunes, Mr. A. W. Farquharson, Mr. Lionel de Mercado, Mr. P. Lindo, and General Moulton Barrett are amongst the members of the Committee.

St. Vincent and Representative Government.

In a special Representative Government Edition, the *Provisional* of July 15th states that as a result of Mr.

Wood's Report, "the thin edge of the wedge of Self-Government has been driven into the political structure of the West Indies," and appeals to its readers to show themselves worthy of the confidence which has been reposed in them as a people by the Home Government.

Tobago's Crops Short.

Mr. Robert S. Reid, writing on July 13th, states that Major Wood's Report created quite a flutter of excitement amongst amateur politicians in the towns and large villages, but the peasant proprietors and field workers take little interest in the matter. A public meeting was to be arranged in Scarborough at which the opportunity of returning an elected member to the Trinidad Legislature under the proposed new Constitution was likely to be demanded. Much depends on the franchise qualification, but difficulty in getting anyone to stand for election may result in the Governor having to nominate a representative for the Tobago Ward.—The Inspector-General of Constabulary has been visiting the Island to "swear in" the members of the local Defence Force.—The weather continues favourable for the young cacao crop. Field work is not plentiful, and the P.W.D. have practically shut down on the score of economy. Although one or two estates have made average crops for the year ending 30th June, there is a general shortage of from 20 per cent. to 40 per cent. in the cacao output. This is due to the excessive rainfall in the last half of 1921, and the storms of September and October. Unfortunately the poor results financially are restricting all but the necessary cultivation, which may restrict the new crop to some extent. The same applies to coco-nuts, but the trees are hardy and the soil and climate good, and planters anticipate good crops. Planters, perforce, economise, but the heavy dead weight cost of transport is all out of proportion to the value of their produce.—The Clyde Line of steamers landed four steel barges at Scarborough to facilitate loading of cargo. When coco-nuts are saleable at better prices, some use will probably be made of them, but meantime copra pays better and always finds a ready market at Port of Spain.

Trinidad's Civil Servants.

In accordance with a despatch recently received from the Secretary of State, the Government have called upon several members of the Civil Service to resign as from December 31st under the regulations regarding age limit. These include Hon. R. G. Busha, C.M.G., Auditor-General, Hon. Denis Slyne, O.B.E., Receiver-General, Mr. C. F. Huggins, Magistrate of St. Andrew, and Mr. Sydney Smith, Assistant Inspector of Schools. It is understood, however, that certain of these resignations may not take effect pending the completion of various duties.—The *Trinidad Guardian* of July 19th predicts that the establishment of the Agricultural College will probably lead to an extension of cotton growing in the Colony.—Mr. Leonard Child, M.C., who died on July 19th, was the son of Mr. Arthur Child, late Chief Justice of St. Lucia. He served with great distinction during the War in Salonica and Serbia.

The Governor has appointed a Committee to advise the Government as to the desirability of establishing an Agricultural Bank in the Colony. The Auditor-General is nominated as chairman, other members including the manager of the Colonial Bank, Hon. A. H. Cipriani, M.B.E., Hon. E. M. Lazare, and Mr. A. V. Stollmeyer.

OUR WEST INDIAN LIBRARY.

THE RED BOOK OF THE WEST INDIES. *Compiled and edited by ALLISTER MACMILLAN, F.R.G.S.* London, W. H. and L. Collingridge.

The demand for a work of this kind is shown by the fact that when it was first produced in 1909 it ran into three editions. The present volume has been revised and much enlarged, incorporating, as it does, the results of the many important changes which have affected the West Indies in recent years. Historical, descriptive and commercial, the scope of the book is very wide. With his careful record of industrial development and potentialities, and his authoritative accounts, under the headings "Commercial Bridgetown," "Commercial San Fernando" of the principal trading concerns in the larger colonies, Mr. Macmillan has written what almost amounts to a commercial handbook of the West Indies. It is perhaps inevitable, in view of the mass of detail presented, that one or two slips should creep in; thus we notice on page 350, that His Excellency the Governor of Barbados has not been credited with the honour of Knighthood which he received in 1920. We suggest, too, that if in future editions of the book, our Central American Colony of British Honduras were to be included in its purview, its value as a work of reference would still further be increased. Mention must not be omitted of the excellent photographs with which the publication is profusely illustrated, adding greatly to its attractiveness.

POWER ALCOHOL: ITS PRODUCTION AND UTILISATION. By G. W. MONIER-WILLIAMS, O.B.E., M.C., M.A. Henry Froude and Hedder & Stoughton, Bedford Street, Strand. 323 pp. 21s. net.

This work, which is one of the Oxford Technical Publications, appears when apprehensions as to the scarcity of petrol and the consequent seekings after possible sources of alcohol to take its place have passed away. The question of the production of power alcohol is now one of the utilisation of by-products, such as molasses, rather than of the use of first-hand products for the purpose. This, however, does not detract from the merits of the book, although it limits its sphere of usefulness.

The author, after giving a résumé of the scientific position of the plant as a source of alcohol, deals with the production of alcohol from starches and sugars, and in the chapter on "The economics of alcohol production from crops," the results of recent investigations are summarised, while the production of alcohol from cellulose and materials such as sawdust and wood waste is dealt with in chapter v.

One of the most valuable features in the book is the part dealing with the principles of the internal combustion engine and the conditions of application of alcohol to it as a source of power. The chapter on Excise regulations also illuminates this darkly mysterious subject, and Mr. Monier-Williams explains lucidly how the home-produced power alcohol still receives preferential treatment to the extent of 8½d. per bulk gallon as compared with the Empire produced imported spirit.

As might be expected, the printing and general get up of the book is all that could be desired.

A SHORT HISTORY OF BRITISH EXPANSION. By JAMES A. WILLIAMSON. London, Macmillan & Co., 1922. pp. 647.

For all its six hundred odd pages, this volume

must still be called short, seeing, for anyone who traces the story of the Empire, how much there is to tell. Mr. Williamson interprets expansion in a liberal spirit, including not merely colonisation but also the movements that affected it—foreign trade, the rise and decline of economic theories, religious and secular incentives to emigration and changes which have taken place in the national outlook. For this reason he has had perforce to treat his subject in outline, and lest he should miss the wood for the trees has been content to tread the broad highways, leaving many fascinating avenues unexplored. The author's method in dividing his narrative into five well-marked periods, and dealing separately with each, is eminently successful, enabling as it does the reader to determine the progress of any section of the Empire in relation to what was going forward at the same time in other parts of the world. Numerous authorities are quoted, but, perhaps owing to the vast mass of available material, Mr. Williamson seems mainly to rely on recent researches; it is curious in a work treating in part of the English in the West Indies, to find no mention, for instance, of Bryan Edwards of Schonburgk, or among living writers, of V. L. Oliver or Cundall.

As regards the discovery of the West Indies, Mr. Williamson presents, without endorsing, a recent revolutionary theory to the effect that so far from Columbus really setting out for Cathay by a Western route, his intentions were based on the secret knowledge imparted to him by an unknown pilot, who, overtaken by a tempest whilst making a trading voyage, had been blown far across the Atlantic and landed on an unknown shore on the other side, returning after incredible privations and finally dying penniless in Columbus' house after revealing his secret to his benefactor. According to this version, several years afterwards some person, probably Bartholomew Columbus, forged the Toscanelli map and correspondence in order to give the lie to the story—then widely current—of the unknown pilot and the accidental nature of the discovery.

It is common knowledge that at a later period the West Indies were regarded as the most important of all the English possessions, and in this connection the author suggests that if a statesman of Charles II.'s reign had been asked to appraise the various Colonies in the order of their value to the nation, he would have placed Barbados first, followed by Newfoundland, Jamaica and the Leeward Islands; after them, Virginia and Maryland; then the Middle Colonies and the Carolinas, and last of all, New England. Mr. Williamson is also impressed by the fact that whilst the Dominions during the last century have received greater power and wider responsibility, the tendency in the West Indies has been in the direction of increased dependence upon the Mother Country.

The story of British expansion is necessarily not a finished one, since the Empire itself is, let us hope, still in its heyday, and the outcome is for the future to reveal.

MARCONI INTERNATIONAL DIRECTORY OF CABLE ADDRESSES, BUYERS' AND EXPORTERS' GUIDE.—First edition; 13 in. by 9½ in. London: The Marconi International Code Co., Ltd. Price 25s.

The main object of this directory is to develop international trade by bringing together willing sellers and willing buyers of all countries, and to provide them with instantly accessible information intelligible to persons of any nationality. It contains the names of

over 40,000 of the principal firms of the world together with their postal and cable addresses and nature of business; a cable address arranged alphabetically; and a classified trades section, and covers over 1,000 pages.

The mass of information contained in the Directory is exceedingly well arranged, and every progressive merchant should secure a copy. By arrangement with the Marconi International Code Co., Ltd., members of The West India Committee may order their copies from 15, Seething Lane, London, E.C.

A SOCIAL WELFARE LEAGUE.

With Mrs. Bannister as president, and an influential central council, the Barbados Women's Social Welfare League is actively carrying out the objects for which it was formed by Lady O'Brien (now its patroness) last year, namely, the advancement of the moral, mental, and physical welfare of all classes of the community, the promotion of the Venereal Disease Clinic and the provision of amusements as a counter-attraction to the streets. The league has representatives or branches in every parish, and affiliated to it are the Civic Circle, the Baby Welfare League, the Mother's Union, the G.F.S. Girl Guides, and the Girls' Industrial Union. Under the auspices of this useful institution a Venereal Disease Clinic has been successfully started, towards the cost of which Mrs. Fellowes collected in England £175, including £20 from Lord Harewood, the President of The West India Committee. To March last, 225 cases were treated, and it is satisfactory to learn that attendance of patients is becoming more regular and continued.

It would be impossible to commend too highly the work of the ladies of the Barbados Women's Social Welfare League, who are unselfishly devoting so much time and energy to the betterment of the people among whom they live. It may be added that the subscription for membership is a modest 1/- per annum.

SOME COMPANY NOTES.

Consolidated Rubber and Balata Estates, Ltd.

At an extraordinary general meeting, held on July 5th, a resolution for the voluntary winding up of this company was unanimously passed. The chairman, Mr. A. S. Collard, said that the total debit balance at the end of last year was £27,816, and that the company's bankers, to whom they owed a large overdraft, had refused further advances. The position was that, unless the company were placed in voluntary liquidation, its creditors would foreclose, and the property would be realised without any regard to the interests of the shareholders.

Mr. A. F. White, a former manager of the company in British Guiana, was appointed to act as joint liquidator with Major A. P. Stockings.

A new series of experiments is now being made by the Empire Motor Fuels Committee with a view to investigating the effect of ether with alcohol, and the influence of alcohol when mixed with petrol, benzol, paraffin, and the like.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

The Vagaries of the Weather.

SIR,—Last year I wrote you stating that I believed that there is an interconnection between the Northern summer and the West Indian wet season, and I went on to suggest that if records were kept with a view to ascertaining what sequence of weather as regards temperature and rainfall at this end resulted in good rains over British Guiana and the West Indian Islands, that it might be found possible to forecast the character of the coming wet season in the West Indies in any given year from the character of the Northern weather during the months preceding it.*

Thanks to the help of friends in London and in the West Indies I was able in 1921 to keep records of the weather here, and to compare the two weather systems. One year's records are not enough to determine if forecasting is possible, but they strengthened my belief that there is an interconnection between the two weather systems. In writing last year I laid great emphasis on temperature, but the result of my work in 1921 was to show that humidity must also be taken into consideration. Last year drought prevailed not only in the United Kingdom and Ireland but throughout Europe generally. There were localities which were favoured with a better rainfall and localities which were specially hard hit, and these conditions were reproduced in the West Indies. Again rainfall has been over the average for the first four months of this year and in Barbados (an island of smooth and rounded contours the general land mass of which stands at no great height above the sea level) what are known as the planting showers were more abundant and the young crop was easily established and is looking well. Last year's conditions were just the reverse and the young crop was not established until late. This is especially interesting as it shows that the humidity of the Northern air supplies from which the North-east Trade draws affect not only the amount of the precipitation during the regular wet season, but even the amount of rain which comes from the occasional light showers that fall at other times during the year. In the West Indies the governing factor which determines how much rain will result from the passage over a place of a moisture-bearing current appears to be elevation above sea level. A most interesting example of this occurred at the time of the hurricane last year. The storm passed South of Barbados, St. Vincent and St. Lucia. The indraught to the storm when passing over Barbados produced an average rainfall of just over $\frac{1}{4}$ inch. Barbados, as I have said above, stands at no great elevation above sea level. In St. Vincent and St. Lucia, in both of which islands the general land mass is much higher than in Barbados, the rainfall was much greater.

From my observations during the year it seems likely that if I am successful in showing that a fairly reliable forecast can be made of the character of the wet season year by year, each colony taking the matter up will have to work out its own forecast, both on account of differences in elevation above sea level, and because they are situated at varying distances from the equator. The matter of distance from the equator obviously determines the date on which the

*THE WEST INDIA COMMITTEE CIRCULAR No. 588, 1921, page 167.

wet season starts, since the equatorial belt moving from South to North must reach the Colonies nearest the equator first. But this matter of position may have more important consequences. Last year when the majority of the West Indian Islands suffered from a shortage of rainfall, some very severely, Trinidad had a fair amount of rain. British Guiana had good rains in the early part of the year, which closed with very heavy wet weather. That these two colonies had no shortage of rain was obviously due to their position. The year 1921 opened warm at this end, so much so, that spring last year began early instead of late as happened this year. The effect of this was to start the belt of calm moving northward earlier than usual and the wet season in Demetara and Trinidad started early. During the latter part of the year there were cold spells here, but these were not prolonged enough to interfere with the normal movement of the belt over those two colonies although they may have interrupted the smooth sweep of the belt northward; and so owing to their position British Guiana and Trinidad escaped the drought conditions that places further away from the equator were subjected to.

There were other matters which I was able to note from keeping records in 1921, but I must not trespass further on your space.

Faithfully yours,

FRED C. S. BASCOM.

Plantation White Sugar.

SIR,—With reference to the letter from Mr. Claude Hillary on the above subject in your last issue, the following appear to me to be cogent reasons for the British West Indian sugar planters substituting the manufacture of plantation white sugar for that of 96 degrees refining crystals.

1. They could make it, as shown by the excellent white sugar made at Caroni in Trinidad and Caymanas in Jamaica.

2. The c.i.f. value of Preferential plantation white sugar is not less than £6 in excess of that of Preferential 96s., when the refiner only takes 5s. of the preference value in dealing with the latter. The more of the preference the refiner succeeds in obtaining over this figure, the more is the excess of value in favour of plantation white sugar.

3. Of the above £6, between £3 10s. and £4, at a very conservative estimate, is net profit, interest on investment in additional machinery, depreciation, extra cost of manufacture and loss from higher polarisation of the sugar, being allowed for on a liberal scale.

4. The sugar consumption of the United Kingdom is rapidly approaching 1,750,000 tons per annum, of which it is evident that the refineries cannot supply more than 1,000,000 tons. There is thus room for all the white plantation sugar that Mauritius, the British West Indies and Natal can supply without entering into competition with the home refiner. But even if there were competition, preferential white plantation sugars would be in a favourable position for it, on account of the lower cost of production.

5. The rapid increase of consumption in the United States is crippling the power of export of the refiners of that country: and supplies are likely to be less available in the future from that source than of late, and the same may be said of Continental sugar from a similar cause. But, in any case, these sugars are non-preferential, and therefore at a disadvantage of £4 5s. per ton as compared with British plantation white sugar.

6. In the event of the lapse of the preference due to the abolition of the sugar tax or to other causes, the West Indian Planter making white sugar would certainly not be in a worse position than if he were making 96 degrees sugar. Indeed he would be in some respects in a far better position, inasmuch as the extra value of his sugar would be greater in proportion to the extra cost than the extra value of the refiner's product to the cost of refining.

I am, Sir, etc.

FREDERIC I. SCARD.

WEST INDIES AT WESTMINSTER.

The Houses of Parliament adjourned for the Autumn Recess on August 4th until November 14th.

Gold Coast Cacao.

Mr. Churchill informed Dr. Murray on July 17th that he was considering whether the financial position of the Gold Coast justified any reduction in the export duty, which, he added, had not prevented a continuous increase in the quantity of cacao shipped.

The Empire's Cotton Crop.

Sir Philip Lloyd-Graeme informed Mr. Hannon on the 4th August that the most reliable estimates of the world's cotton crop indicated that approximately 17 per cent. of the total would be grown in the British Empire, including nearly 16½ per cent. grown in India.

Price of Palm Kernels.

Mr. Churchill informed Dr. Murray on the 25th July that the average price of palm kernels at Lagos (in May) was about £11 per ton, the export duty being £2 a ton. In reply to Mr. Myers, Mr. Churchill stated that cacao was produced on a considerable scale in the British sphere of the Cameroons, which imposed an export duty of £2 6s. 8d. on this product as in Nigeria.

Crown Agents' Contracts.

Mr. Wood informed Mr. Lyle, on the 2nd August, that it was the practice of the Crown Agents for the Colonies to ensure, as far as possible, that all requirements of the Crown Colonies were placed with manufacturers in this country. During the last year only two small contracts for manufactured goods had been placed outside the United Kingdom, namely: Dump cars for the Harbour Works, Gold Coast, value £11,227, ordered from a Canadian firm, and Necessars for Ceylon, value £7,687, ordered from Germany.

The Belize Water Supply.

Mr. Hannon asked the Secretary of State for the Colonies, on the 2nd August, whether His Majesty's Government would consent to guarantee the loan to Belize, British Honduras, for providing an adequate water supply for the city on the condition that the materials were purchased in the United Kingdom, especially in view of the rival offers put forward by American firms. Mr. Wood replied that the question of the provision of an adequate water supply for Belize was receiving consideration. Assistance under the Trade Facilities Act would be likely to raise questions of the control of the finances of the Colony, and such control in British Honduras rested with the unofficial majority of the Legislative Council.

THE WEST INDIAN PASSENGER LIST.

VISITORS FROM OVERSEAS.

Elders & Fyffes, Ltd.

Sailings to Bermuda and Jamaica, from Avonmouth, in R.M.S. *Coronado*, July 29th:

BERMUDA.

H. K. Jess - General Sir	Miss R. Gunn & Son	Miss B. Mison
John Asser, K.C.M.G., C.B.	Miss D. F. Hammond	Mr. H. G. L. O'Connell
K.C.V.O., C.B.	Miss E. H. Harrington	Mrs. M. H. S. Philip
Lady Asser	Lt. Col. & Mrs. J. W. W. Houghton	Miss N. M. Pye
Miss M. Asser	Miss A. M. Heney	Mr. H. V. Silk
Capt. K. R. Chanter	Mr. T. Mason	Major & Mrs. C. E. Sykes-Wright
Miss L. Farley	Capt. C. H. Moore	M. & Mrs. E. Winter
Mrs. M. Feldwick	Mr. & Mrs. A. K. Nicholl	
The Misses Feldwick (3)		
Mr. W. T. Foxlee		

KINGSTON.

Mr. W. T. Connolly	Mr. G. S. MacIntosh	Mrs. & Miss Martin
Mrs. R. M. Hall	Miss B. W. R. McCrindle	Mrs. E. Ross

Home arrivals from Jamaica, in s.s. *Greenbrier*, Liverpool, August 6th.

Mr. & Mrs. W. P. Adams	Mr. D. D. Callaghan	Miss F. M. Small
Mr. Sidney Alberca	Mr. W. Cowper	Mr. R. E. Wyman
The Misses Arrett	Mr. Trevor Lyons	

Home arrivals from Jamaica, in s.s. *Comita*, Avonmouth, August 6th:—

Mr. & Mrs. Carrill	Mrs. & Miss Isaacs	Miss J. O'Leary
Miss Carrill	Mr. A. Joderholm	Mr. P. O'Leary
Sir Anchoy Coll	Mrs. E. Levin	Mr. & Mrs. Rosenthal
Mr. & Mrs. Daubleday	Mr. Mackay	Mr. V. Rudolf
Mr. & Mrs. Ellis	Mrs. M. Manton	Miss M. Shields
Mr. F. Gandy	Mr. & Mrs. Milligan	Lt. Cdr. Swanson
Mr. P. Geringer	Mr. F. Moving	Hon. & Mrs. W. A. S. Vickers
Miss K. Howson	Mr. J. Morrison	Mr. & Mrs. Wightman
Mr. & Mrs. Heywood	Lieut. J. H. Owen	

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Settler*, August 11th:—

Mr. Archer	Mr. V. Forbes-Todd	Mr. & Mrs. A. C. Thomas
Mr. Stanley Cox	Miss M. Burgin	The Misses Thomas (2)
Col. & Mrs. Davidson-Houston	Miss A. Rice	

Royal Netherlands West Indian Mail.

Sailings to West Indies from Dover, in s.s. *Van Renselaer*, July 29th:—

Mr. & Mrs. R. Bonello	Mr. G. L. W. Fleming	Mr. V. H. Robinson
Mr. & Mrs. S. E. Bronker & family	Mrs. & Miss Golding	Mr. & Mrs. W. E. Ross
Mr. J. P. Clegham	Mr. Mrs. & Miss Gibson	Mr. C. F. Smith
Mr. C. R. Clements	Mr. S. D. McClean	Miss A. Tait
Mrs. M. de la Duke	Mr. T. McLellan	Mr. L. Ventress
Rev. Canon W. S. Dooly	Miss V. B. Nye	Mr. J. C. L. Verley
Miss K. B. Dooly	Mr. L. M. Ounmanney	Mr. J. W. Widdie
Mr. D. L. A. Durore	Mr. M. A. Ravenor	Miss B. K. Wood
	Mr. G. Robinson	

Sailings to West Indies, from Dover, in s.s. *Crymson*, August 12th:—

Mr. & Mrs. J. Acham	Mr. J. Davey	Mrs. & Miss Sharps
The Misses Acham (2)	Mr. L. J. Greal	Mr. J. Simpson
Mr. P. Acham-Cham	Mr. & Mrs. W. Heaton	Mr. A. G. Stuart
Mr. & Mrs. H. Bax	Mr. & Mrs. W. Heaton & child	Mr. A. E. Thompson
Miss & Miss A. J. Croome	Miss G. Julian	Mr. H. D. Weatherhead
Mrs. J. Dalton	Mr. & Mrs. J. Peedrich	Mr. & Mrs. G. R. Wight
	The Misses Sadgwick (2)	

Home arrivals from West Indies, in s.s. *Oranje Nassau*, Plymouth, August 1st:—

Miss M. Bailey	Mrs. V. Hayden	Mr. & Mrs. J. McLelland & family
Mr. J. M. Beveridge	Mr. B. Hayden	Mr. N. McPride
Mr. C. Bolton	Dr. C. J. Hicks	Mr. J. A. Parillon
Mr. J. Brewster	Mrs. A. Horroop	Mr. L. Riddick
Mr. E. H. Brocksopp	Mr. W. Johnson	Mr. D. Robertson
Mrs. I. Carrington	Mr. D. Krag	Mr. A. Ross
Mr. H. W. Everington	Mr. P. Laurie	Mrs. R. Sharp
Mr. W. Ferns	Mr. A. Levitt	Miss P. Sharp
Mr. A. Fisher	Mr. E. Mackillop	Master C. Sharp
The Misses Green (2)	Mr. W. Mackay	Mr. M. Sweeney
Mr. W. J. Gill	Mr. J. McConry	Mr. K. H. Williams
Mr. P. Gill	Mr. W. McFarlane	
Mr. H. Gomez		

Mr. L. G. Alston	Mr. S. M. Jacobsen
Hon. J. P. Auld, M.L.C.E.	Mr. E. B. Jazvis, C.M.C.
Mr. P. C. Archer	Mr. H. I. Jeffers
Mr. Robert Arthur	Mr. Archibald Johnston
Mrs. A. Bagot	Hon. W. G. Kay
Dr. R. Wellesley Bailey	Capt. O. H. Keelling
Mr. James Black	Mr. J. D. L. Lamport
Capt. W. Bowring, M.B.E.	Mr. A. Laurie
Mr. A. C. Brazao	Mr. Dudley Leacock
Mr. A. J. Brooks	Mr. L. J. Lee
Mr. G. G. Brown	Mr. A. Levitt
Mr. James Brown	Mr. C. Hope Levy
Hon. P. N. Browne, K.C.	Mr. K. S. Longley
Mr. R. Bryson	Mr. A. M. Low
Mr. H. Gordon Burr	Hon. J. Challinor Lynch
Miss E. Burton	Mr. L. Lywood
Mr. M. P. Canacho	Mr. John Macdonald
Mr. F. H. Canning	Mr. William Mackay
Mr. J. W. Cattacari	Mr. M. J. Mallard
Hon. Cecil Clementi, C.M.G.	Hon. Harcourt Malcolm, O.D.E.
Hon. Col. J. H. Collins, V.D.	Mr. Samuel Manning [K.C.]
Miss Honora C. P. Coddell	Mr. F. S. Mason
Dr. J. H. Cooke, B.A., M.B.	Dr. H. Gray Marshall
Mr. F. A. Corea	Mr. G. C. May
Mr. R. P. Daggett	Mr. Hugh McLellan
Mr. M. D'Andrade	Mr. J. C. McLellan
Mr. & Mrs. Jean C. Daniels	Mr. W. McMillan
Mr. A. Cory Davies	Mr. J. Morrison
Mr. J. de Freitas	Hon. W. Morrison
Dr. Q. R. de Freitas	Mr. R. Nicol
Hon. H. de Mirville	Mr. J. A. O'Brien, [K.C.M.G.]
Hon. K. McM. de Roux	Mr. J. A. P. O'Reilly, K.C.
Mr. G. P. Deust	Hon. J. H. Philipps
Mr. F. J. Dennis	Mr. G. H. Pile
Mr. H. A. Evelyn	Mr. V. A. Pires
Mr. T. P. Evelyn	Hon. J. Stanley Rae
Mr. W. H. Farghalerson	Hon. E. A. Robinson
Hon. H. Ferguson	Mr. J. A. Robotham, P.S.A.I.
Mr. W. G. Freeman, D.Sc.	Hon. W. L. Robson
Mr. J. K. French	Mr. A. T. Rock
Dr. W. H. Frets	Mr. L. A. Ryan
Mr. C. C. George	Mr. W. Sanderson
Mr. P. P. C. Gill	Mr. L. H. Schoener Scott
Mr. E. P. Gladwin	Mr. G. Hill-Steady
Mr. J. Gonslaves	Mrs. H. H. Sealy
Mr. Gordon Graham	Dr. L. R. Sharples
Mr. J. T. Gray	Hon. A. P. Sherlock
Mr. P. Lechmere Guppy	Mr. W. M. D. Shields
Mr. J. H. Hinch	Hon. R. P. Simmonds
Mr. A. H. Hannel-Smith	Dr. E. M. Skeele
Mr. H. Hannel-Smith	Mr. M. Howard Smith
Mr. Alick G. Havelly	Mr. M. S. Moody Stuart
Mr. V. Hausschell	Rev. W. R. Symons
Mr. V. C. Hausschell	Dr. H. A. Temperley
Sir J. B. Harrison, C.M.G.	Mr. L. A. Torrance
Mr. S. M. Haighton-James	The Rev. Bishop of Trinidad
Mr. L. M. Hobson	Hon. W. A. S. Vickers
Mr. F. W. Hopkinson	Hon. R. A. S. Warner, K.C.
Mr. G. F. Higgins, O.R.E.	Mr. Hugh F. Wildy
Mr. W. P. Humphrey	Mr. P. Williams
Mr. H. L. Humphrys	Hon. S. Wolff-John
Mr. J. M. Ironside	Mr. W. Harold Wright
Capt. Thomas H. Irving	Mr. G. A. Yearwood
Mr. L. A. Isaacs	Mr. H. Graham Yearwood
Hon. Mr. Justice E. C. Jackson	
Mr. Henry H. Baird, ex Messrs. Thom & Cameron, 93, Cheapside Street, Glasgow.	
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.	

WEST INDIAN SECURITIES.

Div.	Security	Latest price.
4 1/2%	Antigua ... 4 1/2	1918-44 ... 82-84
4 1/2%	Barbados ... 4 1/2	1922-42 ... 74-76
4 1/2%	British Guiana ... 4 1/2	1935 ... 87-89
4 1/2%	British Guiana ... 3	1921-45 ... 61-63
6 1/2%	British Guiana ... 6 1/2	1922 ... 104
4 1/2%	Grenada ... 4 1/2	1912-42 ... 82-84
4 1/2%	Jamaica ... 4 1/2	1934 ... 85-87
4 1/2%	Jamaica ... 4 1/2	1919-49 ... 77-79
4 1/2%	Jamaica ... 3 1/2	1922-42 ... 70-72
4 1/2%	St. Lucia ... 4 1/2	1919-44 ... 75-81
4 1/2%	Trinidad ... 4 1/2	1917-42 ... 83-87
4 1/2%	Trinidad ... 3 1/2	1922-44 ... 68-70
8%	The Colonial Bank ...	6-8
6%	Royal Mail Steam Packet Co. Ordinary ...	86-91
5 1/2%	Anguilla Bitters Part. Preference ...	100-108
7 1/2%	New Trinidad Lake Asphalt Co. Debentures	1 3/4
—	Consolidated Rubber and Balata Estates Pref.	—
—	St. Madeleine Sugar ...	400-
—	Apex (Trinidad) Oilfields, Ltd. ...	11 1/2
—	Petroleum Options, Ltd., 10 ...	32-6
—	Trinidad Central Oilfields ...	7 1/2
—	Trinidad Dominator Oil, Ltd., 10 ...	20-6
—	Trinidad Leaseholds, Ltd., 10 ...	8-8
—	United British Oilfields of Trinidad, Ltd. ...	8 1/2
—	General Petroleum of Trinidad ...	8-
—	Napierina Oilfields of Trinidad ...	8-
—	Direct West India Cable Co. ...	1-1
—	W. I. and Panama Tel. Co., Ltd. Ordinary ...	13 1/2
—	W. I. and Panama Tel. Co. Ltd. 5% Cum. 1st. Pref.	1-1
—	W. I. and Panama Tel. Co. Ltd. 2nd ...	1-1
5%	W. I. and Panama Tel. Co. Ltd. 5% Debentures ...	75-81

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.
Telegrams—
"Carib, London."



15, SKETHING LANE,
LONDON, E.C. 3.
Aug. 15th, 1922.

BANK RATE. 3 per cent. as from July 18th.
EXCHANGE. Value of the £ Sterling.

	Aug. 1st	Aug. 15th		Aug. 1st	Aug. 15th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	16 34	16 4	In Spain ...	1 2 9	1 2 9
.. France	2 8 6	2 8 10	.. Germany	1418 0 0	1784 0 0
.. Belgium	2 7 7	2 8 2	.. Austria	8313 0 0	Nominal
.. Italy ...	3 16 9	3 1 8	.. Holland	18 10 4	19 0

The intrinsic value of the gold sovereign is £1 1s. 9d.

SUGAR. The New York Market was fairly strong at the beginning of the fortnight, prices of Cubans advancing from 5.96c., duty paid, to 5.42c. At this point buyers held aloof, and the market weakened, but on the 11th a firmer tone prevailed, buyers re-entering the market, and sales of Cubans being effected at 5.36c. Sellers then advanced their prices to 3.87c. c.i.f., as against the buyers' 3.62c. c.i.f., sales yesterday being effected at 5.36c. duty paid, equal to 3.60c. f.o.b., or 3.75c. c.i.f.

Future market quotations were: September 3.66c.; December 3.79c.; March 3.62c.

Refiners have again advanced their prices in the Home Market during the fortnight, and the values of all kinds are consequently higher than at the date of last Summary. Quotations yesterday were: London Granulated, 53/9, as against 51/9; American Granulated, spot, 51/6, as against 51/-; Yellow Crystals, 47/3, as against 46/3; West Indian Crystallised, 44/6 to 47/3, as against 43/- to 46/-; White Mauritius 49/3, as against 49/-; White Trinidad 50/9, as against 49/-. Foreign 96 deg. were quoted at 19/6 c.i.f., as against 19/3, with sales of Preferentials at 22/- c.i.f.

Terminal Market values were: 96 deg. September 19/6; White, September 23/-; December 22/2d.

In the Permanent Tariff Bill before the United States Senate, an amendment to the sugar duties has been passed increasing the Customs duty to an extent that will bring the full duty on 96 deg. to 2.90c., making that on Cuban 1.84c. This decision, however, is not final. A sugar trust with the object of controlling and re-developing the entire sugar industry of Soviet Russia has been formed, with its seat at Moscow. According to the *Louisiana Planter*, the trust will be managed by a committee of three, of which the chairman will be appointed by the Minister of Agriculture, the other two members being immediately connected with sugar. Russia has now only 235 sugar factories left, of which 57 will operate for the coming crop.

The Board of Trade Returns for July show that 153,500 tons of sugar were taken out of bond during the month, bringing the consumption for the seven months of the year up to 938,125 tons, as against 814,836 tons for the corresponding period of last year, or at the rate of 1,608,228 tons per annum, as against 1,894,860 tons per annum. Out of the month's 153,500 tons, only 85,058 tons came from the home refineries, bringing their contribution towards the public supply to 552,242 tons for the seven months, or slightly under 59%, as against 58.5% for the corresponding period of last year.

The imports for the month totalled 175,485 tons, made up of 60,595 tons of refined, and 114,890 tons of unrefined. Europe accounted for 2,325 tons of the refined and the United States 46,575 tons. In the unrefined category, 78,871 tons came from Cuba, 14,500 tons from the British West Indies and British Guiana, and 6,514 tons from Mauritius, the balance being made up of 2,358 tons from Peru, 1,787 tons from Brazil, 0.5 ton from British India, and 5,409 tons from other countries not in Europe. There have been imported for the seven months 1,214,233 tons, 921,610 tons of refined and 892,665 tons of unrefined. Europe has contributed during this period 46,355 tons, the United States 220,687 tons,

Cuba 572,365 tons, Mauritius 97,885 tons, and the British West Indies 82,196 tons. The Cuban supply has thus been 47% of the whole directly, and 18% indirectly, in the form of American granulated, in all 65%, while that of the British Colonies has been slightly under 15%. The stocks on hand on July 31st were 315,900 tons, consisting of 43,100 tons of home refined, 39,500 tons of imported refined, and 264,300 tons of unrefined. These figures compare with stocks on hand on June 30th of 364,250 tons, consisting of 44,300 tons of home refined, 41,750 tons foreign refined, and 278,200 tons of unrefined.

During the six months ending June 30th, 3,762 tons of home-made beet sugar went into consumption.

RUM. There is absolutely no demand either for Jamaica or proof kinds.

Imports for the month amounted to 63,526 proof gallons, and the quantity which went into consumption, to 80,507 gallons. The seven months' figures are 1,288,712 gallons and 790,219 gallons respectively, as against 3,365,456 gallons and 1,046,310 gallons for the corresponding period of last year. The month's exports were 22,039 proof gallons, making 287,668 gallons for the seven months, as against 104,431 gallons for January-July, 1921. The stocks on hand on July 31st were 11,087,000 gallons, as against 11,188,000 gallons on June 30th.

CACAO generally has remained very quiet. Small spot sales of fine Grenada have been made at 57/- to 58/-. Fine estates Trinidad is quoted at 73/- to 75/-, with small sales reported at the lower figure. There is nothing doing in export.

There were 80,216 cwts. of cacao imported during July, of which 14,099 cwts. came from the British West Indies. The quantity taken out of bond for consumption was 82,232 cwts. The total imports for the seven months have been 968,142 cwts., of which 94,949 cwts. were British West India, and the consumption 575,481 cwts. The latter compares with a consumption of 516,838 cwts. for the corresponding period of last year. The exports for the month amounted to 20,637 cwts., bringing the total for the seven months to 292,085 cwts. The stocks on hand on July 31st amounted to 848,000 cwts., as compared with 859,000 cwts. on June 30th.

ARROWROOT. The market is bare of common kinds, and as recent arrivals are not yet available, low to good manufacturing kinds command an advance of fully 3d. on last prices.

BALATA. West Indian sheet remains firm, but quiet. Value 3/3 spot, forward 3/2 c.i.f.

BAY OIL continues neglected.

COFFEE The market has remained closed since the 1st inst., and re-opened to-day. Jamaica good to fine ordinary is nominally unchanged at 65/- to 70/-.

COPRA is steady, with very little doing. West Indian f.m.s. is valued at £25 15s. to £26, c.i.f. London or Rotterdam.

HONEY. Since the last auctions—reported in last Summary—there has been hardly any demand privately. Values remain nominally unchanged.

LIME PRODUCTS. Lime Oil. Handpressed is weak, with no sales reported. Distilled is steady, with sales at 2/- per lb. **Lime Juice.** Arrivals of new season's Raw are meeting a dull market, with no sales reported. Concentrated is lower, with fair business at £17 10s.

LOGWOOD is quiet, with a very small business passing. Nominal value unchanged at 28 10s. per ton.

ORANGE OIL. The market for Sweet is quiet, with no change in values. Bitter is neglected.

RUBBER is only in moderate request, with a fair inquiry from America. Crepe and sheet are quoted at 7½d. spot.

SPICES. Small spot sales of **Pimento** have been made at 2d. per lb., but the market is quiet. There is a very quiet demand for Jamaica **Ginger** which is valued nominally at 17½/- to 21½/- spot for small to fine bold bright. **Nutmegs** and **Mace** are unchanged.

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 6642.

Telegrams:
CARIB. LONDON.



15, SKETHING LANE,
LONDON, E.C. 3.

August 29th, 1922

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 ls., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

WHY NOT "DRIFTERS"?

FROM the letter to the Secretary of State for the Colonies, published in our last issue, it will be noted that THE WEST INDIA COMMITTEE has called attention to the need of restoring Dominica's coastal steamship service. In every West Indian colony coastal steamer communication is now far worse than it was immediately before the war. On the grounds of economy coastal services have been suspended, and, generally speaking, the facilities for handling coastwise traffic are little better than they were a hundred years ago, before coasting steamers were sent out to the West Indies to link up the capitals of various islands with the outposts. The efficient coastal steamer services enjoyed by Dominica, Grenada, St. Lucia and Jamaica are no more, and that of Trinidad has been reduced to a single steamer. In reviewing the

position generally, it might be asked why greater advantage is not being taken of the internal combustion engine in this connection. Motor boats and vessels fitted with auxiliary motors are being used in some cases; but, in the light of recent developments, it does seem remarkable that several West Indian islands should still be dependent on sloops for communication with one another, and one has in mind the position of Nevis in relation to St. Kitts, Grenada to that of Carriacou, St. Vincent in regard to Union Island, and Jamaica to the Cayman Islands. Would it not be worth while to take expert advice as to whether motor boats and motor droghers could not be economically used for coastal services and for linking up islands such as those mentioned above? We believe the answer to be in the affirmative. Another suggestion which we venture to make is the possibility of using "Drifters" or "Trawlers" for this purpose. During the war a very large number of drifters and trawlers were built and commandeered for anti-submarine and mine-sweeping service, and in recent years these strong little ships have been placed on the market at prices which in many cases make their purchase a real bargain. Some drifters, indeed, have been sold at a figure as low as £750 to £1,000 each where an order has been placed for a number. Wooden drifters about 85 ft. long are still to be obtained for about £1,500 each, whilst for a steel vessel of this type £2,500 would have to be paid, these figures representing about a sixth of the vessels' cost price. Again 125 ft. steel trawlers, well-built vessels with a good turn of speed and general handiness, which are suitable for conversion to many purposes as sea-going vessels, obtain about £5,500. The cost of sending these vessels across the Atlantic would, no doubt, be heavy, but, even taking that into account, their price delivered at a West Indian port should be attractive. If these vessels could be adapted for the purpose of application to coastal services, there would here appear to be an opportunity of the local governments securing a bargain, and solving the problem arising from the suspension in recent years of the steamer coastal services.

THE WEST INDIA COMMITTEE.

IN their Royal Charter of Incorporation the object of THE WEST INDIA COMMITTEE is stated to be by united action to promote the interests of the agricultural and manufacturing industries and trade of the British West Indies, British Guiana, and British Honduras, and thus increase their general welfare. Whilst the COMMITTEE have never swerved from fulfilling as far as has been humanly possible

the primary purpose for which they came into existence, in the course of time other activities on behalf of the West Indies have come to be added. Among these may be classed what we will call personal service to its members. It must be of the greatest value to members of the COMMITTEE living—as two-thirds or over 1,600 of them do—in the West Indies to feel that they have in this country a body which is anxious and willing to represent their interests on this side whilst they are away, and do all that is possible for their comfort when they may land on these shores. Such services take many forms, ranging from such small but essential matters as the obtaining of passports or passages or the finding of hotels to the more weighty fiduciary relationship of acting *in loco parentis* to the children of members resident in the West Indies who have been sent to school in this country. What the COMMITTEE has been able to do in this respect is, we believe, greatly appreciated; at any rate, in recent years it has certainly very largely increased. A typical example of this appreciation came to hand from a member a few days ago. Writing to say good-bye after a short visit to this country, this member stated: "I have to thank you for all the kindnesses you have shown to me since my arrival in London on the 8th inst., and I wish particularly to say that I consider THE WEST INDIA COMMITTEE a very good friend in the many difficulties I have had to meet as a stranger in this large City." The value of the assistance which was given to West Indian soldiers during and after the war has been too often recognised to need recapitulation here. It is not, however, so widely known that the COMMITTEE were able to step into the breach, when the Board of Trade had definitely declined to assist further in the provision of passages, by arranging, at the request of the Colonial Office, for the repatriation of a number of British West Indian seamen who for various reasons had been paid off in British ports, and owing to the shipping depression were unable to sign on again, and were not able to obtain employment of any other kind. These men were often reduced to a state of the greatest distress, through no fault of their own, and whilst the Borough Guardians and Poor Law Officers did much to relieve their immediate necessity, it was obviously desirable to help them to return to their own Colonies, where they had friends and a reasonable chance of obtaining employment. This THE WEST INDIA COMMITTEE, through the valued co-operation of the shipping companies concerned, have been able to do in a great number of cases, and they continue to act in this capacity. It seems to us, then, sufficiently evident that THE WEST INDIA COMMITTEE do not take any narrow view of their responsibilities, and that apart altogether from questions of trade, they are able to offer many important facilities to their members and to West Indians generally. We trust that with greatly improved and far more commodious premises, which we hope to learn that the COMMITTEE will soon have acquired, they may be able to continue their good offices on an even larger scale. All that is needed is that the COMMITTEE shall more and more receive the unstinted support of all who have the welfare of the West Indies at heart.

SOME NOTES OF INTEREST.

"MOUT open, story jump out."

* * *

SIR SAMUEL HOARE has been appointed a member of the Royal Commission on the Distribution of Honours.

* * *

LIEUT. C. S. B. SWINLEY, R.N., until recently A.D.C. to the Governor of Barbados, has been appointed to H.M.S. *Curacoa*.

* * *

MR. F. T. G. TREMLET, who served as Sub-Inspector and Inspector of Constabulary in Jamaica from 1903 to 1912, has been appointed Assistant Commissioner of Police, Uganda.

* * *

OF the 76 largest vessels now owned in the world—those of 15,000 tons and above—*Lloyd's Register* shows that 33 are under five years old, 18 between five and ten years old, and the other 25 between ten and twenty-five years old.

* * *

ALTHOUGH the condition of the canes for next year's crop in Cuba is far better than that of the canes at this time last year, it is not expected that the next crop will equal the present owing to the smaller area planted.

* * *

DURING the first seven months of this year Great Britain exported 14,189 dozens of pairs of leather boots and shoes to the British West Indies, as compared with 2,931 and 4,018 dozens of pairs in the same periods in 1921 and 1920 respectively.

* * *

THERE are now 63 estates, comprising 6,000 acres, in Java growing coca, the cultivation of which was begun there in 1880. Planted as a subsidiary crop with coffee, rubber and cacao, Javan coca finds a ready market in the United States and Japan.

* * *

OF the 197 touring cars, 83 motor lorries, and seven motor cycles in the Bahamas, all are located in Nassau, and nearly all (reports the United States Consul) are of American make, three American car manufacturers being represented by agents in Nassau.

* * *

THE WEST INDIA COMMITTEE are now acting as agents of the Bahamas and Bermuda Development Boards, whose object it is to popularise those colonies as tourist resorts. The publications of the Boards can now be obtained at the Committee Rooms, 15, Seething Lane, E.C.

* * *

IT is understood that Sir Graeme Thomson, the Governor-Designate of British Guiana, will not proceed to Demerara before next spring, since Sir Wilfred Collet will continue to administer the Government of the Colony until next April, when he will retire. A photograph of Sir Graeme Thomson appears on page 397.

* * *

SIR JOHN HARRISON, who has been undergoing a course of treatment at the Hospital for Tropical

Diseases, is now at the Hechester Mansions Hotel. Though much better in health, it is improbable that he will be able to leave for British Guiana at the end of September as originally intended. Lady Harrison has also greatly benefited from her visit to England.

* * *

MR. L. OWEN, the British Honduras Government Geologist, has returned to this country, where he is examining samples and co-ordinating the results of his researches into the colony's mineral resources. His investigations have led him to the belief that oil is not, after all, to be found there in a paying quantity, but he is more hopeful regarding other mineral products.

* * *

WHY will the Board of Trade persist in classifying saccharine under articles of food? At present it comes between "glucose" and "confectionery" in Group F of Class I., when its proper place is among drugs in Group N of Class III. The recent alteration of the form in which the monthly returns appear would have been a good opportunity to right this injustice to sugar.

* * *

THE annual report of the Marian Central Factory in Queensland states that last season 57,384 tons of canes were ground, which yielded the equivalent of 6,045 tons of sugar of 94 per cent. net "litre," and that there will not be a boom in values of such an extent as to raise materially the retail price of sugar, the actual net litre for the season being 98.73. The statement of assets and liabilities showed a profit for the year of £29,685.

* * *

THE Hon. R. S. Aucher Warner, K.C., has resigned his position as Attorney-General of Trinidad and Tobago. Should he and Mrs. Warner decide to make their home in this country, England's gain will be Trinidad's loss, for as a sportsman, as well as in his capacity of lawyer, Mr. "Auchie" Warner is deservedly popular in Ière. It will be recalled that he was "skipper" of the first West Indian cricket team to visit England.

* * *

A SHEET of rubber which formed part of the cargo of a vessel torpedoed in the Mediterranean during the war has been cast ashore at Spitzbergen. It must have been carried through the Straits of Gibraltar, passed out into the Atlantic, travelled via the North Equatorial Current across to South America, thence up along the coast to the West Indies and into the Gulf of Mexico, where it would have been caught up by the Gulf Stream and carried north.

* * *

A HARLEY STREET dentist, having declared that "confectionery is doing humanity more injury than drink," Mr. P. W. Vinsen has challenged him to produce evidence to substantiate such a sweeping statement before a committee, according to whose finding either he or the dentist shall pay £100 to charity. Mr. Vinsen points out that men with the whitest teeth in the world are to be found on the sugar plantations, "where they are always chewing sugar cane." The challenge has not been accepted.

THE Imperial Department of Agriculture for the West Indies having been amalgamated with the West Indian Agricultural College, the head office of the department has now been transferred from Barbados to Trinidad. In consequence of this transfer, it is requested that all communications for the Department may be addressed to the principal of the college, or to the Imperial Commissioner of Agriculture, as the case may be, at the West Indian Agricultural College, St. Augustine, Trinidad,

* * *

THE export of refined sugar from the United States for the first six months of the present year amounted to 665,709 long tons, 75 per cent. more than the highest export of previous years for the similar period. This represents about 715,000 tons of raw sugar, and has been an important factor in the reduction of Cuban stocks. The current six months will not show anything like the above quantity, but *Facts About Sugar* is of opinion that a total of 1,000,000 tons for the year will be reached.

* * *

SIR GEORGE B. HADDON-SMITH, K.C.M.G., has had his term of office as Governor of the Windward Islands extended for one year. Sir George assumed office as Governor in December, 1914, and an extension of two years was given to him in the spring of 1921. It will be recalled that in his recent report Mr. Wood stated that if anything was to be done in the matter of a closer association of Trinidad and the Windward Islands, it should be done at once, as the Governor was due to retire at the end of the present year.

* * *

SIR DANIEL TUDOR, K.C., who has been Chief Justice of the Bahamas since 1911, has left that colony to take up his new appointment as Chief Justice of Gibraltar. In doing so he will break a connection with the West Indies which has lasted since 1903, when he became Attorney-General of Grenada and St. Vincent. Between 1907 and 1910 Sir Daniel on different occasions administered the Government of both these colonies, whilst he was also responsible for the revised edition of the *Laws of Grenada*, which was published in 1911.

* * *

IN connection with the forthcoming sale of enemy properties in the Cameroons, to which reference was made in last issue, it will be of interest to know that the cacao and other plantations, to be offered by auction by Messrs. Hampton and Sons on October 11th and 12th next, have been in the charge of Mr. Frank Evans since 1915. Mr. Evans, it will be recalled, was for some years in Trinidad, where he filled the position of assistant to the late Mr. J. Hinchley Hart, and was in charge of the Botanical Department after his retirement.

* * *

A SCHEME for the reorganisation of the Acadia Sugar Refinery Company of Canada was decided on at an extraordinary meeting of shareholders, held at Halifax, on July 27th. The scheme involved a reduction of capital of \$1,000,000, and provision for a working fund of \$1,000,000. The

plan also involves the surrender and cancellation of shareholders' present holdings, coupled with subscription by them to the extent of 20 per cent. of their present holdings in the form of mortgage debentures, the amount not to exceed \$1,000,000. It was stated at the meeting that the refinery at Halifax was working almost at full time with an output of over 400 tons a day.

* * *

SIR WILLIAM ALLARDYCE, K.C.M.G., has been appointed Governor of Newfoundland in succession to Sir Charles Alexander Harris, K.C.M.G., C.B., C.V.O., who is about to retire. Sir William Allardyce, it will be recalled, was Governor of the Bahamas from 1915 to 1920, while Sir Charles Harris was Secretary of the West India Royal Commission of 1882, Assistant Secretary to the International Sugar Bounty Conference of 1887, and was attached to the Attorney-General's staff in Paris during the Venezuela Boundary enquiry, having been specially detailed to prepare the case of His Majesty's Government. From 1898 to 1909 he was Principal Clerk at the Colonial Office.

* * *

WHAT is the highest waterfall? asks *The Times* on August 21st. A distinction has to be drawn between the broad voluminous type, like Niagara, in which a wide river roars over a precipice, and the slender "bridal veil" type, familiar in mountainous districts. Of the former, the Kaieteur Fall, the height of which is usually given as 822 ft., stands easily first, although the Woolloomumbi, about 900 ft. high, in New South Wales, is excluded only on account of its lesser volume. In the "bridal veil" class, Mr. F. E. Matthes, of the U.S. Geological Survey, awards the palm to the Yosemite Falls, where the waters of the Creek River descend a vertical distance of 2,565 ft. in two leaps, the first of which measures 1,360 ft. in height.

* * *

CHERISHED traditions regarding snakes are shattered by Mr. G. Aylmer in "Sierra Leone Studies." A snake, he says, has no movable eyelids, and the eye is protected by a transparent scale, similar to a watchglass, which is regarded as representing the lower lid. This gives that perpetual stare which is supposed to exert a fascinating influence over birds and animals. This, however, is not the case, all birds and most animals showing no sign of concern in the presence of snakes, so long as the latter remain quiet and do not strike at them. The belief that snakes are influenced by music is also erroneous. It is doubtful if they can perceive any but the loudest sounds, and even to these they show no reaction. The music of snake charmers is more in the nature of an accompaniment, and the swaying of the cobra is purely a natural habit and has nothing to do with the music.

GUAVA FOOL.—Peel some very ripe guavas, and press them through a hair sieve. Add enough milk to make a thick cream; then sweeten to taste and ice well.

AN EDUCATIONAL MAP.

Mr. Edward Wood, M.P., in his recent report, laid great stress on the necessity of pupils in the schools in the West Indies being made familiar with the history, geography and tradition of their own homes. No better means of instilling into the rising generation a knowledge of geography of the West Indies could be found than by displaying The West India Committee's new map of the West Indies in every college and school in those colonies. Measuring 48 in. by 37 in., with a scale of 35 miles to the inch, the map forms a valuable compendium of information regarding the Caribbean area. It is already used in the principal banks in the West Indies, and should be found in every mercantile office and social club. The main features of the map, which has been aptly described as "more than a map," having regard to the statistical information it affords, and the trade returns, cables, wireless stations, etc., whose position it shows, have already been given in these columns.

It may be recalled that it extends from Tampa, Florida in the north, to the extreme southern boundary of British Guiana, and east to west from Paramaribo to Guatemala. Besides a general map of the West Indies which occupies the centre, there are along the lower end of the map insets of the islands showing principal towns, highest mountains and largest rivers. In the upper right hand corner is a small map with the different routes from Canada, United States to Panama and West Indies. Alongside of this in a statistical diagram is given the area and population of the various islands. There is also a plan of the Panama Canal. In addition to this the submarine cables, wireless stations are clearly indicated, as well as the coaling and oil fuel stations.

The price of the map, which is obtainable from The West India Committee, 15, Seething Lane, London, E.C.3, is as follows:—

Sheet	7/6	Post free	U.K.	8/6
			Abroad	9/6
Mounted and folded . . .	15/-		Post free	15/6
Mounted on rollers . . .	12/6	Carriage free	U.K.	14/-

Hitherto it has not been possible to quote for delivery of the "mounted on roller" copies in the West Indies, since it is too large to be despatched by parcel post; but by arrangement with the Harrison Line and Messrs. Elders & Fyffes, it can now be delivered in any West Indian island at 10/- carriage free.

THE following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C.3:—

"The Manufacture of Cane Sugar," by Jones and Scard; 26/-.

"The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/-.

"Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.

"The Cane Sugar Factory," by F. I. Scard; 3/-.

"The Pocket Guide to the West Indies"; 7/6.

"West Indian Tales of Old," by A. E. Aspinall; 8/-.

"The British West Indies," by A. E. Aspinall; 9/6.

"Historic Jamaica," by Frank C. Cundall; 8/-.

"A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6. These prices include postage.

AUSTRALIAN SUGAR.

The protective duty on Queensland raw sugar under the Federal tariff is £6 per ton, and it has never been higher. When the introduction of Kanaka labour in connection with the industry was abolished by the Commonwealth Parliament, an excise duty of £4 per ton was levied on all Australian-grown sugar, but £3 per ton was refunded in the shape of a rebate in respect of all sugar grown by white labour. This excise duty, less the rebate, says *The Times*, in the course of an interesting article on the Queensland sugar industry, resulted in the Commonwealth netting some £2,400,000 out of the industry during the time that duty was in force. When the price of sugar rose enormously in most countries, the Australian consumer during the whole war period paid only 8½d. per lb., whilst the Australian grower obtained but £16 to £21 per ton for the raw sugar which he produced. It was not till 1920 that the present price of £36 6s. 8d., provided for under the much-discussed agreement, was paid. This was done to encourage Australian production. The supplies of home-grown and imported foreign sugars were then pooled and sold to the public at 6d. per lb., which is still the fixed price. The Australian producer, however, received only the equivalent of 8½d. per lb. for his raw sugar, the difference between this and the selling price (after covering cost of refining and handling) going to make up for the loss to the Government due to the higher prime cost of the foreign sugar which had to be imported by it to make up the deficiency in the home supply. It has been admitted by the Minister for Trade and Customs that the sugar industry of this country has more than repaid the Commonwealth for any advantages it has received.

There can be no question that the object of the agreement—to stabilise the industry and encourage production—has been fully realised. The sugar farmers generally have put new areas under cane, utilising in many cases land that had been lying idle for years; more fertilisers have been purchased and used; millers have improved and extended their crushing and manufacturing plant, and further expansion is in progress. During the past two years there has been put into the sugar mills of Queensland new capital to the amount of £1,250,000, and every endeavour has been made by the mill-owners to render their plant as efficient as possible.

Our contemporary goes on to say that whilst there appears to be little prospect at present of a profitable export trade, it cannot be doubted that, with reasonable assurances as to the future, the necessary expansion to provide for the increasing needs of Australia will continue. Much, however, depends on the action of the Commonwealth Government and Parliament in the winter session. The demand of the consumer is for cheaper sugar, and once the Government has cleared off the accumulated deficiency due to the purchase of foreign sugar at high prices (which was refined and supplied to the public at a fixed rate of 6d. per lb.),

(Continued at foot of next column.)

CANE-GROWING IN LOUISIANA.

The Cost and the Loss.

An interesting account of the cost of growing canes in Louisiana for the 1921-22 crop, and of the financial results thereof, is given in *Facts about Sugar* of June 10th last. The figures relate to six plantations growing canes for a neighbouring factory, and the only crops commercially grown were canes and corn, legumes also being planted for the purpose of green manuring, mostly in conjunction with the corn, but also to a small extent by themselves.

The canes were sold at 90 cents per ton—it is presumed the short or American ton is used—for each cent per pound fetched by "clarified yellow sugar," and this method appears to have yielded \$3,607 per ton. The corn was sold to the "feed" account of the estates stock at 50 cents a bushel over cost prices, and the cane growing account credited with the proceeds. The rates paid for men's wages were:—From February 1st to October 15th, 1920, \$1.75 per day; October 16th to January 10th, 1921, \$2.25 per day; from January 11th to October 15th, 1921, \$1.00 per day, and from October 16th to January 10th, 1922, \$1.25 per day. The total area planted in canes was 2,286 acres, of which 51 per cent. was in plants, and in corn 1,582 acres, 331 acres being planted in legumes alone.

The indirect cost, which comprised all overhead and other charges, including interest on working capital but not that on investment, of the canes was \$111,739.92, which, with the cost of corn cultivation as above added, and the proceeds of the corn sales, \$16,734.45, deducted, brought the net indirect cost to \$109,632.61. The total net cost of the canes, therefore, was \$234,620.37 or \$102.63 per acre. The quantity of canes reaped and sold was in all 46,480.97 tons, consisting of 28,105.59 tons of plants, 10,281.38 tons of ratoons and 8,094 tons of seed canes. The cane cost was therefore \$5.05 per ton.

The canes fetched in all \$168,880.15 or \$3.68 per ton, producing a loss per ton of \$1.42. To this had to be added \$0.61, the interest on investments on land, building, etc., at 6 per cent. having been \$22,375.86, and on tools and implements at 8 per cent. \$6,283. The total net loss was, therefore, \$2.03 per ton.

An editorial note on the subject says:—"The continuance of the Louisiana sugar industry depends on producing more and cheaper sugar to the acre. . . . The opportunity for agricultural improvement in the Louisiana sugar belt is just beginning to be appreciated."

(Continued from previous column.)

the retail price can and will be reduced. Without lowering the present price to the Australian producer, refined sugar could be retailed for about 5d. per lb.; but this may not satisfy the consumer and the manufacturers using sugar in their business, although the latter are getting a rebate of £20 per ton on sugar used in manufacture.

MILL EQUIPMENT IN HAWAII.

In connection with the Report of the Hawaiian Committee on Mill Equipment, Mr. H. S. Walker, Superintendent of the Pioneer Mill Company, said: "I think that most of the improvement in extraction at Pioneer in the last ten years has resulted directly from additions or improvements to the mill. Our extraction with a 9-roller mill in 1905 was reported as 94.93. Seven years later it was only 94.87. Following the change to a 12-roller mill for the 1913 crop, extraction went up to 98.13. Messchaert grooves, put in gradually during 1914 and 1915, had very little influence on the extraction, as it was only 96.32 in 1915. The effect of the grooves seems to have been to allow about 20 per cent. more cane to be ground than formerly without a loss in extraction. The shredder was used during only part of 1916. The combined influence of Messchaert grooves and shredder increased the extraction a little over 1 per cent. from 1913 to 1917. During the next two years no changes were made in the mill, and there was very little gain in extraction. The change to a 15-roller mill in 1920, with a wider crusher and better shredder, resulted in a gain of 0.67 per cent. in extraction at a 9 per cent. faster grinding speed. With the same equipment in 1921 extraction fell back 0.27, though the average tons cane per hour was a little more. Nineteen twenty-one was an exceptionally bad year, both for milling and boiling house work, owing to the prolonged grinding season and the considerable amount of dried-up cane ground."

CANE DISEASE IN PHILIPPINES.

Judging from an article in *The Transpacific Magazine*, by Mr. E. H. Taylor, there appears to be considerable anxiety in the Philippines on account of the increase in the amount of disease among the sugar canes there. The cause of this seems to lie in the introduction of canes from other countries. Up to recent years the native varieties of canes were universally grown, which did not suffer from cane pests or diseases. These, however, probably on account of the yield being less than in other countries, did not continue to give satisfaction to the Philippine planter. Foreign varieties were imported, chosen for their greater productive qualities, quicker growth, and greater sugar content. But these varieties have not proved themselves so resistant to disease as the native cane, and considerable loss has resulted therefrom.

The two principal diseases in the Philippines are the "Fiji" disease and a recent importation from Formosa to which the name of the "leaf-stripe" disease has been given. The former seems to have appeared in the Philippines within the last ten years, and at once started on its path of destruction, particularly among the imported varieties. This disease is caused by a fungus whose native heath is probably New Guinea. It reached Fiji and did much damage there, and arrived in the Philippines about 1916. The disease may be recognised by the crumbling of the leaves as they emerge from the

centre of the stalk, and a feature is the presence of characteristic galls on both healthy and diseased leaves.

The "leaf-striped" disease was imported by Japanese planters from Formosa, in spite of the quarantine existing against foreign canes, owing to the laxity of Customs officials. It is hoped, however, that from the measures taken the disease will not spread beyond its present area.

The average Philippine planter, Mr. Taylor states, is quite willing to spend money on experiments leading to the more thorough extraction of the juice from the cane, and feels that he has scored a triumph if he gains one per cent., but is reluctant to do so on research tending to increased production by the elimination of the various diseases, which take a yearly toll of from 1 to 10 per cent.

Only a single ratoon crop is obtained in the Philippines, owing, it is stated in the article, to insect pests increasing so rapidly with each succeeding crop that ratooning ceases to be profitable owing to the loss of canes from these causes.

VALUABLE SUGAR BOOK.

Committee's Publication Appreciated.

Professor Ling, F.I.C., of the University of Birmingham, contributes to *Nature* of July 1st a review of *The Manufacture of Cane Sugar** recently produced by THE WEST INDIA COMMITTEE, in which he says:—

"The first edition of Messrs. Jones and Seard's treatise was published in 1909, and the fact that a second edition has now appeared is a fitting testimonial, if one were needed by two such eminent and well-known technologists, of its utility as well as of its appreciation by technologists. Mr. Aspinall in the introductory chapter tells us that the first impression of the work was soon sold, and that the authors preferred to prepare a new and revised edition instead of issuing at once a reprint of the first edition.

"The work as now presented is in its original form, but it has been thoroughly revised with some 27 additional pages of text and 26 further illustrations. The volume is a welcome addition to the literature, more especially from the technological point of view. A special feature is the large number of well-executed drawings and plans, numbering in all 270, for which the authors are indebted to the leading engineering firms.

"The work will be found indispensable to all engaged in the industry, and we welcome its appearance at a time when it behoves sugar-cane technologists, more especially in the British Dominions, Dependencies, and Protectorates, to cultivate the highest efficiency in their subject, and make the Empire self-supporting as regards sugar. This is a matter which, in the writer's personal knowledge, one of the authors at least, Mr. F. J. Seard, has long had at heart."

**The Manufacture of Cane Sugar.* By Llewellyn Jones and Frederic J. Seard. Second revised edition. Pp. xix+481+270 plates. (London: Duckworth and Co., 1921.) 25s. net.

OPTIONAL BILLS OF LADING.

And the Preference on Cacao.

The following further correspondence has passed between THE WEST INDIA COMMITTEE and the Board of Customs, regarding the allowance of Preferential rates to West Indian produce shipped to this country on Optional Bills of Lading. Previous letters on this subject were published in "THE WEST INDIA COMMITTEE CIRCULAR" of April 27th, page 185.

The West India Committee,

June 15th, 1922.

SIR,—I beg to inform you that your letter 21,323/23 of May 12th, together with our earlier correspondence



Photograph

by Russell.

British Guiana's Governor Designate.

Sir Guene Thomas, K.C.B., who is due to succeed Sir Wilfrid Collet, K.C.M.G., in April next.

on the subject of the admission of cocoa shipped from British Colonies on Optional Bills of Lading, was laid before a meeting of my Executive held on Thursday last, June 8th.

They note with much regret that the Commissioners of Customs and Excise have not as yet seen their way so to modify the regulations that goods shipped from British Colonies on Optional Bills of Lading and imported into the United Kingdom, shall be admitted to preferential treatment under the Customs Tariff.

As we have already pointed out, it has for long been a necessary custom of the trade for cocoa and coffee to be shipped on optional Bills of Lading, and the withholding of the preference in cases where goods so shipped have of necessity to be transhipped in a foreign port, is a serious injury to the shippers in the West Indies and neutralises to a great extent the benefit which the preferential duty was intended to confer on them. In this connection I should point out

that only recently the Royal Mail steamer *Gréboza*, which sailed from Jamaica on November 15th last, was compelled to tranship her London cargo at Hamburg, whilst the company have notified consignees that the cargo declared for London by the steamer *Teviot* which left Jamaica on May 6th last, will probably have to be transhipped at Antwerp. That British goods shipped by these steamers under optional Bills of Lading and ultimately destined for a United Kingdom port should in such cases be deprived of preference, is, we venture to assert, an injustice to the shipper.

From the economic point of view the system of optional Bills of Lading is one to be encouraged as it provides the merchants with the means of avoiding overstocking the home market, thereby annulling all advantage from the preference, for, as regards the re-exportation of such surplus stocks, it is notorious that the heavy landing and reshipping charges in United Kingdom ports severely handicap such business in competition with foreign cocoas of similar character going direct to a foreign port.

In the circumstances I am to request that this matter may be re-opened and that it may receive the further consideration of the Commissioners of Customs and Excise.

I am, Sir, Your obedient Servant,

ALGERNON ASPINALL, *Secretary.*

SIR,—In reply to your letter of the 15th June (8,868), with reference to the admission to preference of Cacao shipped from the British Colonies on optional Bills of Lading and transhipped at a foreign port, I am directed by the Commissioners of Customs and Excise to acquaint you that the case advanced by your Committee for the grant of preference in respect of transhipped consignments has again been reviewed in consultation with the other Departments concerned, but it is regretted that it is not possible to agree to any modification of the existing practice, under which preference is allowed only in the cases specified in the letter from this Department of the 20th April last.*

I am, Sir, Your obedient Servant,

JOHN L. MACKIE.

* [That is, "where Empire goods are imported from a port of the Empire in the ship in which they were loaded at the Empire port of lading, where the ship comes direct or via foreign ports, provided that in the latter case the goods have not been removed from the ship."—ED.]

CHOCOLATES AND CINEMAS.

Important newspapers in Germany, says *The Confectionery Journal*, are carrying on a campaign against so much sugar being used in the manufacture of confectionery and chocolates, the general public being deprived thereby of the benefit of cheap sugar, children especially not receiving so much sugar under existing conditions as they did under the card system. Now chocolate and sweetmeat shops are appearing in the streets, and the newspapers call for a heavy tax upon them. Although cacao beans have to be paid for in hard cash, the sale of chocolate in Germany has risen from 52,000 tons in 1913 to 127,000 tons in 1921, with a much diminished population. In this connection, it appears to *The Confectionery Journal* that a perfect orgy of chocolates and kinemas is in progress in Berlin, dissipation in the latter no doubt leading to intemperance in the former.

CHOCOLATE MANUFACTURE.

The following remarks regarding the keeping qualities of chocolate are made by Mr. F. E. Thomas in an article appearing in the "Confectionery Journal" of August 17th:—

Let us consider the nature of chocolate, and we will take the simplest case, that of bar chocolate, which, if properly made and properly cared for, ought not to show bloom at all, or only after very prolonged periods. Chocolate as put on the market consists, alas! of a good many things, but we will assume that the chocolate we are considering contains only cocoa mass, added cocoa butter, sugar and flavouring. There are a large number of different substances in nibs, some in very small quantities, but of real importance in deciding the flavour and aroma of the resulting chocolate. We will be modest, and say that in our chocolate we have at least ten different (i.e., chemically different) substances present in amounts which must be taken into consideration. Now, all these substances have different properties, and are affected to very different extents by such ordinary factors as heat and water, e.g., some liquefy very easily, such as fats, some only at high temperatures which are normally not reached, such as sugar. The reason why chocolate melts in the mouth is because the cocoa butter contained therein melts at blood heat, and carries with it into the liquid mass those substances, such as sugar, which are still solid at that temperature. The object of the chocolate manufacturer is so to mix his ingredients as to produce an intimate and homogeneous mixture of substances which, *be it noted, do not easily mix*, owing first to the fact that they liquefy at different temperatures, i.e., have different melting points, and, secondly, owing to their nature—water and oil, although both liquids, will not easily mix, and the chocolate factory has a problem of the same kind, but not perhaps the same degree, to face.

When the manufacturer has, by careful manipulation and by passing his paste through a whole series of processes, produced his chocolate, it is in a certain state, which cannot be regarded as stable unless it is kept in the right conditions. For instance, suppose the chocolate to be exposed to a moist temperature. A certain amount of water will condense on the surface of the chocolate. A certain percentage of this surface consists of small particles of sugar: the water has an action on this sugar—it dissolves it—while it has none on fat. The result is that some of the sugar is dissolved out of the chocolate, and tends to concentrate in small drops. If subsequently exposed to heat or a dry atmosphere, the water evaporates, and small particles of sugar will be left on the surface of the chocolate, giving it a "sugar bloom," which might easily have been avoided, and is no fault of the manufacturer.

A similar thing happens when chocolate is exposed to the excessive heat of the sun. The fats melt or get into a semi-liquid condition in which they tend to percolate through the chocolate, eventually coming to rest on the outside surface, and on

(Continued at foot of next column.)

THE CAUSE OF CACAO THRIPS.

Conditions in San Thome.

In a paper read before the Trinidad Agricultural Society on July 18th, Mr. F. W. Ulrich, Entomologist of the Department of Agriculture of that colony, gave an interesting account of the cacao-thrips pest in San Thome, which he visited in 1919.

The thrips on the leeward side of that island, he said, were so numerous that the cacao leaves were actually black with them, although the soil conditions were good and there were no fungoid diseases.

The causes of this enormous multiplication of thrips, which are of the same species as those found in Trinidad, were: Climatic conditions, numerous species of food plants being grown besides cacao, want of wind breaks and overhead shade; and extensive prevalence of algal disease and general debility of the cacao trees brought about by faulty cultivation.

Wind breaks keep out thrips and shade trees prevent too much breeding in places where drainage and tillage are not done. There was a general absence of both in San Thome.

Faulty cultivation.—When cacao was first planted on virgin soil it grew and bore very well, but there was no system, distances were not observed, and several trees were allowed to grow at each stake, whilst in most cases the planting was too close. No special shade trees were planted, but the original forest trees, which were left for such, were in most cases unsuitable, besides having extensively powerful root systems. They were very tall, with small crowns. In many places, too, much of the original forest was felled, leaving ridges and steep hill sides bare and exposed to wind and erosion. Very little tillage or drainage was done. Under these conditions the trees were starved, and were easy victims to thrips and algal disease.

The conditions described are not universal; there are districts naturally protected with good soil that can show fields as good as any in other parts of the world.

AMONG the visitors to The West India Committee Rooms during the past fortnight have been the following: Mr. W. Gordon Gordon, Sir John Harrison, C.M.G., Hon. W. G. Kay, Mr. Dudley G. Leacock, Dr. G. I. Leconte, Hon. H. de Minvielle, J.P., and Mr. Leslie H. Ower.

(Continued from previous column.)

cooling down the fat is left on the surface as a pale yellow or whitish solid. Again, an avoidable occurrence. Badly made chocolates will, we know, bloom even if reasonable care be taken, but in the present state of knowledge it seems definitely settled that manufacturers can put on the market chocolates which will not bloom, at any rate, for the period within which they might reasonably be sold, and it must be disheartening to have their efforts neutralised by inattention on the part of the retailer.

TRADE WITH CANADA.**Trade Commissioner's Report.****Report of the Manufacturers' Party.**

The Canadian Manufacturers' Association, at their annual meeting from June 20th to 23rd, passed a number of resolutions dealing with the problem of increasing the trade between Canada and the British West Indies, with special reference to the visit paid to the Caribbean Colonies by a party of its members in the spring of this year. The Association finds that trade has improved considerably between the Dominion and the Colonies since the Trade Agreement of 1920 came into force, but that it is capable of considerable further expansion. They have therefore empowered Mr. W. S. Fisher, who headed the party, to appoint a special committee who will give exclusive attention during the coming year to the study of the trade relations between Canada and the West Indies. They further urge the Dominion Government to provide adequate steamship passenger and refrigerator accommodation for the West Indian service.

In their report on their visit, the Manufacturers' party state that they were impressed by the way in which Canadian flour millers had practically gained control of the British West Indian market, which they attribute to the system of appointing good agents at every point, combined with periodical trips by representatives from headquarters. They go on to state that it is not generally appreciated that these Colonies possess practically nothing in the way of manufacturing industries except those which operate on the products of the soil which they export. They found that all business is conducted in the West Indies very much along the same lines as in the Dominion so far as the extension of credit is concerned, and the risk of doing business is no greater there. In most lines New York was an active competitor, being particularly resorted to by firms in the smaller islands, who are attracted by the convenience of including in one order a variety of small purchases. During the tour references were made at nearly every point to the late arrival of documents covering shipments from Canada—a matter to which, the report states, special attention should be given.

In regard to transportation arrangements, Canada is in a relatively favourable position, United Kingdom exporters being greatly hampered by the absence of regular steamship facilities. Nevertheless, throughout the islands people are looking forward to the improved services contemplated by the Canadian Government, which will give a decided impetus to the business relations between the two parts of the Empire. The report further recommends Canadians to travel far more in the West Indies, and calls attention to the lack of Canadian news in the Press of those Colonies as contrasted with the prominence given to American happenings. From the West Indian standpoint, the manufacturers state that they found a general feeling throughout the Colonies, with the exception of British Guiana, that Canada was not buying enough from them, and they recommend an increase of direct buying instead of purchases of West Indian products through New York.

In a communication to the *Commercial Intelligence Journal* of the Canadian Department of Trade and Commerce, Mr. G. R. Stevens, the Canadian Trade Commissioner in Jamaica, says: The old-established houses, which make up the backbone of West Indian commercial life, present a peculiar problem to the Canadian exporter. They constitute the class distributors whom he is most anxious to reach. However, if he appoints one of these houses as his representative, he is automatically precluded from further connections with any of the others as these old-established houses make it a point never to buy from each other if it is possible to obtain supplies elsewhere. In addition, an agency placed with such a house in many cases means that no excessive canvass will be made in the interest of the Canadian manufacturer's goods. These houses have their own clientele which comes to them for their wants, and the manufacturer may be reasonably sure of supplying one set of retail customers and possibly a few others. Therefore in many cases the Canadian manufacturer passes by the old-established houses and appoints a manufacturers' representative who will cover the entire trade in his behalf. But this unfortunately serves to preclude him from any sales to any of the old-established houses; these latter import direct, and they are as proud of not paying commissions to local agents as they are of refusing to buy from each other. This extreme individuality places the Canadian exporter in the position of having to take his choice between what an agent may possibly do for him in the large field and what one of the old-established houses will assuredly do for him with a comparatively restricted custom.

Another difficulty in catering to West Indian trade arises from the extremely small scope which each colony offers. In reality each colony can only take from the average Canadian manufacturer about as much as a first-class retail account at home. All business is done in small parcel orders which are a nuisance to the Canadian exporter and to the West Indian importer alike. As an illustration the case of a West Indian hardware merchant may be taken. To keep his stock up, the hardware merchant probably needs small quantities of perhaps 50 to 75 different lines manufactured by perhaps 30 to 50 different concerns. If this hardware merchant is to place his orders through local agents, it means searching out a large number of these agents and placing a little bit of business with each. This is a great bother, as it means separate payments, separate packages, separate customs clearances, and the arrival of stock over a considerable period. If on the other hand the hardware merchant imports direct from each manufacturer, it means even more bother, as he has the entire work of forwarding separate orders over and over again for small quantities of supplies.

On account of such difficulties the established general merchants of the West Indies, together with a large and growing class of importing retailers, prefer to do their business through indent agents in

New York and London. They simply forward an order for every class of supply which they require; the indent house does their business for them and the goods come properly handled in one shipment. There is a minimum of documentation; the supplies arrive together; their packing and invoicing is certain to be correct; and for this service the indent house almost invariably charges a smaller commission than a manufacturers' representative or brokerage house.

NIPA PALM SUGAR.

No Rival to the Cane Product.

From time to time the question of the manufacture of sugar on modern lines from the nipa palm, *Nipa fruticans*, is brought forward as a commercial proposition, hitherto the industry having been confined to the manufacture by natives of a crude product for family use or the local market. The portions of the palm used for the purpose are the stems of the flower and of the fruit, and the manner of procedure in Sarawak is as follows:—

The palms grow wild, and the manufacturer selects the area which he intends to work, clearing away undergrowth and impedimenta calculated to prevent free access to them. He then builds his factory, which consists of two coppers, or large cauldrons, set in brickwork and arranged for underneath firing, and a hole in the ground made to receive the copper when the time comes for "oscillating" with a long ladle the concentrated syrup. The factory having been thus erected, a number of one-foot lengths of three-inch bamboos are prepared for the purpose of collecting the juice.

Everything being now ready for the crop, and it being the flower and not the fruit season, the outer skins are peeled from the flower stems, an operation which takes about two days to provide material for the ordinary sized manufacturing plant. The stems thus treated are then bent over, and the flowers cut off. In the evening the bamboo collectors are placed under the cut end of the stems, and during the night the sap flows into them to the extent of half filling the bamboos, or more, but generally the former. In the morning the bamboos are collected, and a thick slice cut off the end of the stems to prevent drying up during the day. In the daytime no collection is made, bees, hornets and monkeys taking over the situation. In the evening another slice is taken off the stems and the bamboos fixed for the next collection. This process continues for about four months, from August to December, until nothing is left of the stem.

Instead of dealing with stems during flowering, the palms are sometimes allowed to fruit, and the fruit stems manipulated in a similar manner to the flower stems. The process, which is carried out between January and August, is, however, much more tedious, and the "flower" reaping is preferred.

The filled or partly filled bamboos, having been collected, are carried to the factory, and their contents emptied through a strainer into the cauldrons. Here the sap is boiled, a wall of bark about 3 feet

high being fitted round the edge of the cauldron to prevent loss from boiling over. The empty bamboos are kept "sweet" by being placed near the fire to dry before being again used.

The concentration of the sap takes about five hours, and when it has been carried out sufficiently each cauldron is removed to its hole in the ground and its contents stirred for about an hour to start crystallisation. The concrete sugar thus made is then transferred to tins or jars for cooling, setting, and subsequent use. It is stated that two hundred of the bamboo charges will yield about three gallons of the product.

It is evident from the above that sugar from the nipa palm is never likely to be a serious competitor with that from the sugar-cane. The industry is especially adapted to industrious peasants, who place no especial value on their time and are content with a product that is primitive, but not the less toothsome or nutritious on that account. But as such the industry is of considerable value, inasmuch as it adds to agricultural production, and is thus a useful agricultural asset in a well-populated tropical country.

VITAMINES AND THEIR SOURCES.

An important article on the subject of vitamins appears in the Journal of the British Dairy Farmers' Association (1922 vol. xxxiv.). Its author is Dr. Harden, of the Lister Institute, one of the greatest authorities on the subject. He gives an account of the three recognised vitamins, the fat-soluble "A," the water-soluble "B," and the water-soluble "C."

The effect of the absence of "A" from food is retarded growth, ending in death, and eye disease. It is also an important factor in the causation of rickets. The absence of "B" causes retarded growth, ending in death as in "A," beri-beri, and paralysis in birds and rats. Scurvy is caused by the absence of "C."

The best and usual sources of "A" are fish-liver oils, green plants, including clover, lucerne and hay, butter, cheese and milk, egg yolk, animal fats, and some roots, such as carrots, parsnips and mangolds. The best sources of "B" are seeds and grains, particularly in the germ and outside layers of cereals, yeast, egg yolk, milk, green plants, including clover, lucerne and hay, and many roots and tubers, e.g., carrot, potato, turnip, mangold and beet. Of "C," the usual and best sources are green vegetables, especially of the cabbage tribe, orange and lemon juice, swedes and turnips, germinated seeds, tomatoes and milk.

The vitamins are present in small quantities—"A" in oil seeds, oleomargarine in proportion to the presence of animal fats, and cereals; "B" in meat, some fruit juices and cheese; "C" in meat, many tubers and roots, many fruit juices and dried vegetables.

In the case of "A," vitamins are entirely absent from white flour and bread, most vegetable oils, most lard, most margarine and yeast; of "B," from white flour, polished rice and fats; of "C," from seeds and grains, white flour and bread, fats and yeast.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

NEW VARIETIES OF COCONUTS.

During 1920, the Imperial Department of Agriculture for the West Indies received requests from several of the West Indian islands for the introduction from different parts of the tropics of notable varieties or types of coconuts, particularly the "Dwarf" coconut of the Federated Malay States. In response to these requests, and believing that it would be of much advantage to have a general collection of types in the West Indies, the Imperial Commissioner wrote to the Director of the Royal Botanic Gardens, Kew, suggesting that Kew might communicate with the various agricultural authorities in the different tropical countries, with a view to obtaining for the West Indies a supply of the main types of coconuts of economic value at present recognised. As a result, in July, 1921, a supply of "dwarf" nuts and of nuts marked "red" and "green" were received from the Director of Agriculture, Federated Malay States, and these nuts were distributed from Barbados to all islands under British administration between Trinidad and St. Kitts, where they were taken charge of and planted by the resident agricultural officers.

Next month a quantity of nuts were received from Malabar, Southern India. These consisted of two varieties or types: the "Nicobar" and the "West Coast" variety. Some of each were likewise distributed. In March of the same year 50 sacks of the famous San Ramon nuts were received from the Director of Agriculture, Philippines, and likewise forwarded to each Colony. During the present year a further interesting supply of coconuts was received from the Director of Agriculture, Ceylon. These consisted of eight varieties from a private collection of trees in Ceylon, all of which were sent to Trinidad, it being felt that the best procedure is first to establish a collection in one island. Trinidad, for several reasons, was considered the most appropriate. In course of time other varieties of nuts are likely to be received, and the collection in Trinidad is likely to become one of considerable interest and importance.

Unfortunately, the viability of the coconut is not as great as one might think from its exterior. The Malabar nuts sent to St. Lucia and Antigua, for example, failed to germinate; many of the other nuts, when received in Barbados, had started to sprout, and when planted out some of them died back. But a fair proportion of the nuts received have been successfully raised, and in due course should afford, as already stated, an interesting and important collection for study and comparison not only amongst themselves, but with West Indian types. It may be noted in this connection that the best-regarded type in tropical America is the San Blas nut of Panama, which is a small nut with a large percentage of "meat." This variety, which should be included in the Trinidad collection, is

under cultivation in some of the West Indian islands.

THE QUESTION OF SILAGE.

In Tortola and the other Virgin islands, the cattle industry suffered during the first half of this year from dry weather. Owing to the failure of pastures, cattle had to be sold below their value. Now comes the information that the demand has fallen off altogether, especially in respect of the St. Thomas market. Stock-owners in Tortola have much stock on hand which is unsaleable.

In connection with stock-feeding in times of drought, the success of the recent silo-pit experiment in Barbuda is interesting and important. A pit 35 feet long by 15 feet wide and about 2½ feet deep was filled with cut Guinea corn stalks and Guinea grass on February 20th last. The pit was covered the following day, being topped up to the height of about 5 feet. A week later, when shrinkage had taken place, some more earth was placed on the top. The pit was opened on June 9th last, and the silage was fed about every other day to forty-five cattle until July 10th, when it was finished. The cattle ate the ensilage readily, and, after the first morning, were found waiting at the pit for the ration to be issued. It was, however, noticed that the animals preferred the Guinea corn stalks to the Guinea grass. It is estimated that the cattle consumed the ensilage at the rate of 1½ cubic foot per head per day.

Silos, as is well known, are regarded as important adjuncts in the dry zone of Jamaica, and the Department of Agriculture of that Colony has clearly demonstrated their value; even Antigua has silos. These, however, are tower silos. The pit-silo which is referred to above is of special interest and importance because it does not entail anything like as much capital outlay as the tower variety, and is therefore within the means of even the smallest livestock owner of the most diminutive island.

A BOON TO THE BAHAMAS.

PROHIBITION in the United States is a great boon to the Bahamas, said Sir Daniel Tudor, in the course of an interview with the correspondent of the *Daily Telegraph* in Montreal. Officially said Sir Daniel, the American drought had not affected the Bahamas, but, as a matter of fact, as is well known, enormous quantities of liquor imported into these islands eventually find their way to American cellars. A curious feature of the rum-running traffic, Sir Daniel Tudor remarked, is the revival of the ancient piracy business of the Spanish Main, with the difference that to-day, instead of pirates attacking galleons laden with treasure, they are directing their attention to attacks on venturesome rum-running crafts containing almost equally valuable cargoes of spirits, ship-sinking frequently resulting from these small sea battles.

Sir Daniel did not point out that the Colony's motto is "Expulsis Piratis Restituta Commercium." Now, however, it would appear that the revival of commerce synchronises with the return of the pirates!

TREATMENT OF PELLAGRA.

Experiments in Barbados.

Of the various theories as to the cause of Pellagra, or Psilosis Pigmentosa, that propounded by Dr. Louis Sambon, who attributed the disease to a particular species of fly, for long held the field. Now, however, Professors Scala and Alessandrini, of the Institute of Tropical Hygiene of the University of Rome, have concluded as a result of their researches that Pellagra is an acid intoxication caused by silica in colloidal solution in the water supply, which must have its origin in a clay soil or pass through it.

Through the instrumentality of Mr. Joshua Baeza, practical tests have been made in Barbados of the treatment advocated by the Italian Professors in the light of this view. The treatment consists of a ten per cent. solution of trisodium citrate injected intramuscularly with no change of diet, except that the patients are required to drink freely of lime-water. By arrangement with the Poor Law Guardians and with the consent of the patients, a trial was made with the pellagrins in the shushouse, who were divided into two groups. Trisodium is not to be obtained in Barbados, so that sodium citrate had to be substituted. Of the twelve pellagrins in group "A" who were given sodium citrate (females intravenously, males orally), with ordinary diet, by June 30th, seven had been discharged as cured, one had improved, one was still in the Institution, and three died. Group "B" were given the usual pellagrous treatment, that is, a more nutritious diet, with cod liver oil and other tonics. Of the seven in this group, two were discharged as cured, one showed slight improvement, three had not improved, and one died.

Some of the above results were complicated by the presence of syphilis. Although not at present conclusive, they appear distinctly encouraging, and the progress of the further experiments which are being carried out, will be watched with the greatest interest.

BRAINS AND BANANAS.

There was once a popular idea that a fish diet was specially good for the brain; but that was exploded by science long ago. As a matter of fact, the phosphorus in fish does service to the joints and not to the head. The one merit that fish possesses is that it is easily digested, and blood is not therefore drawn from the brain to aid the digestive organs.

By an alliterative coincidence the three things which physicians hold to be best for the brains are, says the *Kalamazoo Star*, bananas, bacon and brushes. Bananas have in them that which directly feeds the grey matter of the brain. Their content of sugar is excellent. Sugar, in any form, is energising to the body, and as brain and body are closely allied, anything which reduces bodily fatigue helps the brain. Mental workers know the heavy mental strain of working when the body is tired.

Bacon is said to be a good food for the brain-worker, because pork excites the imagination. A

(Continued at foot of next column.)

THE ROCKEFELLER FOUNDATION.

Facts and Figures of Tropical Disease.

Interesting facts concerning the increasingly successful world campaign against tropical diseases are revealed by a review of the Rockefeller Foundation's work in 1921, written by Mr. George E. Vincent, its President.

During his visit to Ecuador, Peru, and Yucatan in 1918 to 1920, Dr. Noguchi isolated the germ that is believed to be the inciting cause of yellow fever, preparing from it a vaccine and serum. Experience with these up to the end of last year indicates that the former, when properly administered, affords a marked protection against attacks of yellow fever, and that the latter, if used on or before the third day of the onset of the disease, reduces the mortality in a striking way. Thus in Peru, of a group of 50 non-immune soldiers who were being sent into an infected district, 25 were vaccinated and 25 were left unvaccinated. Of the latter group, 20 contracted yellow fever, whilst the former escaped entirely. Again, of 12 yellow fever patients in Belize who were treated with the serum on or before the third day, all but one recovered. Until yellow fever is eradicated at its source, the vaccine and serum promise to be the most valuable means of prevention and cure. The outlook is encouraging, says the report, although it is too early to proclaim a complete victory.

As regards hookworm, what can be effected by proper methods of control is shown by the story of an intensive campaign carried on in Virginia. When this was started in 1910, no fewer than 82 per cent. of the school children in that State were found to be infected. Fifteen months later, as the result of organised propaganda and treatment, the infection was reduced to 35 per cent. A third survey made last year showed the almost negligible infection of 2.2 per cent., the resulting change to the life and work of the community being unmistakable.

It is to be hoped that equally satisfactory results will attend the anti-hookworm campaign being waged in many of the British West Indian Islands, and notably in Jamaica. In this connection it is relevant to recall that according to the report of the Jamaica Hookworm Commission for June last, of 2,148 prisoners examined on admission to the St. Catherine District Prison, 71 per cent. were found to be infected. The United Fruit Company have set a useful example by appointing a full-time sanitary inspector for their estates in this area.

(Continued from previous column.)

well-known writer of exciting stories confesses that his inspiration comes from pork chops. So, bacon for the brain. There remains the brush. Probably nine persons out of ten scratch their heads when they feel a sort of temporary hold-up in the action of their brains. That is nature's stimulus to the grey matter. Rub your head and you bring the blood to the excited part. That is what your brain needs—more blood. Hence the vigorous use of a stiff-bristled brush will, by exciting the scalp, bring blood to the brain and invigorate it.

"So if you are a busy brain-worker, try bananas, bacon and a brush."

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

An important use for yellow palm oil, says "Agricola" in *Imperial Commerce*, is in the Welsh tinplate industry, where the oil, commonly mixed with cottonseed oil and certain mineral oils, is employed for coating the heated iron plates preparatory to the "tinning" process, with the object of preventing oxidation.

* * *

Excellent results have been obtained by Dr. Oscar Loew, of the Porto Rico Experiment Station, in the direction of the partial sterilisation of soil with commercial chloride of lime. An application at the rate of two tons to the acre had the effect of considerably increasing the crops with which the experiments were made.

* * *

Potash deposits said to contain many million tons of the crude mineral are being exploited in Spain. They exist in the Province of Lerida, and it is anticipated that not only will the whole of the potash required for fertiliser purposes in Spain be produced from them, but that there will be large supplies available for export.

* * *

The official forecast of the principal agricultural crops of India for the season 1921-22 gives the estimate for cane sugar as 2,592,000 tons; for cotton, 4,463,000 bales; for sesamum, 515,000 tons; for indigo, 60,000 cwts.; for ground nuts, 920,000 tons; for rice, 32,994,000 tons; for linseed, 434,000 tons; for rape and mustard, 1,142,000 tons; and for wheat, 9,818,000 tons.

* * *

One of the greatest forest products developments which has taken place in Canada of recent years has been the manufacture of paper pulp. In New Brunswick, 89,060 tons were produced in 1921, of which 82,350 tons were exported, and in Nova Scotia the production was 23,384 tons, of which the entire amount was exported. Altogether about two thousand men were employed in the industry.

* * *

Canada supplies at the present time between 85 per cent. and 90 per cent. of the world's supply of asbestos. The deposits occur in the Province of Quebec, in a long and narrow zone of serpentine rock which enters Canada from the south near Lake Memphrenagog, and extends in a north-easterly direction into the Gaspé Peninsula. During 1920, the output of asbestos from the Quebec mines was 174,521 tons. About 80 per cent. of the production goes to the United States.

* * *

There is a growing demand for tropical and semi-tropical fruit in the United Kingdom, the Board of Trade Returns showing that during the period January to July of the present year, no less than 6,267,551 bunches of bananas, 5,301,487 cwts. of oranges, and 611,059 cwts. of lemons, limes, and other citrus fruits were imported. During the corresponding period of 1921, the imports were: bananas, 5,148,852 bunches; oranges, 4,192,478 cwts., and other citrus fruits, 465,174 cwts.

Particularly in France, and sometimes in this country, plagues of cockchafer occur, especially in dry seasons, which, in their way, do considerable damage to vegetation. These weird insects can, however, be used as food for poultry and pigs, although the proportion of nitrogen is on the high side for the purpose. With fowls, however, the quality of the eggs is affected prejudicially, and with pigs their use as food has to be suspended some time before slaughtering, as otherwise the flesh has an unpleasant taste. In Germany they have been dried in the summer months for use in the winter.

* * *

The most important textile plant in China is ramie (*Baccharis nivea*). It is mostly grown in valleys, but in the warmer parts of the country is cultivated at altitudes up to 4,000 feet. Ramie gives what is probably the strongest and finest fibre known, which, although rather lacking in elasticity, is less affected by damp than any other fibre. It takes dyes readily, and in Japan is used in the making of imitation silk garments. Ramie fibre is largely consumed for ropes, lines, nets, canvas, etc., and is employed in the manufacture of gas mantles, for which it is particularly suited. Paper can also be prepared from it. The exports of grass cloth made from ramie from China in 1919 were valued at £994,000.

* * *

On the West Coast of Malabar, the class of raw sugar known as jaggery is manufactured for local consumption from the juice of the coco-nut palm, obtained from the inflorescence. The proportion of sucrose in the juice is about the same as in cane juice, but only traces of glucose are present, and the juice is clear and colourless. The *Agricultural Journal of India* (Vol. XVII., Part IV.) contains an article giving the results of experiments conducted with a view to improvement in the manufacturing process, which point to the advantage to be derived from the use of alum after liming in clarification. Whether the value of the sugar manufactured compensates for the loss of nuts—for, of course, the yield of these is less when sugar is made—is an open question, hinging on the value of labour.

* * *

It is extremely doubtful how far modern inks, with their basis of aniline dye, and thus particularly subject to chemical changes, will stand the test of time, but they certainly will not compare in this respect with the old Chinese ink prepared with finely divided carbon. The original method of preparation of this ink is described by Mr. C. A. Mitchell in his first Cantor lecture, published in the *Journal of the Society of Arts* of August 4th, the description being taken from a remarkably perfect Chinese manuscript of 2697 B.C. The oil or vegetable matter from which the carbon was made was burned with a limited supply of air, and the smoke collected in cold terra-cotta receivers, skill being required to stop the process at the right moment to prevent the lump black becoming yellow. It was then sifted, dried, mixed with a strained solution of glue, pounded for hours, and moulded into cakes, which were dried in the ash from rice-straw.

JAMAICA GOVERNORS.

BY FRANK CUNDALL, F.S.A.

XI.—Sir Francis Watson, President.

On the death of Albemarle in October, 1688, and in the absence of Modyford, the government devolved on Sir Francis Watson, the senior member, and the rest of the Council. Watson appears as Lieutenant-Governor in the Journals of the House of Assembly, but he was really only President of the Council and *primus inter pares*, and he got into serious trouble by trying to assume the powers of Governor. His commission as Deputy-Governor to the Duke of Albemarle apparently ceased with the Duke's death.

Of Watson's origin there is little record. He himself said in 1689, in writing to the King, that he had served for nearly forty years under Lord-General Monk and their late Majesties. It is possible that he may have been the Francis Watson mentioned in 1675 by Edward Cranfield in his Narrative of Proceedings for bringing the Surinamers to Jamaica, as a Surinamer who owed 21,783 lbs. of sugar to Matthew Hide, and again in June, 1676 as a proposed immigrant to Jamaica. Le Neve, in his "Collection of Knights," mentions: "Sir Francis Watson of . . . Knighted at Whitehall, 22 Feb. 1677."

Charles Wise, who writes very fully of the Watson family in his work entitled "Buckingham Castle and the Watsons" (London, 1891), does not refer to him. There is no mention of him in the County histories of Rutlandshire, Northamptonshire, Cheshire and Kent (Baker, Bridges, Morton, Blore, Omerod, Hasted, Wright, etc.). It is very possible that he may have descended from one of the younger branches of the Edward Watson of Lyddington, Co. Rutland, but there is no printed information confirming this.

From his will we learn that he was a friend of Thomas Betterton, the actor and dramatist, and in the life of the latter in the "Dictionary of National Biography" we read:—

"Betterton embarked (1692) a sum of £8,000, £6,000 of which were advanced by the famous Dr. Rudcliffe, in a venture to the East Indies undertaken by a friend, Sir Francis Watson, Bart. The speculation was successful, but the vessel on the return voyage, after arriving safely in Ireland, was seized by the French in the Channel. The entire savings of Betterton appear to have been sunk in this speculation. Sir Francis Watson is said to have died of his loss, leaving a daughter Elizabeth, aged about fifteen, whom Betterton adopted and who subsequently married Bowman the player. The outlines of this story are supplied by Gildon ("Life of Betterton") the filling up is due to a correspondent of the "Biographia Britannica," who elected to remain anonymous, and who was too discreet, as were all authorities of the day, to mention the name of Sir Francis."

The date given for the venture, 1692, is wrong; Watson died in 1691. This is all that can be gleaned of his life outside Jamaica.

In March, 1677, Sir Thomas Lynch by deed poll

conveyed to Francis Watson 2,000 acres of woodland and 1,000 acres of savanna on the Porus river.

In January, 1677-78 a commission was granted to Sir Francis Watson to be Major-General of the Forces in Jamaica, and in March he was named second of the Councillors whom Carlisle was to summon on his arrival. On the 22nd of December, 1678, he married at St. Catherine, Elizabeth, widow of Captain Anthony Collier, of Seven Plantations. He was sent home in the following year with letters for the King (who received him on the 9th of July) to "negotiate the ancient system of making laws," Carlisle intending to go himself if Watson failed in his mission. In October Watson put before the Lords of Trade and Plantations a list of the stores required by Jamaica (100 barrels of powder, 30 guns for the new fort, 50 recruits for the two companies, and a good fourth-rate frigate to defend the harbour), but the soldiers and frigate he also asked for were decided against. A little later he submitted in London the Objections made by the Assembly to the laws transmitted by the King.

With Sir Thomas Lynch and Lord Vaughan he was asked by the Lords of Trade and Plantations to put in writing what he knew of the Government of Jamaica since the Restoration. In January, 1680-81 the Lords of Trade recommended that Watson ("who is suddenly returning to Jamaica") should instruct Carlisle to follow his Instructions of the 28th May in dealing with Jamaica, which was in a very unsettled condition. Early in 1681 Watson was back in the colony, and had given Carlisle a letter from Coventry and a verbal message from the King granting him permission to return to England.

In November, 1680, he was a judge of the Supreme Court. He must have retired at some time, for in March, 1687-88, when Bourden resigned his judgeship and Albemarle appointed Elletson Chief Justice in succession to Bernard, Watson was put in Bourden's place.

In July, 1681, when the Lords of Trade and Plantations issued Lynch's commission as Governor, they recommended the revoking of the commission of Sir Henry Morgan and Sir Francis Watson as Lieut.-General and Major-General respectively, and in September the King revoked them. In the following year, however, a warrant was sent to Lynch authorising him to put Watson into the Council. In October, 1683, he and Ballard were in a minority in favour of keeping Sir Henry Morgan a member of the Council, when the Council decided to deprive him of all offices, and he was apparently considered as one of Morgan's adherents. In 1683 he patented 1,255 acres in Clarendon. On the 12th of February, 1683-84 he sailed for England with despatches from Lynch.

In November, 1688, George Reid, writing home to Father Churchill telling him of Albemarle's death, said, "It is generally wished here that Mr. Constable may become Governor and Sir Francis Watson Deputy Governor." George Reid was at that time appointed a member of the Council. He had been elected member for St. John in July, and may have been the father of George Reid, who in 1716 was Member of Assembly for St. Thomas-in-the-Vale. William Constable was Agent for the King in

respect to his tenths of the treasure from the wreck off Hispaniola.

On November 90th, 1688, the King wrote to Watson that, having heard of the Duke of Albemarle's death, he had ordered Lieut.-Governor Molesworth to repair to Jamaica and assume the Government.

"We intend to restore all things relating to the Government to the state in which they were on the Duke's arrival. We hear that the Assembly continues its Sessions since his death without legal authority, and we hereby declare all their acts and proceedings since his death to be null and void; nor shall any new Assembly be summoned until Lieutenant-Governor Molesworth or a new Governor arrive. You will pursue the methods of administration that were followed by Sir Thomas Lynch, and no fines or forfeitures shall be levied until Lieutenant-Governor Molesworth's arrival."

The Attorney-General (Symon Musgrave), in a long account of abuses existing under Albemarle, dated March 12th, 1688-89, to the Lords of Trade and Plantations, says: "Sir Francis Watson, though expressly named President in the King's letter, persists in acting as Governor, and has called a Council of War and put the island under martial government, under the shelter of which the Chief Justice and Colonel Needham, both much indebted here and at home, hope to escape from the island"; but the King's letter, filed in the Record Office, was addressed: "To our trusty and well-beloved Sir Francis Watson, Knt., our President and the rest of our Council of Jamaica."

On March 15th, 1688-89, Watson wrote to the Lords of Trade and Plantations, "I have prorogued the Assembly to 22 April next." On the 6th of June he wrote to them:

"Though I have frequently addressed your Lordships since the Duke of Albemarle's death, I have received no answer, so that I greatly suspect my letters have been detained, and the feelings of the people misrepresented by men of a contrary bias to the good of the Island. (I send copy of an address sent home by His late Grace through Major Knight, which sets forth the true and genuine state of the inhabitants' grievances.) And I am confirmed in my opinion by the directions of his late and present Majesty in undoing all the work done since the death of the Duke of Albemarle, which was in accordance with his Grace's methods; whereby the memory of so great and good a man is eclipsed. He was generally lamented here, especially by the planters, and he procured a perpetual Revenue Bill such as no Governor before him had been able to procure. I have recalled my proclamation of martial law in obedience to the King's orders. I must observe that the Session of the Assembly after the Duke's death was not illegal as is alleged, it was called by writ in the late King's name and sat according to precedent. There were but three Roman Catholics in the Militia, who at once quitted their commands. I have also laid aside the title of Governor in obedience to the King's orders, though I assumed it in accordance with every precedent to Colonel Doyley's time and by advice of the Crown's law-officers. The Council is so diminished by sickness that I was forced to take two suspended Councillors, Colonels Walker and Ivy, back into it. On Colonel Molesworth's arrival I shall readily submit the government to him, though I think that my forty years of service might plead somewhat for me."

SAN GLORIA.

Christopher Columbus visited San Gloria Bay (now St. Ann's Bay), Jamaica, in 1494. In 1503 he was shipwrecked on its reef.

*O Captain of wide western seas,
Where Death embays thy vessel's bow,
Dost thou remember things like these?*

Bright sands, strange commonwealths of trees
That watched from far thy plunging prow,
Dost thou remember things like these?

San Gloria's circling mountain frieze
Her blue bay mirrors; seest thou?
Dost thou remember things like these?

The fire-fly through the forest flees
And frets with gold the night-black bough,
O Captain of wide western seas!

Still thundering, the insurgent seas
Roar round the rough reef's ragged brow—
Dost thou remember things like these?

*O Captain of wide western seas,
Dost thou remember things like these?
Hear our dark island woodlands sigh,
O Captain of wide western seas,
Where thy strong soul inhabits now!*

T. H. MACDERMOT.

OBITUARY.

MR. GEORGE S. POMEROY.

We regret to state that news has been received in Barbados that Mr. George S. Pomeroy, proprietor of the Hotel Pomeroy (formerly the Marine Hotel), has been killed in America in a motor-car accident.

Mr. Pomeroy, whose home was in Portland, Maine, first came to Barbados in 1887 as manager of the Marine Hotel, of which he subsequently became proprietor, spending every winter season in the Island. "During this time," writes Mr. W. R. Dunlop, "Mr. Pomeroy's name became a household word in the West Indies, his cheerful, entertaining personality making him a most popular proprietor. A self-made man, who rose from being an office-boy to something approaching a millionaire, those who knew him, well appreciated the kindness of his heart, and relished his ready wit and the never failing geniality of his disposition."

It is understood that the Interdepartmental Committee which is sitting to consider the question of Colonial Income Tax in relation to that of the United Kingdom contemplates one or two more sittings in the autumn; but that it proposes to issue the promised model Colonial Income Tax Ordinance in time for the next year's financial legislation in the West Indies.

A few subscriptions to The West India Committee for the current year are still outstanding. These may be paid to any branch of the Colonial Bank, the Royal Bank of Canada, the Bank of Nova Scotia or the Canadian Bank of Commerce or sent direct to the Secretary, 15, Seething Lane.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Antigua's Onion Crop.

The past season's business of the Antigua Onion Growers' Association closed on May 31st last, a total of 2,476 crates having been exported during the season.

Viscidities of a Barbados Estate.

At the beginning of August, rain was still reported to be much needed, especially in Christ Church and St. Michael. In St. Andrew's and St. Joseph reaping operations were then still dragging on.—The *Advocate* of Aug. 1st states that the Government have called upon Mr. Lingwood, the Colonial Engineer and Manager of the Water Works to resign on the ground of age, and has put down a bill to vote him a pension of £600 a year, the amount of his salary.—Canon H. A. Dalton, D.D., who is retiring from the head-mastership of Harrison College after a sixteen years connection with that Institution, will be succeeded by Mr. A. Somers-Cocks, M.A. Mr. Russ, an assistant master, has also resigned.—Mr. Rickman, the Income Tax expert, left the Island for Jamaica on June 25th. A bill to amend the Income Tax Act in the light of Mr. Rickman's recommendations, was read a second time in the House of Assembly on July 18th, after which the House adjourned for a fortnight.—Rugby Plantation, St. Thomas, with an area of 41 acres, has been sold by Mr. T. H. Lashley to Mr. F. G. Inwiss for £5,000. Mr. Lashley bought the estate in January, 1919, for £15,800, and resold it a year later for £19,500, buying it back in January of this year for £6,500.

The Barbados Customs Tariff Amendment Act, which came into force on May 7th, in dealing with spirits provides for a flat rate per liquid gallon when the spirits are of proof or under, with the same rate per proof gallon when they are overproof. The preferential rates are: For brandy, whisky, cordials and liqueurs (including bitters), 15s. per gallon; gin and rum, 10s. per gallon; Bay rum, 5s. per gallon; and unmenumented spirits, potable or non-potable, 10s. per gallon. The surtax on foreign spirits is in each case 2s. 6d. per liquid and proof gallon respectively.

Drainage and Irrigation in British Guiana.

The decision of the Government to withdraw all temporary increases and bonus to members of the Civil Service as from January 1st next has caused considerable dissatisfaction among the Colony's public officials, who have prepared a petition to the Secretary of State, protesting against the reduction. Elected members have agreed to defer coming to any decision on the question of salaries until they are in a position at the end of the year to ascertain the true financial position of the Colony.—In a letter to the *Chronicle* of July 21st, Viscount Dunsford writes to correct the impression that his firm, Messrs. Bernard Scholle & Co., made a very large profit out of the recent Million Pound Loan. He points out that although the purchase price was 96 per cent., and the loan was issued to the public in London at 99½ per cent., less than one per cent. remained to the company after paying underwriting commission, etc.—The Directors of the Schoon Ord Estates, Ltd., have decided that in the future the canes grown on Pln. Schoon Ord will be ground at Pln. Versailles.—The Governor has informed a Deputation

of Elected Members of the Court of Policy that he intends to appoint a Committee to consider what steps should be taken towards providing irrigation and drainage.—The British Guiana Labour Union, which was established in 1919, has been duly registered under the Trades Union Ordinance of last year.—Mr. L. D. Cleare, of the firm of S. Davson & Co., has been offered the post of Government Entomologist in succession to Mr. G. E. Bodkin.—Expeditions are being made up the Corentyne and Berbice Rivers in the hope of locating gold and diamonds. It is believed that the Corentyne expedition has already been partially successful in tracing diamonds.—Captain A. A. de Gouzaque, one of the senior captains in the Sproston Line, was drowned in the Essequibo River on July 20th, whilst making a sounding from the launch *Ira*.

At the annual general meeting of the Sugar Planters' Association, held on July 17th, Mr. E. Walcott stated that from private sources he learnt that if a deputation was sent from British Guiana to Canada with full powers to negotiate Free Trade they would undoubtedly receive a very sympathetic hearing and consideration from the Canadian Government, and he proposed that the Hon. R. E. Brassington should move the question in the Court of Policy and ultimately arrange to proceed to Canada as the Colony's Delegate with Mr. A. P. Sherlock, who might be induced to cross over from England and join Mr. Brassington in laying these proposals before the Canadian Authorities. This was unanimously agreed to, and the chairman promised to give the matter his early attention.

Reclamation Work in British Honduras.

The Hon. A. R. Usher, writing on August 8th, states that the Jefferson Construction Company, who are now engaged in dredging the bar of the Belize River, and on reclamation work at Fort George, have submitted a rough estimate of the cost of bringing water from the Sibun River by pipes to Belize, amounting to about \$268,000. This is under consideration.—His Excellency Sir Eyre Hutson was due to go on leave on the 24th of this month. Lieut.-Colonel Smith will administer the Government in his absence.

Sulphuric Acid for Dominica.

Sulphuric acid, which the Collector of Customs is satisfied is imported for the manufacture of citric acid, has been added to the list of articles which may be imported free of duty.

A Grenada Agricultural Exhibition.

Mr. E. P. Smith, writing on August 3rd, states that an agricultural and industrial exhibition under the auspices of the Agricultural and Commercial Society and the Chamber of Commerce, is being arranged for the month of December next.—A guarantee fund to cover expenses of the colony's participation in the British Empire Exhibition scheduled to take place in 1924 has been inaugurated by the Agricultural and Commercial Society, and a great deal of interest is being aroused.—The two-day race meeting in St. George's, fixed for August 7th and 8th, promised to be a great success. The St. Vincent and St. Lucia ponies arrived on July 30th on the schooner *Columbia*, and appear to be in fine form. The proceeds of the meeting will go towards the fund for erecting a new grandstand.—The distribution of manures to agriculturists by the Government has now been completed, the Department of Agriculture having apparently had a busy time. Altogether about 620

tons, costing approximately £7,389, were distributed under a credit scheme.—The maritime inhabitants of Carriacou are determined to keep on building sailing vessels, two or three large schooners having recently been turned out, one of which is now being ad-measured by the Shipping Controller in St. George's.—Mr. J. Bain Wells, who recently sustained two fractures in a fall over a 40-foot drop when riding a motor-cycle, has been able to return to his home from the Colonial Hospital, where he had been under treatment since the accident occurred.

Jamaica and the Panama Disease.

The Governor and Lady Probyn travelled to Hanover on July 28th to open two new bridges, one over the Gordon River, and the other over the Green Island River.—In the *Gleaner* of August 3rd, Major Malcolm pays a tribute to the energetic manner in which the Agricultural Department are tackling the serious epidemic, which has been diagnosed as neurotic-stomachitis, that is infecting the island's cattle.—The first meeting of the Jamaica People's Association, the objects of which are to take an interest in all matters affecting the welfare of the British Throne and Empire, and to co-operate loyally with the administration in all that makes for the advancement of Jamaica and its inhabitants, was held on a recent date. Mr. F. A. Judah has been elected a member of the Kingston City Council in succession to Dr. R. A. Logan, defeating Mr. T. A. Gayle by twelve votes.—The United Fruit Company have sent to the Jamaica Agricultural Society a report on a special shipment of China bananas sent to Philadelphia this summer. The opinion of the trade appears to be that the appearance of the fruit is very much against it, and that it would only sell to advantage during a severe shortage of bananas, and then probably at not over 60 to 70 per cent. of the value of the regular variety. A perfectly ripe finger was described as tasting like breadfruit, of a tough, lumpy texture, and before being thoroughly masticated lost its flavour and tasted more like raw corn starch than bananas.—The question of the Panama Disease was raised at the half-yearly meeting of the Agricultural Society on July 27th on serious reports from the branch Societies. Mr. Sutherland, the Inspector of Plant Diseases, pointed out that merely taking out the affected root had no effect in preventing the spread of the disease, but that all the trees a chain away must be removed.

St. Kitts' Sugar Crop.

Mr. E. J. Shelford, writing on August 4th, states that the St. Kitts (Basseterre) Sugar Factory, Ltd., finished crop on the 22nd ult. with a total of 8,426 tons crystals, made from 74,277 tons canes delivered, giving an average of 8.81 tons of canes to the ton of sugar. The estates in the Christ Church and St. Mary's Cayon Parishes reaped good crops, the returns varying from 25 to 21 tons of canes per acre, Stapleton Estate, in St. Peter's Parish, being the only estate outside of this area with a return of over 20 tons per acre. The Basseterre Valley Estate's crops were again very light this season, for which the drought is not entirely responsible.—Owing to persistent motor engine troubles, the water transport service of canes inaugurated this year has been a failure. It would seem that a good, serviceable steam tug would solve the difficulty.—The Company have started work in earnest on the railway extension, labourers from Anguilla having been introduced to assist with the undertaking.—The Capisterre Factory Co., Ltd., has unfortunately come to grief, and is now in the hands of the Receiver. It is doubtful if a great deal of the material will ever be disposed

of. The failure of this scheme has hit the North Side Estate Owners very hardly, and the only hope for them now is the extension of the Basseterre Factory system. Cotton picking has commenced on some Estates; owing to persistent dry weather, it is expected that returns will be lighter than usual this season. The cotton worm has been unusually troublesome—but the pink bollworm does not appear to affect the yield of the early cotton seriously.

A St. Lucia Banana Industry.

The Agricultural and Commercial Society, at their meeting on July 20th, Hon. G. M. Peter presiding, decided to recommend the nomination of His Honour E. D. Laborde, I.S.U., Mr. Frank Barnard and Mr. Algernon Aspinall, C.M.G., to represent St. Lucia in connection with the British Empire Exhibition, 1924. A letter was read from Mr. G. C. Cook, Special Representative of the Canadian Government Merchant Marine, stating that he was "making a fight" for a weekly service by the line next year with faster and larger ships, whose 'tween decks would be fitted for carrying fruit (as in the case of the Clyde Raportel ships) to leave Dominica and St. Lucia fortnightly. He required a guarantee from local planters that they could supply from April next onwards, at least 20,000 bunches of bananas per fortnight. Mr. Niles, the Acting Agricultural Superintendent, informed the meeting (says the *Voice*) that he considered it would be possible for St. Lucia to obtain the benefit of three or four years good trade before any banana disease was likely to make itself felt. It was decided to request the Administrator to obtain from the Department of Agriculture a report on the possibility of obtaining a sufficient quantity of fruit.—Mr. Hathaway has arrived on the Island to take charge of the Wireless Station.

WANTS.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

A *Covered Officer* is required for the Uganda Government Service, to be responsible under the Director of Agriculture for promoting the extension and improvement of coffee production in the Protectorate. Sound knowledge of the cultivation and treatment of the coffee plant and of the preparation of coffee for the market essential. Costa Rican, Jamaican, or Indian experience preferred. Salary £500 per annum, with free quarters, or an allowance in lieu thereof, and free first-class passages. Temporary engagement for one tour of from 20 to 30 months' residence in the first instance. Leave according to East African Regulations. Non-pensionable. Applicants should apply to the Assistant Private Secretary (Appointments), Colonial Office, Downing Street, S.W.1.

CASSAVA FLOUR ON STARCH.—Advertiser would greatly appreciate any practical information on the manner and cost of preparation of this in the West Indies from any fellow member of The West India Committee.—Answers to "Major," c/o H. W. Hall, 42, Old Broad Street, E.C.

Lady travelling to Demerara in September would like another lady to assist her on board to destination or near port. Has been very ill. Half passage in exchange.—Reply to "T. G.," c/o THE WEST INDIA COMMITTEE CIRCULAR, 15, Seething Lane, London, E.C.3.

MARRIAGE.

FARQUHARSON-WRIGHTSON.—On the 16th August, at St. Stephen's Church, Gloucester Road, London, by the Rev. I. Lloyd-Jones, Frederick Farquharson, second son of Mr. and Mrs. W. H. Farquharson, of Retreat Estate, Jamaica, B.W.I., to Dorothy, younger daughter of Mr. and Mrs. W. H. Wrightson, of Clacton-on-Sea.

OUR WEST INDIAN LIBRARY.

THE BIRDS OF BRITISH GUIANA. Based on the collection of Frederick Vavasour McConnell, Camfield Place, Hatfield, Herts. By CHARLES CHUBB, F.Z.S., M.B.O.U., Zoological Department, British Museum. Bernard Quaritch. Vol. II.

In the British Museum (Natural History) at South Kensington is to be seen a collection of the birds of British Guiana made by the late Mr. Frederick Vavasour McConnell, and presented to the museum by his widow. The collection, which is a very large one, took Mr. McConnell twenty-five years to assemble. He made several expeditions into the interior of British Guiana and secured specimens of many rare and beautiful birds, which formed the nucleus of a unique collection at his residence at Camfield Place, Hatfield. An account of this collection has been rendered possible through the labours of Mr. Charles Chubb, of the Natural History Department of the British Museum, who has for many years made a special study of South American ornithology. It is pathetic to think that Mr. McConnell did not live to see the record of his life's work. He died in January, 1914, and it was not until some two years later that the first of two large quarto volumes dealing with the collection appeared. We noticed the first of these volumes in our issue of June 15th, 1916; and the second is now before us. The edition is limited to 250 copies. When it is said that each volume contains some 700 pages, some idea will be conceived of the labour that has been accomplished by Mr. Chubb. It is truly a monumental work. The mere index occupies 22 pages. There are ten coloured plates and 214 drawings by Mr. H. Grönvold. A systematic index is given in addition to the alphabetical, and the book is thus made very easy of reference.

While, naturally, the work is mainly of interest to the student, who will find details given of each bird—description of male and female, size, breeding season, nest, eggs, particular haunts, habits, etc.—the book is of the deepest interest to the ordinary reader, for an account is given of the second journey to the famous Roraima made by Mr. McConnell in August, 1898, for the biological exploration of the mountain, and more especially of the summit. The account of the journey is written by Mr. J. J. Quelch, who, by the permission of the Directors of the Royal Agricultural and Commercial Society of British Guiana, accompanied Mr. McConnell on the expedition as his guest. It will be readily understood that to the layman this is the portion of the book that appeals most. We say this without for a moment detracting from the admiration due to Mr. Chubb's great work, which to the scientist will henceforth be the book on the subject.

The traveller to-day finds the problem of reaching Roraima a very different one to what it was in 1898. By the Potaro route there is a steamer available to a point on the Upper Demerara river, from which a short railway runs to a station on Essequibo River, above the first set of falls—a journey of one day. Here there is a comfortable hotel with every accommodation. From this station a launch runs, in another day's journey, to the Potaro River, below the great cataract of Tumatunari. Here there is another convenient rest-house. Above this there are facilities available by boat and road for an easy journey of three or four days to a point below the Great Kaieteur Falls. The portage of baggage to the top of the plateau being accomplished, the coast people can be sent back if arrangements are made for Indians from above. From this point onwards the journey is a fairly direct one of a few days. It will be remembered that the Hon. Cecil Clementi,

the Government Secretary of British Guiana, and Mrs. Clementi have recently travelled over the route.

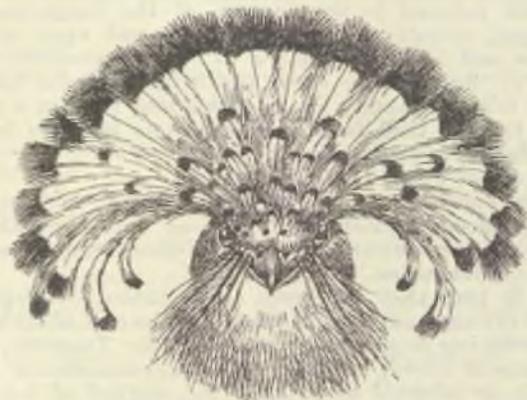
THE JOURNEY TO RORAIMA.

When Mr. McConnell made the journey in 1898 there were no such facilities, and the journey had to be made by boat and on foot. All kinds of difficulties had to be surmounted, and the journey was one not only of excessive labour and continual delays through the rivers being flooded, but of frequent danger, especially in the rapids and falls. In planning his second journey to Roraima, Mr. McConnell decided to follow the route by the Mazaruni River rather than by the Potaro, for two main reasons. In the first place, the land journey promised to be decidedly shorter, according to the map and published accounts; and this was of importance in transporting food and baggage and conserving the strength of the men for the stiff Roraima work. One of the difficulties met with on the first journey was the fact that one tribe of natives, the Makushis, were frightened of the men of another tribe, the Artekunas. Tribal feeling and prejudice are strong. It was therefore a great help when Ritchie, a settler in the great savannahs, well known to the people all over the district, agreed to bring down Makushis enough for two boats and himself to act as captain of one, and to be in general charge of all the arrangements further. The other captain was a black, Jacob, who not only proved an ideal man for his post, but knew all the best camping grounds in the best fishing and hunting districts. It is impossible in a limited space to follow the route throughout, but as an example of the dangers met with on the way, we may quote the following incident from Mr. Quelch's narrative:—

"We were running the Rakki Falls, down a long cataract of very rough and heavy water, curving around from left to right, when the large paddle of the bowman of the second boat caught on a rock below the water; and from the half-standing, stooping posture in which a bowman places himself when running the falls, with his legs braced against the sides, he was pitched up and forward completely out of the boat. By the merest accident, as he fell, he was able to grip the gunwale with both hands by the fingers, but unfortunately in the very dangerous position between the boat and the rocks of the curve along which we were rushing at a tremendous pace. So narrow was the interspace at times from projecting rocks in front, that it seemed impossible that he could escape being crushed. His grip must have been like that of a vice, for he was constantly splashed and buffeted by the rough water; and any attempt to haul himself up into the boat must have been disastrous. The man's life lay, of course, in Ritchie's steering, and it was splendid. He had constantly, down the long run, to keep the boat sufficiently out from the rocks at the side of the curve and from those projecting into the channel, both for the safety of the man and of the boat itself, both of these operations usually being very largely part of the bowman's work by heading off the boat with his long paddle. Ritchie's success again depended on the pace the paddlers could give over the rushing water, and this every man in the boat—all Indians—knew, and they struck with every ounce of their strength to give Ritchie the extra headway on the boat that success required.

"We in the first boat had not seen the accident. Running through the cataracts is always exciting, and this one, from its great curve and numerous rocks, was dangerous. We were spellbound by it. Jacob's attention, even amid the sound of our quick paddles, had been caught, however, by the extra

heavy and rapid rattle behind. He had glanced round for an instant, and then his sharp and loud call, 'Headway!' rang over the boat in so unusual a tone that we glanced back at him, and then we saw. It was horribly fascinating! A human life in our charge, so to speak, in great jeopardy: the boat leaping forward at a tremendous pace towards us, and Ritchie, standing to his great paddle, braced like a figure of energy. Our men probably had glanced back, too, at the call, so unusual in the midst of a cataract, for our paddles rang out even quicker to give extra before the on-



Onychorhynchus Coronatus.

One of the many illustrations from the second volume of "The Birds of British Guiana." This bird was found by the late Mr. F. V. McConnell, on the Continga River, in 1898.

coming boat, though the captain's call was as much to the men behind as to ours.

"It was like a hard grip off one's heart when we reached smooth water below and the Indian was drawn into the boat by two of the others, safe. He was quiet and trembling, but he at once turned to get another large paddle such as he had lost, spares being always carried. We all seemed more excited than he by the incident. And then we were all looking at Ritchie and his men, and some of us cheered, for they had not only saved the man, but themselves also from a terrible death, though we had not at first realised what the full catastrophe might easily have been; and we had been spared witnessing such an event while utterly unable to render any help."

MUMBO-JUMBO WORSHIP.

The whole story of the journey is full of interest. We are taken by the writer past primeval forests filled with magnificent timber, hard woods, furniture woods and those adapted for all sorts of purposes, awaiting their application to general industry when the colony has developed. Animal life was varied. Monkeys and bats were the commonest mammals met with. Birds were plentiful. The roar of the jaguar was often heard. Of insects there were a varied assortment, many of them most unpleasant. Mr. Quelch has much that is interesting to tell of the native tribes met with on the way, and some fine photographs of them are included in the book. He relates the following story of the natives met with at Roraima, who have a perfect passion for church-going. Any person of authority is accepted as parson, and at Roraima the Chief, Jeremiah, had services every day.

"Many years ago a young deacon of the Church of England had spent quite a long time at one of the large villages on the Upper Ireng river, not

very far from Roraima, under urgent request from the Chief, who exercised great authority in the district, and people had flocked thither from all directions, Jeremiah (the Chief) and his villagers among them; and in the building which he had put up afterwards on his return to Roraima, he had regularly carried on church. The imitation of the manner and ceremonial of the parson was so perfect that it was always like pure comedy to witness it, though it was painful in a way, since one saw that, underlying it all, there was a real deep feeling with the desire to learn and to worship something that could be but a species of Mumbo-Jumbo in reality to them. Neither Jeremiah nor any other could read, though they knew by heart many parts of the service of the Church of England, printed in the Akkawaio language, which the other Carib tribes understand. Many of them could only pick out some of the capital letters in the book of the service which the chief had, but they could repeat many of the chants, the Collects, and parts of the prayers and Psalms, and knew exactly where they were in different parts of the book, pointing to the places, though they repeated merely from memory and were quite at sea if dodged. Some of the older women spent the day in the church teaching the younger to learn these parts as 'school,' and they would point with a stick, word by word, as they had seen the teachers do in the mission school-houses—at times, however, at what had nothing whatever to do with the words they were repeating."

If Mr. Quelch's itinerary could be published together with the story of Mr. McConnell's first trip to Roraima, apart from the description of the collection of birds, a most interesting book might be produced at a price within the reach of the ordinary reader, to whom the two handsome volumes are out of reach, first, because only 250 copies are issued, and secondly, because they could not possibly be produced except at a very high figure.

WEST INDIAN COMPANIES.

West India and Panama Telegraph Co.

In their annual report for 1921, Directors record a loss on the year's working of £1,519. Had it not been for the fact that £21,991 17s. 9d. was earned in 1921 by the hiring of the Company's Cable Ship and by the sale of several years' accumulations of old materials, the total Debit Balance would, on the 31st of December last, have reached nearly £190,000. The hope of improved business in 1921 was not realised, whilst in Porto Rico the Company have now to meet the competition not only of a French Company, but also of an American Company. During the year, the Directors considered it imperative to place the serious position of the Company before the Treasury and the Colonial Office. At present no relief has been offered to the Company; there has, indeed, been a definite refusal of direct financial help, but the Directors have submitted another proposal which is now under the consideration of the Government.

AMONGST the visitors to The West India Committee Rooms during the past fortnight have been the following:—Mr. H. H. Baird, Hon. P. N. Browne, K.C., Mr. A. Cory Davies, Mr. J. K. French, Dr. Thomas Gann, Mr. F. F. C. Gill, Mr. F. W. Hopkinson, Mr. H. Israel Jeffers, Hon. W. G. Kay, Mr. A. F. Levitt, Mr. Samuel Manning, Mr. P. Noble, A.M.I.C.E., Dr. E. M. Skeete, Lieut. C. S. B. Swinley, R.N., Hon. S. Wolffsohn.

CINCHONA BARK.

The name "Cinchona," which survives in the Blue Mountains in Jamaica, recalls the experiments conducted in that island with the production of cinchona for the manufacture of quinine. The cinchona tree was first introduced into Jamaica in 1861, when four hundred healthy plants were raised by Nathaniel Wilson, the curator at the Botanic Garden at Bath, in St. Thomas-in-the-East, from seeds supplied through the liberality of the British Government, and on the recommendation of Sir Joseph Hooker, the Director of the Royal Botanic Gardens at Kew.

Writes Mr. Frank Cundall in "Historic Jamaica":—

"By the month of October, 1861, Wilson reported that he had over four hundred healthy plants quite ready for planting out. As the climate of Bath was unsuitable for the successful growth of cinchona, by the kindness of Dr. Hamilton, they were tried at Cold Spring coffee plantation at St. Andrew, at an elevation of 4,000 feet. Here Wilson found the climate and soil to be all he could desire, and as it afforded every facility for carrying out so valuable an experiment he at once availed himself of it, and planted out in the coffee fields, November, 1861, several plants of each species.

"The garden at Castleton was then finally established, and ultimately the Government cinchona plantations were opened in 1868, and placed under the management of Robert Thompson, who on Wilson's retirement had been appointed superintendent of the Botanic Gardens. The cinchona trees flourished, but the industry was killed by the cheaper production of bark from India."

In this connection it is of interest to note that a new volume in the series of Reports of the Indian Trade Enquiry conducted at the Imperial Institute, just published by Mr. John Murray, deals with cinchona bark, the source of quinine.

At the present time Java has a virtual monopoly in the production of cinchona bark, its closest competitor being India, which produces only about 8 per cent. of the world's supply. Moreover, the manufacture of quinine is largely under the control of Dutch interests, and of the 8,000,000 ozs. used annually in the British Empire, about 5,000,000 ozs. have to be obtained from foreign sources. In view of the importance of the matter it is recommended that attempts should be made to produce in India sufficient bark to meet a much larger proportion of the Empire's requirements. Cinchona has been introduced into several tropical parts of the Empire, and the volume contains the results of examination at the Imperial Institute of cinchona bark grown in St. Helena, Tanganyika, and the Cameroons.

* *Historic Jamaica*. By Frank Cundall, F.S.A., with 52 illustrations. Published for the Institute of Jamaica by THE WEST INDIA COMMITTEE. Price 5/- Post free 5/6.

The £1 shares in Home-Grown Beet, Ltd., carrying a Government guarantee of 5 per cent. interest, were quoted on August 21st at 5/-.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

The State of St. Kitts.

SIR,—On reading the account of the dinner given to the Administrator of St. Kitts in your issue of 20th July, I notice with pleasure that Mr. Aspinall in his speech referred to the success of the Baby Saving League, recently established there, and upon which Major and Mrs. Burdon are to be congratulated sincerely. But, having spent last winter in the Island with full opportunity for investigation, I am in a position to state that its general health is far from being satisfactory.

Veneral disease is still rampant.

Typhoid seems to be on the increase and might easily become epidemic. This need not be wondered at when the sanitary condition of Basseterre is taken into consideration.

It is true that a scheme of sanitation on modern lines presents some difficulties, and the cost of such an undertaking might be greater than the Treasury can at present afford, but immediate measures should certainly be adopted to improve the method of dealing with the existing situation which is, to say the least, deplorable. An additional danger is the inadequate supply of water. Year after year in the dry season there is the same outcry, "no water," and yet nothing is done to relieve the situation. Reservoirs in various localities are found to be full of trees and scrub instead of water, pipes are left unrepared and wastage occurs as a natural consequence.

This, Sir, is a matter which brooks of no delay as it is one of vital importance to the entire community.

There are two other points upon which I should like to touch, not perhaps directly applicable to the subject of health, but which undoubtedly affect the temper and well-being of the inhabitants.

1. The system of lighting the town of Basseterre, which may be described as mediæval and which should be abolished ruthlessly and promptly in favour of electricity.

2. The state of the roads throughout St. Kitts generally.

These roads while in the hands of the planters were at one time the pride of the Leeward Islands, but since they were taken over by the Government they have been allowed to deteriorate until they have reached their present disgraceful state.

Repairs which are merely palliative and reluctantly applied under extreme pressure only mean money wasted.

To summarise.—There are four settle questions which demand attention on the part of the Government:—Sanitation; water; lighting; roads.

Born in St. Kitts and knowing it intimately, I have confined myself to a statement of facts which can be verified by any intelligent person who desires to be enlightened as to the true state of affairs, and I maintain that before anything else is thought of, remedial action should be taken and every available penny devoted to this object, from whatever source it may be derived.

I am, Sir, your obedient servant,

H. M. BERKELEY.

August 12th, 1922.

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Cumtoto*, August 15th:—

Miss A. Campbell	Mr. G. A. Hart	The Rt. Hon. Sir John Simon, K.C.V.O., K.C.
Rev. R. E. Clark	Mr. & Mrs. N. W. Manley	Lady Simon
Mrs. L. R. Gibson and fam.	Mr. R. T. Michelin	Miss J. A. Simon
Mrs. E. H. P. Greaves	Mr. C. C. P. Michelin	

Home arrivals from Jamaica, in s.s. *Miami*, Liverpool, August 20th:—

Mr. E. Cooper	Hon. & Mrs. R. Johnston	Miss H. A. Mathread
Miss F. W. Gordon	Miss Johnston	Mr. E. Price
Mr. & Mrs. A. Helmy & family		Mr. T. J. Stockley

Home arrivals from Jamaica, in s.s. *Bayano*, Avonmouth August 20th:—

Captain H. W. Arnold	Mr. & Mrs. S. H. Hammond & fam.	Mr. & Mrs. L. Roper & family
Mr. Hector Brooke	Mr. P. Kenward	Mrs. A. C. Ryan & fam.
Mr. Harold Brooks	Mr. & Mrs. J. G. Kieller & family	Mr. & Mrs. M. Scott & family
Colonel A. Butler		
Mrs. K. Butler	Lt. Col. C. F. S. MacLaverly	Mr. H. P. Sewell
Mr. Harold Buckley	Genl. G. McAlister	Mr. & Mrs. J. R. Smith
Miss V. Bradshaw	Mr. C. E. Mellish	Mr. A. E. Standon
Miss B. Bramwell	Mr. & Mrs. W. Murphy & family	Mr. & Mrs. C. Stevenson
Mr. W. Bourke & Son	Dr. V. St. Leger	Mr. & Mrs. H. Stevenson
Mr. J. Clark		
Miss M. del Castillo	Miss J. Purser	Mr. & Mrs. R. Tweedie & fam.
Lieut. H. de Quincey	Mr. J. S. Ricard	Mr. & Mrs. W. J. Wilson & fam.
Mrs. E. Dunn	Miss G. Robertson	
Mrs. E. George & fam.		
Captain and Mrs. Green & family		

Sailings to Jamaica, from Avonmouth, in s.s. *Motagua*, August 22nd:—

Mrs. W. Hamilton-Jones & family	Mr. & Mrs. W. A. Hewitt	Mr. P. H. Morlan
	Mr. E. V. Lockett	Mr. J. A. Nichol
		Mr. R. P. Simmons

Thos. & Jas. Harrison.

Home arrivals from West Indies, in s.s. *Ingram*, London, August 3rd:—

Miss J. Andrade	Mr. K. Earle	Mr. A. Messer
Mr. & Mrs. Alder	Mr. M. Fink	Mrs. E. Moll
Ms. Baird	Mr. E. Farninger	Mrs. J. Nowell
Mr. G. Bates	Mr. Ginder	Miss H. Owen
Mr. J. Berry	Mrs. Grant	Rev. J. Papworth
Mr. James Black	Mrs. Gray de Gray	Mr. J. Farnell
Mr. & Mrs. Bowers	Mr. J. Harker	Mr. W. Pearce
Mr. & Mrs. Bradwaite	Mr. P. Hines	Mr. & Mrs. Peany
Miss C. Brookner	Mr. L. Holder	Mr. & Mrs. Peterkin
Mr. E. Brown	Mr. Hopkinson	Mr. V. Pillai
Mr. V. Branson	Mr. & Mrs. G. F. Huggins	Mr. T. J. Redhead
Mr. H. Brown		M.C.
Mr. W. Cate	Mr. Huggins	Mrs. & M. Rodriguez
Mr. H. Chapman	Mr. H. J. Jeffers	Mr. E. Shapiro
Mr. & Mrs. Chaderton	Mr. J. Johnson	Mr. Siddons
Misses Clarke (2)	Mr. & Mrs. Jones	Mr. & Mrs. Smith
Mr. & Mrs. Coren	Hon. & Mrs. W. G. Kay	Mrs. E. Stibbney
Miss K. Corlett	Mrs. E. Lees	Mr. C. Standridge
Mr. & Mrs. Ivor C. Daniels	Mr. E. Low	Miss A. Valera
Mr. & Mrs. Danutti	Mr. & Mrs. M. P. Maillard	Mr. Watson
Mr. Darrell	Mr. & Mrs. J. Martin	Mr. A. Warren
Capt. & Mrs. Dewar	Mr. & Mrs. S. Martin	Mr. W. Wharton
Mrs. Dow	Mr. F. May	Mr. E. Wrightson

Frederick Leyland & Co., Ltd.

Sailings to West Indies from Liverpool, in s.s. *Asian*, August 28th:—

Mrs. Fitzgerald	Miss F. S. Hammersley	Mr. & Mrs. A. Watson
Mr. J. H. French	Mr. McInnes	Mr. W. T. Waller

Royal Netherlands West Indian Mail.

Sailings to West Indies from Dover, in s.s. *Orange Nassau*, August 26th:—

Miss Anse	Mr. & Mrs. G. Kemsley	Mr. J. S. Rae
Mr. & Mrs. B. Barron & family	Miss King	Mr. L. S. Reeves
Mr. W. Bayley	Mr. D. W. Lashley	Mr. & Mrs. H. T. Spencer
Mr. E. D. Caldecott	Mr. & Mrs. J. J. Lewis	
Mr. & Mrs. R. H. Carr & family	Messrs. M. P. & G. Maillard	Miss A. Spenser
Mr. A. G. Cox	Mrs. & Miss Mann	Miss A. van Stenis
Mrs. Fisher	Mr. J. H. McLaughlin	Mr. J. W. Stephens
Mr. A. T. Greathed	Mr. F. Oxley	Miss H. M. Stodart
Rev. F. Hodgkins	Mr. & Mrs. D. Paterson	Mr. & Mrs. A. T. Webber
Mr. St. C. Houie	Miss O. J. Paterson	Mr. C. Wheatine
		Mr. C. T. Williams

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to June 30th, have been kindly supplied to The West India Committee by the respective Governments.

	Anti-gua. To June 30	Bahamas. To June 30	British Guiana To June 30	British Honduras. To June 30	Dominica To June 30	Grenada To June 30	Jamaica. To June 30	Montserrat To June 30	St. Lucia. To June 30	St. Kitts Nevis. To June 30	St. Vincent. To June 30	Trinidad To June 30
Arrowroot	1,371,760	...
Asphalt	63,291
Baleis	221,320	...	...	...	...	...	...	...	...	2,923
Bananas	196,944	2,012	...	5,258,347	...	1,914	...	...	...
Bauxite	19,497
Bitters
Cacao	328,798	3,328,018	5,357,072	482	1,192,009	...	57,642	33,624,892
Cassava Starch	88,668
Coco-nuts	889,057	2,831,865	103,331	50	14,916,118	...	43,569	240,915	480	9,510,774
Coffee	581,197	...	...	6,777	8,407,464	...	...	...	...	329
Copra	62,694	36,316	...	231,168	330,885	...	51,920	...	190,759	3,962,838
Cotton, M. Galante
Cotton, Sea Island	6,250	100,751	...	...	...	...	...	302,624	...	282,877	231,561	...
Cotton Seed	1,400	...	...	...	...	681,508	...	512,990	...	288,990	150	...
Diamonds	63,500	...	...	...	...	...	...	...	...	...
Dyewoods	16,921	...	...	...	...	...
Ginger	600	1,261,904	...	...	...	650	...
Gold	4,922	...	...	...	...	...	...	...	...	...
Ground Nuts	100	757,288	...	...	18,552	...	...
Honey	70,878	...	...	16,791	...	2	...	...
Lime Juice (raw)	1,040	...	...	...	48,208	9,830	...	480	12,310	...	...	...
... (conctd.)	84,323	1,635	...	...	780	...	...	...
... oil	214,256	...	...	5,040	...	...	...	...
Lime (treats of)	6,073	...	...	...	...	...	...	...	...	...
Logwood
Lumber	70,281	...	...	...	...	...	...	...	...	6,281
Mahogany
Manjak	...	48	...	...	...	...	...	...	...	...	...	...
Molasses	27,406	...	...	...	...	1,533	102,762	198,814	42,785	39,850
Oranges	...	40,971,131	...	...	...	...	133,903	...	229,516	...	900	91,998
Essential Oils	2,931	...	...
Petroleum	27,836,885
Pimento	6,548,664	...	...	...	...	...
Rice	12,220,711	...	...	...	...	...	...	...	...	...
Rubber	4,102
Rum	...	3,255	311,248	1,364	...	...	680,782	...	...	...	...	1,802
Shingles	1,089,630	...	...	...	...	...	...	...	...	...
Sugar	4,258	19,720	43,826	...	...	...	26,188	88	2,624	2,861	83	36,562
Timber	47,920	...	...	...	...	...	2,980	...	...	...

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.
Telegrams—
"Carib. London."



15, SEETHING LANE,
LONDON, E.C. 3.
Aug. 29th, 1922.

BANK RATE. 3 per cent. as from July 18th.

EXCHANGE. Value of the £ Sterling.

	Aug. 15th	Aug. 29th		Aug. 15th	Aug. 29th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	18 4	18 4	In Spain ...	1 2 9	1 2 10
.. France	2 3 10	2 6 3	.. Germany	1784 0 0	362 0 0
.. Belgium	2 8 2	2 8 7	.. Austria	Nominal	Nominal
.. Italy	3 1 8	4 0 11	.. Holland	19 0	19 0

The intrinsic value of the gold sovereign is £1 ls. 10d.

SUGAR. There has been a considerable set-back in the New York Market since our last Summary, the duty-paid value of Cubans declining from 5.36c., the quotation on the 14th, to 5.11c. on the 22nd, and values subsequently falling rapidly as the result of speculative sellings up to the 24th, when Cubans, ex store, were disposed of at 4.80c., duty paid, equivalent to 5.18c. c.i.f., or about 3.03 f.o.b. On the following day the tone was firmer, there being ready buyers at 4.85c., duty paid, with no sellers, and yesterday's quotation was 4.98c., equivalent to 5.37c. c.i.f., or 3.21c. f.o.b.

Future market quotations were:—September, 3.81c.; December, 3.48c.

There has been a considerable reduction in values in the Home Market during the fortnight, to-day's quotation for London Granulated being 52/9, as against 52/9 on the 14th, with a corresponding drop in the values of other sorts. American Granulated was quoted at 49/6 spot; West Indian Crystallised at 42/- to 45/-; Yellow Crystals at 45/3; White Mauritius 47/- to 48/-; and White Java 48/6. The quotation for Cuban 96 deg. was 18/- nominal, with Preferentials at 21/- nominal.

Terminal market values were: 96 deg. nominal; White, September 20/11½; December, 21/2½.

On the 19th inst. the United States Senate passed the Permanent Tariff Bill, in which the sugar duties are raised from 3.18c. for full duty 100 polarisation sugar to 2.50c., making the full duty on 96 deg. 2.30c. instead of 2.00c., and on Cuban 96 degs. 1.84c. instead of 1.60c. The Bill goes now to a Conference Committee, and after adjustment of the different rates between the House and Senate Bills, will have to be again submitted to the House and Senate, and then go to the President for signature. All this takes considerable time.

On the subject of the Sugar Tariff, Messrs. Willett & Gray say that it is extremely to be regretted, to say the least of it, that just at a time when the sugar situation had greatly improved from the distressing conditions of last year, and purely on the basis of supply and demand without Government interference, that the United States Senate should disturb the whole situation by voting an increased tariff on sugar from rates already too high.

The rates under which sugar is now being assessed were put into the Emergency Tariff at a time when an emergency could be reasonably stated to exist, but, as mentioned above, this situation is now past and there is not the slightest necessity or urgency to further increase the rates on sugar. The new proposed rate on 96 deg. test Cuban sugar of 1.84c. will assess a tax on the American public of, approximately, \$200,000,000, only about one-half of which will go into the Treasury of the United States, the balance being a protection to domestic and insular sugar producers.

The increased tax on the consuming public was brought about chiefly by two senators, Senator Wadsworth, of New York, and Senator Willis, of Ohio. While these Senators voted down one amendment increasing duty rates, they agreed to the Smoot amendment increasing the rates, as mentioned above. The vote agreeing to the Smoot amendment was 37 to 35, and the changing of votes by the two named Senators caused the amendment to be adopted.

The total quantity of 1921-22 crop sugar imported from Cuba up to August 5th, was 3,029,724 tons. 2,234,745 tons of this went to the United States, 108,516 tons to Canada, 429,967 tons to the United Kingdom, 106,294 tons to France, 4,258 tons to Spain, and 77,850 tons to other countries in Europe. 68,462 tons were shipped to Japan and China. Up to the corresponding date of last year, only 1,701,984 tons had been shipped, 1,466,756 tons to the United States, 31,401 tons to Canada, 111,666 tons to the United Kingdom, 19,541 tons to France, 14,292 tons to other European countries, 38,741 tons to Japan and China, and 19,597 tons to Australia.

RUM remains flat, with a complete absence of demand for Jamaica kinds. The chaotic exchange conditions continue to prohibit export business.

CACAO. The market generally is very quiet. Ordinary plantation is quoted at 67/- to 68/-, and fine estates at 71/- to 73/-, with a small business passing. There is a slow demand for fine Grenada, which is selling at 57/- to 58/-. Export is dull. Messrs. Edgar Tripp & Co. report that the exports of cacao from Trinidad for June were as follows:—

To all countries ...	6,406,748
Shipped previously ...	27,217,584

Total from January 1st ...	33,624,332
To same date 1921 ...	48,459,502
.. 1920 ...	48,447,777
.. 1919 ...	47,908,019
.. 1918 ...	36,871,408
.. 1917 ...	55,071,088
.. 1916 ...	37,662,970
.. 1915 ...	39,846,825
.. 1914 ...	54,323,618

ARROWROOT. The market is firm, but buyers are reluctant to pay the high prices asked. About 400 barrels of fair to good manufacturing have been sold at 4½d. to 5d.

BALATA is quietly steady, with prices of West Indian unchanged (3/3 spot, 3/2 forward).

BAY OIL continues neglected, and in the absence of demand values are nominal.

COFFEE. At auction on the 24th, home-trade qualities were steady, but export kinds were nearly all bought in. Blue Mountain sold at 110/- to 115/6 for smaller; 132/6 to 140/6 for second sizes; 162/- to 195/6 for held; and 186/- to 205/- for peaberry.

COPRA generally has declined £2 to £3 per ton on the fortnight. Since the 26th inst. the market has been a little steadier, with West Indian c.m.s. quoted at £24 10s. c.i.f.

HONEY remains unchanged. No further auctions have been held, and Jamaica dark liquid to good pale set is now quoted at 26/- to 50/-.

LIME PRODUCTS. Lime Oil. Handpressed is weak, with sellers at 9/-, but no sales reported. Distilled is steady, with sales at 1/11 to 2/-, according to quantity. **Lime Juice.** Arrivals of new season's Raw continue to meet a dull market, with no sales reported. Some further business in concentrated has been done at £17 10s.

LOGWOOD is steady, with a quiet demand. The nominal quotation is unchanged at £8 10s. per ton.

ORANGE OIL. Sweet continues quiet, without change in value. Bitter is neglected.

RUBBER remains in a dull and uninteresting state. Crepe and sheet are quoted at 4d. spot.

SPICES. Small sales of **Pimento** continue to be made at 3d. per lb. spot, but owing to exchange difficulties export is dull. The demand for Jamaica **Ginger** is quite inactive, and very few transactions have been reported during the month. West Indian **Nutmegs** are firm, with sound medium valued at 8d., and bold at 9d. to 9½d. per lb. **Mace** is also firm; red to good pale 1/6 to 1/10, fine 2/-.

TRINIDAD OIL. Production for July: Trinidad Leaseholds, Ltd., 8,600 tons; Apex (Trinidad) Oilfields, Ltd., 7,300 tons; United British Oilfields of Trinidad, 4,883 tons.

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 6542.



15, SEETHING LANE,
LONDON, E.C. 3.

Telegrams:
CARIB, LONDON.

September 12th, 1922

"14, TRINITY SQUARE."

WE are glad to be able to announce that the Executive have now been successful in securing more convenient and commodious premises for THE WEST INDIA COMMITTEE, whose address, on and after the 29th of this month, will consequently be 14, Trinity Square, E.C.3. The new offices are on the first floor of a modern building recently erected immediately to the south of the Port of London Authority's great building which is to be opened by the Prime Minister next month, and a Premises Committee, comprising Mr. W. GILLESPIE, MR. E. A. DE PASS, MR. T. GREENWOOD, MR. H. F. PREVITE, and MR. G. MACGREGOR FRAME is now engaged in the task of equipping the new "Rooms" with modern furniture and fittings. It may be recalled that the decision to obtain new premises was arrived at in 1919 and that with that object in view, and in order also to provide for increased secretarial assistance, an Endowment Fund was then opened. Towards this fund the sum of £23,786 18s. 8d. has so far been raised. It is improbable that the interest on that sum will be sufficient by itself to meet the expense of the developments now in view; but we are reasonably confident that with the greatly increased activities in many directions which it will be possible to conduct from the new headquarters, the membership of THE WEST INDIA COMMITTEE will continue to expand, and that the revenue thus resulting, together with further donations towards the Endowment Fund, which we hope will be forth-

coming, will obviate any serious deficit in the accounts in future. In an early issue we shall hope to publish a plan showing the site of the new offices which, we may mention, is immediately behind Mark Lane Station, on the Underground Railway, and overlooking Trinity Square and the Tower of London, and also some illustrations of the Rooms themselves. The new offices have a commodious room for meetings, which should prove particularly useful during the next few years in connection with the forthcoming British Empire Exhibition, since it will form a convenient rendezvous for the West Indian Group Committee now in course of formation. THE KING, on the occasion of the opening of the London County Council Hall earlier in the year, stated that an institution that was meanly housed was often meanly esteemed. The converse is equally true, and we trust that the influence of the Committee and its power for doing good to the British West Indies, British Guiana and British Honduras will be further intensified, as the result of the move.

TRINIDAD'S OIL INDUSTRY.

THE difficulties under which the oil industry of Trinidad has been labouring are emphasised by the passing of the dividend by the Trinidad Central Oilfields. It may be recalled that in May last the directors of that company intimated to their shareholders that owing to delay in the production programme, and to production not having been commensurate with the drilling effort, they did not anticipate being in a position to recommend a dividend for 1921. Their recent announcement was not, therefore, unexpected; but it deserves of more than passing notice inasmuch as not a single Trinidad oil company now remains in the dividend paying list. After twelve years of development work this state of affairs is, to say the least of it, disappointing; but it has not been a surprise to those acquainted with the difficulties which oil companies outside of the great combines have to face—difficulties not so much of production, as in the case of the Trinidad Central, as of transportation and marketing. The *Manchester Guardian Commercial*, in the first of a series of articles on this subject, in its issue of August 31st, lays stress on this. Says our contemporary, "It is not sufficiently appreciated in the first place, that these big companies (the Combines), with issued capital of many millions, are large combinations or groups engaged in the four functions of production, transportation, refining, and marketing simultaneously, and are, therefore, in the unique position of being able to weather the violent price fluctuations peculiar to an industry in which it is impossible to maintain the balance between demand and supply. Nor is it appreciated,

in the second place, that these large companies or combines can afford to command the best technicians or experts in the different branches of what is a highly skilled industry, can buy their materials more cheaply, can produce with less waste, and can supply markets more economically by reason of the world-wide distribution of their sources of supply." The chief disturbing factor in the Trinidad oil industry at the present time is over-production elsewhere, and notably in Mexico. How long this is likely to last it would be difficult to say. We are constantly told that the Mexican wells are going to salt water, but some are disposed to accept exaggerated statements in this connection with the proverbial pinch of the substance which gives the water its character, and little improvement can be looked for until effective steps are taken to control production in the world's great producing centres—at any rate until trade improves and the demand for oil and its products is stimulated. It has been reported that steps in this direction are already being taken in America, where increased tankage accommodation is being prepared, and if co-operation is secured on a large scale some relief may result. Meanwhile shareholders in companies operating in Trinidad may take heart of grace from the recent figures relating to progress in that island. From the annual report of Mr. A. P. CATHERALL, Inspector of Mines for the Colony, which is summarised in another column, it will be noted that during 1921 the local wells yielded the greatest production of crude oil in the history of the colony, the total output amounting to 82,995,595 imperial gallons, as compared with 72,905,947 and 64,436,632 in the years 1919 and 1920 respectively. This may be regarded as a distinctly encouraging feature, and judging by recent returns for the month of July, when the already restricted production of the Apex Company rose to 3,498,600 gallons, and that of the Leaseholds to 2,793,000 gallons, this total should be exceeded in the year now current, unless the exigencies of the market compel companies to restrict their output. Another hopeful sign is that all the large oil combines are now represented on the Trinidad oilfield, for it is inconceivable that they would be there if they did not believe in its future.

BRITISH SUGAR OR FOREIGN?

A CORRESPONDENT writes to inform us that he has seen displayed in a multiple grocer's shop at a seaside town the announcement, "We do not sell foreign sugar. We only sell —'s refined sugar," and he asks us whether this is a legitimate advertisement, having regard to the fact that the firm of refiners whose name was given of necessity melts more foreign sugar than British. We claim that it is not. No exception could be taken to foreign sugar refined in this country being advertised as "English refined," but it would be quite incorrect to describe such sugar as "British" or "English." This is made clear by the English Customs Regulations, which do not recognise foreign sugar refined in this country as British for the purpose of the Preferential tariff, and we hope that when this is brought before the notice of the company owning the multiple shop, it will see the error of its ways.

SOME NOTES OF INTEREST.

"WATER-MELON never bear punkin."

* * *

THE shares of Home-Grown Sugar, Ltd., had, on August 31st, suffered further decline to 4s. 3d.

* * *

THE sailing of the Harrison Line s.s. *Intaba* has been postponed from October 6th to October 17th.

* * *

SIR LESLIE PROBYN, Governor of Jamaica, and Lady Probyn left Kingston on September 4th on short leave of absence.

* * *

THE total area of beets contracted for by the sugar factories in Sweden for the coming crop is only 13,500 hectares as compared with 42,000 hectares in 1921.

* * *

THE decrease in the foreign demand for Swiss chocolates is attributed to their increased manufacture in countries which formerly procured the supplies from Switzerland.

* * *

THE WEST INDIAN PRODUCE ASSOCIATION, of 14, Creechurch Lane, E.C., have just issued an A.H.C. of West Indian Produce, which begins with All Spice and ends with Wormwood Bitters.

* * *

IN the recent passage of the Permanent Tariff Bill through the United States Senate, no fewer than 2,436 alterations were made in the measure as sent up from the House of Representatives.

* * *

THE *Sugar News* of the Philippines estimates the 1923 sugar crop of those islands at 250,000 tons, provided the locust pest which is troubling the industry is controlled, and weather conditions are favourable.

* * *

MR. E. A. DE PASS has been elected a member of the Committee of the West Indian Club and presided at a dinner given by the members to the Hon. William Morrison, member of the Privy Council of Jamaica, on September 12th.

* * *

MR. AND MRS. GORDON GORDON and their son, who arrived in England by last Dutch mail, are now at Strathpeffer, in the Highlands. Mr. Gordon, who had suffered from fever, benefited greatly by the transatlantic voyage.

* * *

IT is sad to learn that owing to the absence of regular steamship communication between the eastern and western groups of colonies in the Caribbean, the Provincial Synod of the Church of England should have to hold their meeting in New York this year.

* * *

IN a letter to the Editor of *Tropical Life*, the Governor of the Gold Coast estimates the possible cacao production of that colony and Ashanti as 284,000 tons per annum, if only one-ninth of the area for cultivation is used and eight-ninths left for forests to preserve humidity.

READERS in Barbados should in about a month's time be on the look-out for Captain Harold J. Symonds, a plucky Australian, his wife, and a Welsh boy of 18 years of age, who sailed last week from Southampton in the 26-ton yawl-rigged yacht *Seawood* for Madeira and Bridgetown en route to Melbourne.

* * *

In connection with the recent prosecution for the addition of phosphoric acid to lime juice in the manufacture of lime juice cordial, it may be remarked that "phosphated" drinks are common in the United States. They consist of fruit syrups, diluted with soda-water, phosphoric acid being subsequently added.

* * *

A DECOLORISING carbon can be made from megass by charring it at a low temperature, grinding it until it can pass through a sieve of 70 to 90 mesh, heating to 800-850 in a closed vessel, boiling with 20 per cent. solution of caustic soda, washing with water, boiling with a 1 per cent. solution of hydrochloric acid, again washing with water, and drying at 200 deg.

* * *

ONE of the United States Beet Sugar Companies has erected a plant for the utilisation of the residual molasses in the production of industrial alcohol and carbonic acid. Twenty-five tons of molasses will be operated on daily throughout the year. The fermenting vats will be covered so that the carbonic acid formed may be collected, washed and liquefied for sale. A commercial fertiliser will be made from the lees.

* * *

THE Report on the working of the Co-operative Credit Societies of Mauritius for the year ending June 30th, 1921, states that the total available capital at the credit of the Society on the 30th of June of that year amounted to Rs.445,792, exclusive of the interest due on existing loans, an increase of Rs.79,935 as compared with the previous year. Seven new societies were registered during the year. The total number of societies was 33.

* * *

THE total amount of sugar imported into Canada for the three months ending June 30th, 1920, 1921, and 1922 were, for sugars of 16 D.S. and under respectively, 120,900 tons, 68,311 tons, and 153,770 tons. Of these 8,000 tons, 16,000 tons, and 67,000 tons respectively came from the British West Indies. For the first three months of the present year Canada exported 57,000 tons of sugar, 70 per cent. of which came to the United Kingdom.

* * *

NEARLY all the gasoline imported into Cuba comes from the United States, the exports from that country to Cuba having been, in 1919, 3,308,887 U.S.A. galls.; 1920, 8,718,043 galls., and in 1921 2,493,162 galls. About 600,000 galls. of gasoline are made monthly from crude petroleum imported from the United States and Mexico. Alcohol is assuming considerable importance in Cuba as a motor fuel, its selling price being considerably lower.

The Hawaiian Pineapple Company is the largest fruit concern in the Hawaiian Islands, the capital being \$2,600,000 in 180,000 shares of \$20 each, of which \$2,518,920 have been issued. There is no preferential stock or bonded indebtedness, and in 1921 the dividends paid amounted to 20 per cent. Out of the five and a quarter million cases of pineapple products exported from Hawaii last year, 1,544,007 cases belonged to this company. The total area owned is 9,178 acres.

* * *

THE production of iodine in Chile is controlled by the Government, only 500 tons or so being allowed to be exported annually. The effect of this is that a great deal of the iodine mined is lost, by reason of it being more remunerative to extract a portion of the iodine from the ore than the whole or greater part. It is held that, were the production of iodine uncontrolled and a lower excise tax imposed, the producers of nitrate of soda who are also producers of iodine would be able to supply the former product at a lower price than at present.

* * *

THE trade of Canada with the British West Indies, including British Guiana and British Honduras, for the first three months of the present year amounted to \$7,707,300, of which \$5,193,026 consisted of imports into, and \$2,514,274 exports from, Canada. The distribution was as follows:—

	Imports.	Exports.
	\$	\$
British Guiana ...	944,262	447,427
British Honduras ...	5,667	31,922
Barbados ...	1,418,277	275,105
Jamaica ...	1,543,003	393,739
Trinidad and Tobago ...	754,968	833,275
Other British W. Indies	590,949	332,806
Total ...	5,193,026	2,514,274

* * *

AT All Souls', Langham Place, on Saturday, September 9th, Mr. St. John Hodson, Lieutenant 1st Leicestershire Regiment, son of the Rev. Dr. and Mrs. Hodson, of Upnor, Cheltenham, was married to Kate Elsie, younger daughter of Mr. and Mrs. Robert Arthur, of Upton, Barbados. The bride's dress was of white crêpe romaine, embroidered with bugles, and her train was of old Carrickmaecross lace, lent by her Aunt, Mrs. Challenor. The bride was given away by her father, and was attended by two bridesmaids, Miss Barbara Packer, of Barbados, and Miss Tomlinson, of St. Bartholomew's Hospital. The bridegroom was attended by Mr. Stainer as best man, also a lieutenant in the 1st Leicestershire Regiment. After the ceremony a reception was held at the Berners Hotel, Berners Street, and later the bride and bridegroom left by motor-car for Sonning-on-Thames, where the honeymoon is being spent.

RUM SHRUB.—8 gallons of rum, 30 gallons of sugar, 9 pints of lime juice, the peel of 86 limes infused in rum for 24 hours. Three days after making, fine with 3 pints of milk, and bottle in from 3 to 6 weeks.

West Indian recipes for publication in this column will be welcomed by the Editor.

THE AGRICULTURAL COLLEGE.

Term to Commence on October 1st.

With the appointment of Mr. J. Sydney Dash to be Professor of Agriculture and Agronomist the Professorial staff of the West Indian Agricultural College is for the present complete; though, no doubt, in due course a sugar technologist will be required. The staff is now as follows:—Professor of Entomology, Henry Arthur Ballou, M.Sc.; Professor of Mycology, Sydney Francis Ashby, B.Sc.; Professor of Chemistry, Frederick Hardy, M.A., Dip. Ag.; Professor of Botany, Thomas Godfrey Mason, M.A., Sc.B., Agr.B.; Professor of Agriculture, J. Sydney Dash, R.S.A.

Mr. Dash was for some years Assistant to Mr. J. R. Bovell, Superintendent of Agriculture in Barbados, and more recently Director of the Agricultural Department at Pointe-à-Pitre, Guadeloupe.

As already stated, the headquarters of the Imperial Department of Agriculture, consequent upon its amalgamation with the West Indian Agricultural College, have been transferred to Trinidad, where Sir Francis Watts, Principal and Commissioner, arrived on August 19th.

Prior to his departure he received a letter from the Acting Governor, from which the following is an extract:—

"As your departure will mark the close of the long association of this Colony with the Headquarters of the Imperial Department of Agriculture, I cannot let the occasion pass without an expression of regret at the termination of this association between the Colony and a Department whose work has been a landmark in the history of the West Indian Colonies. I beg also to be allowed to express the cordial gratitude of the Government of Barbados for the valuable and ready assistance which the Imperial Department has rendered the local Government on numerous occasions, as well as for many personal courtesies from yourself. In bidding farewell to the Imperial Department, may I also assure you of the warm good wishes of the Barbados Government for the success and prosperity of the Agricultural College in which the Department will now be merged, and of our confident hope that the establishment of the College will prove to be a great step forward in the development of scientific tropical agriculture, not only in the West Indies, but also in a wider field."

Recent advices from Trinidad indicate that rapid progress is being made with the equipment of the temporary premises at St. Augustine, and it is now certain that a limited amount of educational work will be undertaken during the College year, which will commence on October 1st. The staff will also be engaged in carrying on the activities of the Imperial Department of Agriculture.

As at present contemplated, four courses and facilities for study will be available, namely, a Diploma Course, a One Year Course in elementary agriculture science, Courses for Agricultural officers, and Post Graduate Research. The Diploma Course will extend over three years, its object being to give a thorough training in the science and practice of tropical agriculture to those students intend-

ing to become tropical planters, investigators or experts in different branches of agricultural science or technology. The elementary one-year course is intended for those who cannot spare the time for the Diploma Course, and it is intended to impart to them some practical knowledge of the scientific side of tropical planting and the more up-to-date and proficient methods of production and management. The courses for agricultural officers are intended to meet the needs of officers selected for Colonial service in Tropical Agricultural Departments, who will now receive special training prior to their taking up their substantive appointments. The facilities for post-graduate research will be more especially in connection with plant pathology, agronomy and Physiologic botany, and it is understood that several students have already offered themselves for selection.

The fee for tuition in the Diploma Course will be £50 per annum. A limited number of students from Colonies and industries contributing towards the maintenance of the College will be admitted on the nomination of the contributing Governments and/or industries without the payment of tuition fees. Other students from contributing Colonies will be admitted on payment of tuition fees of £25 per annum. Minor laboratory charges, text books, etc., will be extra.

Copies of the prospectus of the first year's studies with particulars regarding admission, etc., can be obtained from the Chief Clerk and Registrar at St. Augustine, Trinidad, or from the Secretary of the West Indian Agricultural College, 15, Seething Lane, London, E.C.3.

THE MAP OF THE WEST INDIES.

Mr. Winston Churchill's Appreciation.

"Mr. Churchill considers the Map to be a valuable one, and notes that it contains diagrams indicating the areas and populations of the West Indian Colonies and islands and other special features which have evidently been carefully thought out."

The above testimony by Mr. Winston Churchill, M.P., Secretary of State for the Colonies, to the value of The West India Committee's Map of the West Indies, was contained in a letter from the Colonial Office in reply to the suggestion that particulars regarding that publication might be brought before the notice of the Educational Authorities in the British West Indies. Mr. Churchill has consented to communicate with the Governments accordingly and it is hoped that the Map may prove a useful factor in conveying to the rising generation in the West Indies knowledge regarding the geography of the colonies in which they live.

Already an order for twelve impressions of the Map has been received from Canadian Mission in Trinidad, and copies have been requisitioned by the Bureau of Foreign and Domestic Commerce, Washington, D.C. Particulars regarding the price of the map will be found on page 421.

THE WORLD'S BIGGEST CENTRAL.

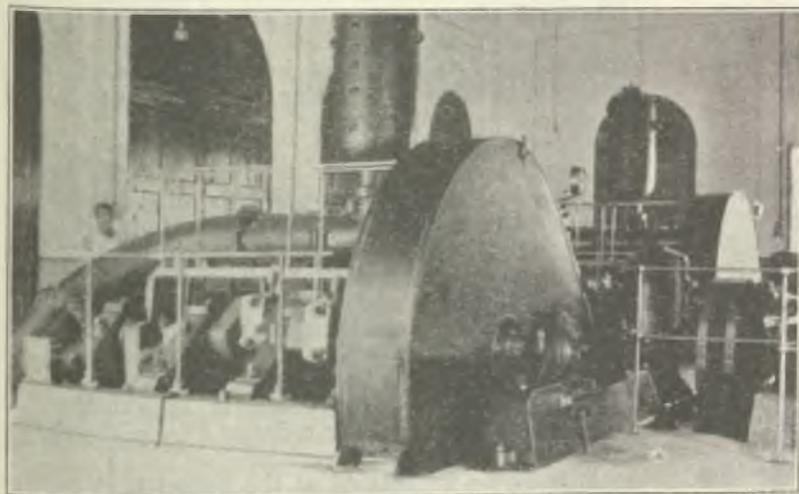
Plantation Delicias in Cuba, says *Facts about Sugar*, filled its millionth bag of sugar for this year's crop on August 14th, and was still grinding. In Cuba seven bags of sugar go to the ton, consequently, 142,000 tons had been the output to that date.

The crushing equipment at Delicias consists of three tandems, each being equipped with double crushers and 15-roller mills. The average tonnage of cane ground per tandem per hour has been 109.5 tons. All the crushing machinery was built by the Fulton Iron Works Company.

The boiler plant consists of 30 multi-tubular boilers of a combined capacity of 7,500 horse-power. In addition the mill has three Babcock and Wilcox boilers of a combined capacity of 16,050 horse-power.

The mill's three evaporators have a total of 33,000 square feet of heating surface, and it has one pre-evaporator of 10,000 square feet. There are nine vacuum pans of 13 feet diameter, which were built by Joseph Out and Sons, R. D. Wood and M. H. Treadwell Company. The last-mentioned concern is also chiefly responsible for the 38 crystallisers, each 9 by 24 feet, with which the mill is equipped. There are 28 forty-inch water-driven centrifugals, and 16 forty-inch electrically-driven centrifugals, all supplied by Watson, Laidlaw and Company.

The megass carriers, sugar conveyors, cane con-



A Turbine at Occorite.

This plant, entirely of British manufacture, can deliver 1,500,000 gallons of water to Port of Spain in 24 hours.

veyors and elevators, with which the mill is fully equipped, were built by the Link-Belt Company, while automatic sugar bagging and weighing machinery was furnished by the Richardson Scale Company. The Link-Belt Company also supplied the carriers feeding each tandem.

PORT-OF-SPAIN'S WATER SUPPLY.

Modern Pumping Station.

The new waterworks pumping station at Cocorite Farm, Port-of-Spain, Trinidad, recently erected by the City Council at a cost of £25,588 18s. 1d., for the purpose of augmenting the supply to the



Trinidad's New Pumping Station.

This new water pumping station has recently been erected at Cocorite, Trinidad. It will greatly augment Port of Spain water supply.

city, was formally opened by the Governor. The system is one of pumping from wells sunk near to each other on the lands of the Cocorite Farm, a coconut estate owned for many years past by the Corporation, all the wells being connected. The plant was designed by the late Mr. Charles A. R. Farrell, B.Sc., City Engineer, to whom is due also the credit of having, by patient and continuous efforts, convinced the authorities that his scheme and his site for the sinking of the wells was the most suitable. Unfortunately Mr. Farrell died before the completion of the erection of the works, though not until very near the end; and the scheme was then brought to completion by the new City Engineer, Mr. T. H. Scott, assisted by Mr. W. J. Anderson, Asst. Engineer, and Mr. W. M. Dickson, mechanical engineer to the Corporation.

The plant comprises a complete duplicate set of engines and pumps. The engines are of the semi-Diesel type, by Messrs. Mirrless, Bickerton, Day & Co., of Stockwell, England; of 200 h.p. each, and their consumption of fuel oil is remarkably low, averaging not more

than 5 gallons per hour when working at full speed. The pumps are of the three-throw ram type, by Messrs. Frank Pearn & Co.

The illustrations on this page are from photographs by Mr. Reginald L. Power, to whom the CIRCULAR is indebted for their loan.

PLANTATION WHITE SUGAR.**The Cause of Deterioration.**

The Department of Agriculture of Mauritius has issued a Bulletin (No. 24) giving the results of investigations conducted by Dr. Tompany, the Director of Agriculture, and Mr. D. D'Emmercz de Charmoy, Assistant Director, in Mauritius in connection with the deterioration of white plantation sugars.

The conclusion arrived at is that the cause is primarily the absorption of moisture from the atmosphere. If such sugar can be protected from absorbing moisture from the air, it will not deteriorate but, on the contrary, will keep indefinitely. The fact that organisms capable of causing destruction of sucrose invariably exist in such sugars is a matter of smaller importance since it is impossible to produce, commercially, absolutely sterile sugars under existing conditions, and if the moisture content does not exceed the danger point they cannot develop.

The question therefore of minimising losses of this description consists essentially in protecting sugars as far as possible from conditions likely to lead to moisture absorption, and in this connection the construction of warehouses where sugar is intended to be stored is a matter of the greatest importance. There is no doubt that existing warehouse accommodation requires to be considerably modified in form if the desired degree of protection is to be fully secured.

In the light of the information brought forward it seems clear that warehouses for the storage of sugar should be solidly constructed, they should be fitted with doors and windows capable of being tightly closed to avoid currents of moist air, and, above all, they should be fitted with floors of non-conducting material; warehouses in which sugar is stored should be opened as infrequently as possible after the sugar has been placed therein and for purposes of inspection it is desirable that protected or double doors should be provided so as to minimise the risk of air currents. To facilitate inspection in stores of this type, electric light would be a very desirable addition. It is possible that some special provision could be made for drying the air, inside sugar stores, but on this point it is not possible to pronounce a definite opinion at present.

It is, however, of interest to note that jute, of which material sugar bags are universally made, possesses great hygroscopic power. To exemplify this it may be stated that a sample piece of jute bag exposed to a damp atmosphere for 10 days had at the end of that time absorbed 85 per cent. of its weight of moisture. It seems not improbable that this property of jute may assist in drying the air in sugar stores to some extent and so may tend to counteract the conditions leading to deterioration. Another practice which has been found of use in other countries in counteracting the tendency to moisture absorption lies in the use of crinkled paper linings for sugar bags, which tends to protect the sugar from direct contact with the air.

(Continued at foot of next column.)

REFINED SUGAR IN INDIA.**The Influence of Religious Sentiment.**

BY RAO SAHEB KASANJI D. NAIK, M.A.

Officiating Secretary of the Pusa Sugar Bureau of the Imperial Department of Agriculture in India.

Any estimate of the total production of refined sugar in India should include not only the output of factories making sugar direct from cane and of modern refineries working with gur or rab as their raw material, but also sugar refined in small establishments following the indigenous method of sugar-making. As will be seen below, this industry is not insignificant as it produced no less than 58,000 tons of sugar in the year 1920.

The amount of sugar refined each year depends entirely on the price of sugar and the character of the season. In fact the decline of this industry synchronises with the increasing import of cheap foreign sugar. The stock in trade required is practically nil, consisting of a masonry pit, and a certain number of sacks or earthen vessels and the bamboos through which the molasses runs.

This process of making sugar is extremely wasteful as it enables the khandari to recover only from three to four maunds of sugar from 100 maunds of cane, against nearly 9.5 maunds obtainable in up-to-date factories and 4½—5½ maunds obtained in modern refineries working with gur as their raw material. The cost of production is so high that it has a limited market only among orthodox Hindus, the product not being able to compete with imported sugar or sugar made in India by modern factory methods. As a matter of fact, it is only the prevalence of a religious sentiment among Hindus in favour of country-made sugar free from the use of bone char in refining, which has enabled this process still to exist in some parts of India, e.g., United Provinces, Punjab, Bihar, Bengal and Madras.

A brief description of the process will not be without interest to some readers. In the United Provinces where rab (mixed crystallized sugar and molasses) is the material used for refining it is put into gunny bags, which are stacked in piles, and are pressed down by the feet. The molasses exudes through the bags and runs off in small drains. The resulting product is then removed from the bags and stacked to a depth of three or four feet on bamboos covered with reeds or cotton stalks. The further treatment to which it is submitted is similar to that used for refining gur, a description of which is given below.

It may be mentioned at the outset that country gur refineries work on more or less the same prin-

It is not to be inferred, says the Bulletin, that attention to cleanliness and consequent minimisation of infection with micro-organisms is to be neglected, but the fact remains that the prime cause of deterioration of white sugar lies not so much in the organisms which they contain as in the atmospheric conditions at the point of storage.

cles. The only difference is in the method of curing, which differs in different provinces. The process, as described by Mr. Maxwell, Manager of the New Savan Sugar Works, is as follows:—

The gur is melted down to a density of about 25 degrees Beaumé with water and concentrated to a massecurite in open pans. The finished massecurite is either cured in hand centrifugals, which is no doubt the more economical method of the two, or is discharged into draining baskets consisting of a wooden framework 2 ft. wide, 4 ft. long and 2 ft. deep, lined with bamboo matting, through which the mother liquor is allowed to drain out in the course of a month or three weeks, according to the viscosity of the boiling. The result is a yellow-brown concrete sugar remaining inside the matting-lined box. In order to obtain a higher grade of sugar (i.e., a fine whitish grain sugar) this sugar is covered with a layer of one to two inches of a water weed called "sewar," which is renewed from time to time. The action of this weed is twofold, viz., gradually dissolving the film of molasses surrounding the crystals, which is carried downwards, and ultimately comes out through the apertures of the bamboo matting and (2) the bleaching effect produced by the acids of the weed. The process is obviously very slow. From time to time a layer of a few inches of the clarified sugar is scraped off the top as a whitish concrete sugar. This is spread out on mats and the adhering crystals are separated by the primitive method of tramping with the feet. The result is a granulated, fine grain, whitish sugar which commands a high price in the market as being real deshi sugar.

In Southern India, when country sugar is to be made, treacle is prepared and stored in earthen pots having a narrow mouth. These pots are placed one over the other with their tops down, so that the molasses runs out easily. They are kept in this position for not less than two months. The raw sugar is then transferred to cylindrical bamboo baskets and undergoes a process of refining similar to that described as prevalent in other parts. The resulting product is called *china*, which is further subjected to boiling, addition of milk water and removal of impurities. The final product so obtained is called *bara*. It is dried in the mats for a day or two and then packed into bags.

In the year 1920, when the price of sugar was the highest ever recorded, the Directors of Agriculture in the various provinces were requested by the Secretary of the Sugar Bureau to ascertain the extent of this industry in their respective provinces and furnish information regarding the number of such refineries and their total output. From the returns forwarded by them the number of refineries in operation in 1920, worked out to 3,188, of which 1,791 were in the United Provinces; 1,086 in the Punjab, 206 in Bihar and Orissa, 81 in Bengal, 22 in Madras and one each in Assam and Burma. In the Central Provinces, Bombay, and the North-West Frontier Province, no such refineries were reported to be in existence.

The total output of sugar from these establishments is given below:—

CACAO AND EDUCATION.

A system of teaching geography to children by means of cacao is recommended by the Francis P. W. Parker School in Chicago. This school was one of the pioneers in using new materials in education, and publishes a year-book outlining its methods which is studied all over the country. Cacao was selected because it had a direct appeal to the children and because it represented the tropical countries in the same way that meat represented the temperate and arctic regions. While this is not an innovation of the last year, it is interesting because it indicates the lines along which schools are working.

The system followed is thus described by the *Tea and Coffee Trade Journal*: Prior to the start of the journey in search of cacao, a large loose-leaf note-book is made by each child. This is the Travel Book for his record.

Preparations are made for the trip from Chicago to New York. The Great White Fleet steamer is used from New York to Jamaica. A day's visit is made to a cacao plantation in Jamaica. Full observations of the planting, growth, gathering, and preparing for shipment of the cacao beans is made.

At this point a real trip is taken to the Garfield Park Conservatory, to see a real cacao tree. A second real trip is then taken to a candy factory, where are seen the full processes of making cocoa and chocolate. The amount of cacao beans used by this factory raises the question, Does Jamaica supply the world with cacao?

The imaginary trip is resumed in the quest for countries similar in climate to that of Jamaica. As the children go along they study all the features of the country. For instance, they make a real trip to the Lincoln Park Zoo to see the animals met with on the journey, and when some questions arose as to the sun's rays in relation to weather they wrote to schools in Kingston, Havana, Rio de Janeiro, and Buenos Aires asking for the facts.

	Number of Establishments.	Sugar made in Mds.	in Tons
United Provinces	1791	1,306,748	47,989
Punjab	1086	32,980	1,200
Bihar and Orissa	206	110,202	4,040
* Bengal	81	77,925	2,857
Madras	22	59,388	2,179
Assam	1	918	35
Burma	1	300	11
	3188	1,590,491	58,320

As mentioned above, the industry depends for its existence not upon economic grounds but on religious sentiment. With the gradual weakening of that sentiment, the establishment of more modern factories in India, and the increasing cheapness of the product manufactured in up-to-date factories, this industry will lose its importance even if it does not wholly die out.

* In Bengal the industry is prevalent in the two districts of Jessore and Faridpur, where the Jaggery or gur refined is produced from date-palms.

HUMUS AND PHOSPHORIC ACID.

A useful article by Mr. K. Mack on the Influence of Humic Acids on the Assimilation of Phosphoric Acid has recently appeared in the *Chemiker Zeitung*. For the following abstract of it the *Circular* is indebted to *The Fertiliser and Feeding-Stuffs Journal*.

Phosphoric acid, says Mr. Mack, occurs in the soil in the form of mono-, di- and tri-phosphates of the alkali metals, calcium, aluminium, magnesium, iron and manganese, and possibly also as tetraphosphates of the heavier of these metals. It is also precipitated by their hydroxides, carbonates and silicates from the soil water in which it exists as ions, these insoluble phosphates being partially converted into soluble forms by bacterial action, that is to say by the carbon dioxide and the organic acids resulting from such action in the soil. A solvent action is also exerted by the considerable quantities of humic acids present. Furthermore, the stubble and roots of plants and other vegetable matter furnish the soil with phosphoric acid in different forms of organic combination, such as phosphatides, phytines and nucleoproteids. Stocklass, in experiments on the assimilation of phosphoric acids by bacteria, found that the combined acid in soil is far more readily assimilated than are the pure insoluble phosphates, and he therefore assumed the existence of previously unrecognised forms of phosphates, viz., readily assimilable "humophosphates."

The author has isolated humic acids from peat and separated the alkali humates, by treatment with sodium chloride solution, into a soluble and an insoluble form, from both of which the humic acid can be precipitated completely by inorganic acids, and also by organic acids when sodium chloride is present. In the former case, the precipitated acid is soluble in pure water while fresh, but loses this property on being dried. The finely powdered humic acid was allowed to react with secondary and tertiary calcium phosphate and with the tertiary phosphates of iron and aluminium, in the proportion of 10 grms. of humic acid to 1/100th molecule of phosphoric acid, and sufficient water to make 1 litre, the mixture being kept at room temperature for 48 hours, with occasional shaking.

In all cases the insoluble phosphates were partially transformed into soluble monophosphates, the greatest effect (28.46 to 29.45 per cent. of the total phosphorus pentoxide present) being obtained with the calcium phosphates, the proportions with aluminium and iron phosphates being 12.54 per cent. and 7.46 per cent. respectively. On converting the humic acid into ammonium humate, by treatment with ammonia, the amount of monophosphate formed was slightly less in the case of calcium (23.08 per cent.), but higher in the case of aluminium (28.77 per cent.) and iron (20.87 per cent.). Similar results were furnished by the potassium and sodium salts of humic acid, but the experiments were not carried any further with these compounds, since the bases themselves have

a greater dissociative action on phosphates than is the case with ammonia.

To ascertain how the humic substances in the soil behave towards the insoluble phosphates, several specimens of humus soil were extracted with weak (0.5 per cent.) ammonia, after the dissociated phosphates had been washed out with pure water. The first sample (woodland soil), containing 0.095 per cent. of phosphorus pentoxide, furnished 2.86 per cent. of dry (ammonia) extract, which, on calcination, yielded 0.0488 per cent. of phosphorus pentoxide (51.37 per cent. of the total oxide), 0.0439 per cent. of ferric oxide, 0.0192 per cent. of alumina and 0.0113 per cent. of lime.

The second sample was from a compost heap mixed with bone meal and lime, and contained 0.274 per cent. of phosphorus pentoxide. The dried ammoniacal extract weighed 3.21 per cent. and the ash of same furnished 0.0096 per cent. of phosphorus pentoxide (3.5 per cent. of the total oxide), 0.022 per cent. of ferric oxide and alumina and 0.141 per cent. of lime. The third sample—well-manured garden soil—contained 0.146 per cent. of pentoxide, and the dried extract weighed 3.57 per cent., the ash furnishing 0.0309 per cent. of pentoxide (25.27 per cent. of the total), 0.1033 per cent. of ferric oxide and alumina and 0.1207 per cent. of lime. Ten grms. of the ammoniacal extract were extracted with ether and then with alcohol, the former dissolving out 0.024 gm. of a bituminous substance free from phosphoric acid. The alcohol extracted 1.782 gm. of a dark brown substance soluble in water and containing 0.0049 gm. of phosphorus pentoxide, together with traces of iron and calcium. The presence of ammonium phosphate in the ammoniacal extract was tested for by treating 10 grms. with semi-saturated sodium chloride solution. Owing to the partial solubility of the extract, the filtrate was treated with more sodium chloride and rendered distinctly acid with hydrochloric acid, which precipitated the humic acid almost completely. After adding ammonium citrate, on account of the iron, lime and alumina, the phosphoric acid was thrown down with magnesia mixture, 0.0015 gm. of pentoxide being obtained.

Since, in all three cases, there was an excess of bases, the phosphoric acid was mainly in the condition of basic phosphates, which explains the small amount extractible from the garden soil by the sodium chloride treatment. In spite of the relatively large amount of phosphoric acid in the soil, the amount obtained in the extract was surprisingly small, and explains the bad effect of overliming moorland soils. The existing assumption that the humic acids contain phosphoric acid in organic combination must be characterised as erroneous. The iron and alumina present in all soils not only precipitate the soluble phosphates from the soil water, but are also able to extract phosphoric acid from the insoluble phosphates present. In presence of alkalis or alkaline salts, the phosphates of iron and alumina in the soil are combined by the humus complex, and the circum-

stance that the slightly alkaline soils are the most fruitful indicates the formation of soluble salts of the humatophosphatoferric (and aluminic) acids in such soils. In consequence of the high absorptive capacity of these soils and the colloidal character of the complex acids and salts in question, only very small quantities of the complex phosphoric acid compounds escape into the subsoil.

Experiments have shown that the humatophosphatoferric (and aluminic) acids are more readily assimilated by plants than inorganic phosphoric acid, and it would appear that the success attending the use of ferric hydroxide as an addition to calcium cyanamide and sulphate of ammonia is due to the resulting formation of humatophosphato-ferric salts.

The conclusions to be drawn from these investigations are that ferruginous deposits of crude phosphates, though they cannot be entirely converted into soluble phosphates, are suitable for application to soils containing humus and of a slightly alkaline character, since, under these conditions, the phosphoric acid is rendered easily assimilable. The only preliminary treatment required is such as will destroy the crystalline structure. The effect of such phosphates is improved by the joint application of manures furnishing humus, and where such manures are lacking, peat forms a valuable substitute, since it also supplies nitrogen and food for the soil bacteria.

THE BARBADOS-MIAMI CABLE.

International Controversy Ended.

The United States Government, having at last consented to the landing of the Barbados-Florida cable at Miami, the new telegraphic route between Brazil and America, in which it forms a link, was formally opened on September 7th, the day on which the centenary of the Independence of Brazil was celebrated. The Miami-Barbados cable is owned by the Western Union Company, an American concern, whilst the Pernambuco-Barbados link is the property of the English Western Telegraph Company, to whose monopoly in South America Washington objected. An acute international controversy was raised, and for nearly two years the shore end of the cable has been buoyed off the Florida coast.

It will be recalled that Barbados, in granting landing rights, made it a condition that the companies should accept messages for transmission from Barbados to the United Kingdom when all existing routes were interrupted. The new cables are very clearly and distinctly marked on The West India Committee's new wall map, to which reference is made elsewhere in this issue.

The price of the Map, which is obtainable from The West India Committee, 15, Seething Lane, London, E.C.3, is as follows:—

	Price	Post Free U.K.	Post Free W. Indies	Other Countries
Sheet	7/6	8/6	9/6	10/6
Mounted and folded ...	15/-	15/6	15/6	15/6
Mounted on rollers ...	12/6	14/-	10/-	*

*British West Indies 19/-; Canada 22/-; elsewhere according to destination.

TRINIDAD CHOCOLATE.

Possibilities of the Local Market.

A Committee of the Trinidad Agricultural Society has had under consideration the question of the manufacture of chocolate in the island. Their report, which is signed by Mr. A. B. Stolbmeyer, is now available. From this it appears that the committee met on four occasions, and restricted their efforts firstly to the consideration of the commercial side of investigating the possibilities of manufacturing locally and shipping chocolate in partly manufactured or "block" form to the manufacturers, instead of in the raw bean. To this end, they corresponded with representative firms in the United Kingdom, France, Holland, Canada, and the United States, and their finding have been that apart from existing protective duties on the manufactured article into these countries, general expressions deprecating the suggestion were made by importers and manufacturers alike, on the grounds of the introduction of an article to which they have been unaccustomed, and to the fact that departure from the accepted process of manufacture would be entailed.

The consideration of the possibilities attached to manufacturing chocolate for local consumption, and for nearby export trade, was also engaged in, and in this the committee found that there was material room for expansion with success, if manufacture be undertaken on co-operative lines by planters based on a similar organisation to that which obtains at present in Ceylon. They were informed that in that colony success was conditional on a sufficient factory capacity to merit up-to-date equipment, the employment of a trainer and responsible manager, and a travelling representative to introduce their products into nearby markets.

HOME-GROWN SUGAR.

A Forthcoming Amalgamation.

In accordance with the working arrangements which have been entered into with the view to the future amalgamation of the Kelham and Cantley sugar beet schemes, it has been arranged for the sugar beet crops of the Kelham growers to be worked at the Cantley beet sugar factory this year. By dealing with the total acreage of beet now being grown in this country (upwards of 8,000 acres) at one factory, so that it can work at its full capacity, it is hoped to secure the lowest economic cost of sugar production for future guidance. In the meantime proposals for extending and improving the Kelham beet sugar factory are under consideration, with the same object in view for future seasons.

The beet contracts department of Home Crown Sugar, Ltd. (Kelham), has been placed at the disposal of the English Beet Sugar Corporation, Ltd. (Cantley), for the present campaign, and Mr. Alfred Wood, F.C.A., the Secretary of Home Crown Sugar, Ltd., has agreed to act as Assistant Secretary of the English Beet Sugar Corporation, Ltd. It is the intention of both companies that Mr. Wood shall be appointed to be the Secretary of the new company when the proposed amalgamation has been effected.

A FRUIT TRADE FOR TRINIDAD.

Fruit-growing in Trinidad and Tobago, said Mr. Stollmeyer, discussing a paper on "Trinidad's Fruit-growing Possibilities," read at a meeting of the Trinidad Agricultural Society on March 5th,* is replete with possibilities, not only to supply adequately a rapidly growing local demand, but in bringing the colony's products to the markets of the world. "Attempts in the past have been made to encourage the growing of fruit here on a commercial scale, but the efforts were unsuccessful for many reasons, the chief among which I venture to say was the lack of confidence at that period in its future, and there was much to justify this feeling. The outlook in the past seemed to hold out no measure of hope that such an industry would ultimately receive support, and be stabilized, and under such conditions it was not possible to view its future with anything like encouragement. Times have happily changed for the better, and the political atmosphere is such to-day that it is pleasing to feel we can entertain the thought that initiative and enterprise can command a measure of recognition and reward. My purpose is not to indulge in platitudes, but to endeavour to place before this Society and through it to the agriculturists of our neighbouring islands—for my sentiments can be of equal benefit and applicable to the group—the possibilities which the development of this industry can offer.

"To be brief, three main questions require to be dealt with, they are:—

- (1) Can we produce fruit such as oranges, bananas and pineapples with equal success, as they can be grown in the present centres of supply?
- (2) On what market in particular can we depend, and can we look forward to the proper means of transporting our fruit to that market when it is available? and
- (3) Can we market our fruit profitably, and successfully meet competition?

"I say with every assurance that these questions can be answered in the affirmative, and for these reasons I feel justified in asking the serious consideration of agriculturists to the development of this industry. With regard to the first question: The suitability of soils and climate of these islands for fruit-growing can not only compare favourably with other producing centres, but in my own opinion they are in every way very much more adaptable. The natural soils of this island and, generally speaking, of the West Indies for citrus, bananas and pineapples may be considered as wonderful in comparison with, for instance, those of Florida and California where success in great measure is attendant on the most intensive culture including irrigation. Our average rainfall is adequate, in fact, is all that could be desired, and provided means are adopted to conserve this natural moisture in our hilly and lesser damp situations, no irrigation is imperative. With these advantages we can without doubt produce these fruits at least equal in excellence to, and perhaps

more economically than our Northern neighbours. The fact that these fruits are of tropical origin, and these Islands are their natural habitat is in itself sufficient to justify this proof. The answers to questions 2 and 3 are vital, for after having produced our fruit we naturally must look for a market and a profitable one, and a means of transport to that market, for unless we can entertain reasonable hope that these assurances are dependable it would be idle to attempt the growing.

"The fruit trade is one that should move quickly, and requires a frequent and regular steamship service. Our markets are not limited, but my view is that Canada would be our best outlet, and we have in her government Mercantile Marine a means of transport which needs encouragement and support. In the course of time there is every reason to believe that the Canadian Government as a result of our reciprocal treaty would quite willingly afford fruit protective encouragement, and we would be justified when we have the necessary quantity to offer, to make representation under this treaty for a preference at least equal to the present tariff now inflicted on British fruit entering the ports of the United States. For these reasons I cannot express too strongly the inestimable value which the adoption of this service of steamers, and this market, would be to this industry. In the course of time when our production demands it, the request for refrigerated space could be called for to carry bananas and pineapples in the summer, and we could accommodate them—if we have a will to do it—with a sufficient number of oranges and grape-fruit to cope with the ever-growing demands of the Dominion. It will interest you to know that the importations of oranges and grape fruit into Canada during 1921 were roughly respectively 250,000,000 and 20,000,000, all of which with little exception were grown in California and Florida. This is an example of their present consumption and an index to their future requirement. The future of this industry has no illusion for me, and I am a very enthusiastic believer in it. Proper handling will be necessary and, above all, efficient organisation and alliance of growers on this side, and on the other, interested representatives, all of which can be brought about with intelligent application."

BRITISH GUIANA SUGAR EXPORTS.

The CIRCULAR is indebted to the British Guiana Sugar Proprietors for the following statement showing the quantities and value of sugar exported to the United Kingdom and Canada during the period 1st January to 28th July, 1922.

Months.	United Kingdom.		Canada.	
	Quantity. Tons.	Value. \$ c.	Quantity. Tons.	Value. \$ c.
January	982	64,916 00	1356 ½	78,315 00
February	3906 ¼	255,681 00	4081 ¼	286,827 00
March	2189 ½	154,915 00	5346 ½	335,244 00
April	147 ½	9,750 00	7278 ½	475,378 00
May	5949 ½	563,539 00	1787 ½	119,443 00
June	5419 ½	370,236 00	5047 ½	371,113 00
July	2350 ½	194,495 00	5733 ½	477,755 00
Total	21314 ¼	\$1,613,472 00	30636 ¼	\$2,148,973 00

* See THE WEST INDIA COMMITTEE CIRCULAR, No. 617, p. 263.

TRINIDAD'S OIL INDUSTRY.

Record Production in 1921.

In his annual report on the Mines Branch of the Lands and Mines Department of Trinidad, Mr. A. P. Catherall, Inspector of Mines, gives, as usual, a valuable account of the development of the local oil industry.

During 1921, the year under review, there was much activity in this industry. There was a considerable increase in the footage drilled by the various oil companies, with the result that the production of crude oil has also been largely increased. During the year 1921 the greatest production of crude oil in the history of the colony has been obtained. Although the exports of crude oil and its products during the period under review show an increase over the year 1920, they are still below the quantities exported in 1918 and 1919; there were, however, at the close of the year large stocks in storage. The Admiralty continue to purchase considerable quantities of oil fuel, and have entered into new contracts to take supplies from two local companies, viz., the Trinidad Leaseholds, Ltd., and the United British Refineries, Ltd. Shipments of both crude oil and refined products continue to be made to private firms in the United Kingdom, and there is also a considerable trade with the other West Indian Colonies. Regular shipments are also made by steamers calling at Trinidad for oil bunkers.

The following table shows the number of feet drilled and the quantity of oil produced during the period under review as compared with the years 1919 and 1920:—

	1919.		1920.		1921.	
	Feet drilled.	Oil Won. Imp.gals.	Feet drilled.	Oil Won. Imp.gals.	Feet drilled.	Oil Won. Imp.gals.
Crown Lands	49,122	53,534,295	53,404	61,532,046	70,710	61,325,279
Private Lands	16,937	10,902,337	23,972	11,373,901	46,150	21,070,316
Total	66,059	64,436,632	77,376	72,905,947	116,860	82,395,595

During the year 1921 the number of new wells drilled was 84 (49 on Crown lands and 35 on private lands), a total increase of 17 over the previous year. In 42 of these wells oil was struck. The total number of wells drilled in the colony from the commencement of operations to December 31st last was 607, of which 362 were on Crown lands.

At the close of the year 1921, 20 companies were actively engaged in the winning of oil, as against 22 at the end of 1920. Several companies had, however, temporarily suspended operations just before the end of the year.

Details regarding the work of the various companies are given in the report, which can be seen at The West India Committee Rooms.

MR. C. B. R. KING, M.A., and Mr. J. O. Gordon leave Dover in the Dutch mail s.s. *Venezuela* on September 6th for Trinidad, where they will enter the West Indian Agricultural College as students.

To obviate the removal of their names from the mailing list for the CIRCULAR, members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

COTTON IN AFRICA.

Nigeria's Output of Long-Staple.

The cultivation of improved long-staple cotton in the Northern Provinces of Nigeria continues to make steady progress, and it was stated at the last meeting of the Council of the British Cotton Growing Association that the purchases of this type of cotton so far this year constitutes a record—namely, 7,857 bales, as compared with 5,016 bales for the same period of last year. The Association have concentrated their efforts for some years towards encouraging the cultivation of improved cotton in the Northern Provinces, and the results achieved have been most gratifying. The exports of cotton from Uganda in 1921 amounted to 81,340 bales, which constitute a record, and compare with 52,000 bales for the previous year. Unfortunately there has been a severe drought in most districts during the growing season of the 1921-22 crop, with the result that the production is expected to show a large falling-off. At the same time efforts are being made to induce the natives to cultivate a second crop by early planting, in order to obtain a harvest about October-November. This has been done before, and has been fairly successful.

OBITUARY.

MAJOR GARDINER BRUCE AUSTIN.

It is with great regret that we have to record the death of Major Gardiner Bruce Austin, which took place in Trinidad on August 10th.

Possessed of a genial and engaging personality and gifted with irrepressible *bonhomie*, Major Bruce Austin, better known to his intimates as "Stiggs," enjoyed wide popularity not only in the islands of his birth and adoption but also throughout the West Indies and at home. Born in 1864, he was the son of the Rev. Preston Bruce Austin, Rector of St. James and St. Philip, in Barbados, with which island the family has been connected for generations. After receiving his education at Harrison College he joined the firm of Cavan & Co., now Gardiner, Austin & Co.; but later he entered the service of the Standard Life Assurance Company to which he became Inspector of Agencies, and eventually head of their office in Port of Spain. An enthusiastic volunteer he commanded the Trinidad Light Horse, only retiring after the war. He was married to Miss Marie Damien, who predeceased him, and leaves two sons and a daughter with whom much sympathy will be felt. The last sad ceremony took place at St. Mary's, Tacarigua, where Major Bruce Austin was laid to rest in the presence of a large gathering of his friends.

THE following publications are obtainable at The West India Committee Rooms, 15, Seething Lane, London, E.C. :—

"The Manufacture of Cane Sugar," by Jones and Scard; 26/- (Post free).

"The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Fawcett; 16/- (Post free).

"Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/- (Post free).

WITHERTIP IN DOMINICA.

Is Poor Cultivation the Cause?

Mr. S. F. Ashby, Mycologist on the staff of the Imperial Department of Agriculture, recently visited Dominica to investigate an outbreak of Withertip disease, which has been attacking the lime plantations in that island. He found the disease more widely distributed than was at first suspected, occurring as it did in the Roseau Valley and at Sherwood, Sautoun, etc., as well as in the Grand Bay District.

It is doubtless too early yet to decide what effect the blossom blight and fruit spot form of the disease is likely to produce on the late crop, but Mr. Ashby suggests that observations in regard to that should be made by the agricultural officers in co-operation with planters. It is also desirable to form an estimate of the injury due to the withertip form of the disease, especially on young trees and also in nurseries. In making such observations due regard should be given to the age and situation, soil, humidity (including rainfall) and management (including drainage and manuring) of the plantations.

Mr. Ashby considers it to be quite probable that the clothes of labourers are an important means of spreading the spores of the fungus in individual estates, especially when they are moving about among trees wet with rain or dew. In this way the disease could be readily carried from one field to another separated by a wind-break, where the spores would have difficulty in passing through such a wind-break by natural agencies. Bees, however, are likely to be an important means of spreading the blossom-blight form of the disease.

The fungus isolated from anthracnose spots on ripe limes has so far been the common normally saprophytic strain of *Colletrichum gloeosporoides*, so it is very doubtful if the withertip strain is able to infect the rinds of ripe fruit.

Mr. Rorer found in Trinidad that the disease attacked seedlings in the nursery. It would therefore, says Mr. Ashby, be advisable to have the ingredients for the Bordeaux-resin wash available for spraying should withertip appear in the nurseries at the Botanic Station. Mr. Rorer pointed out, in the *Trinidad Bulletin*, that the Director of Agriculture had written:—"In the course of a visit paid one day by Mr. Ulrich and myself to three lime estates in Trinidad with very similar climatic conditions, it was noticeable that the disease was much more marked in places where the cultivation was poor. Thus, on one estate, the older trees which had been in an abandoned condition for several years, were badly affected, whilst close by young trees under good cultivation showed no sign at all of the disease." It may be remarked that in Tobago, where withertip has been present for a number of years, it is not regarded as a cause of serious injury.

The Subscription of Candidates elected to the West India Committee during the last three months of the current year will, when paid, not be renewable until January 1st, 1924.

COLONIAL REPORTS.

Grenada's Cacao Industry.

The report of Mr. N. Julian Paterson, Acting Colonial Secretary, on Grenada for the year 1921 is brief but instructive.

The revenue amounted to £97,931, and the expenditure to £136,969, showing a deficit of £39,038. This is mainly the result of the fall of the market prices for cacao, the Colony's staple product. The following comparative statement indicates the extent of this fall:—

VALUE OF CACAO EXPORTED FROM THE COLONY.

	£		£
1917	412,261	1920	466,658
1918	519,305	1921	185,193
1919	539,740		

The corresponding figures of revenue and expenditure for previous years are as follow:—

Year.	Revenue		Expenditure	
	£		£	
1916-17	114,525	...	108,078	...
1917-18	106,138	...	109,390	...
1918-19	110,357	...	108,252	...
1919 (nine months)	87,205	...	107,011	...
1920	134,128	...	148,174	...

The assets of the Colony at December 31st, 1921, stood at £97,512, and the liabilities at £110,800, showing a net deficit of £13,288. The public debt at the same date was £223,670, and the sinking fund £62,427.

The values of the exports for the last four years are shown in the following statement:—

Country.	1918.	1919.	1920.	1921.
	£	£	£	£
United Kingdom	386,348	238,642	436,531	165,950
Canada	15,056	10,902	15,527	16,401
Trinidad	6,548	78,569	32,155	33,725
U.S. of America	290,039	107,867	108,955	51,969

By the Census it was shown that the population was 448 less than that in April, 1911. This result is attributed to the constant stream of emigration to the Canal Zone, Cuba, the United States of America and other places. The birth-rate per thousand was 34.86 and the death rate 19.5. Judging from the returns as to deaths caused by syphilis, it would appear that the operation of the Venereal Diseases Ordinance of 1917 is producing beneficial results. In 1921 the number of deaths caused by that disease was 18 as compared with 25 in 1920, and 38 in 1919.

A MINIATURE MILL PLANT.

The Fulton Ironworks have recently erected a milling plant for a sugar factory in Salvador, which is unique of its kind, inasmuch as, while it is complete in itself as any modern milling plant, and constructed to stand quite as severe strains, it is only sized to grind 6 tons of canes per hour. The plant consists of a crusher and three 3-roll mill nuts with rolls 18 in. by 30 in. Hydraulic attachments are fitted to the top rolls of the mill nuts, and the whole plant is worked by an 18 in. by 42 in. Corliss engine operating through solid compound gearing.

JOTTINGS FROM MY NOTEBOOK.

By "ACRONOMIST."

Several acres of good quality tobacco have recently been reaped at Church Crookham in Hampshire.

* * *

That useful field product the soya bean mainly comes from China, which supplies 80 per cent. of the world's production. Between 60 and 70 per cent. of this is derived from Manchuria.

* * *

During January-July of the present years 36,871 cwts. of ginger were imported into the United Kingdom of the value of £121,264, as against 13,664 cwts. of the value of £41,602 in the first seven months of 1921.

* * *

The sugar beet has its insect troubles as well as the sugar cane. Among these are web-worms and army-worms, blister and leaf beetles, together with special local brands of insect pests. The principal damage is done to the leaves, growth being thus retarded. As a rule, however, the insect enemies of the sugar beet are more or less local and are seldom very destructive for more than one or two years in succession.

* * *

On the subject of the rationing of pigs, Professor Eward, of the Iowa Agricultural College, says that a young growing pig weighing between 30 to 60 lbs. should get about 1 lb. of protein for every pound of carbohydrates, when 100 lbs. weight is reached the proportion of protein to carbohydrates should be as one to five; at 150 lbs. one to six, and at full growth, with a weight of from 240 to 300 lbs., the proportion should be as one to eight.

* * *

During the early part of 1921, half the automobiles of Pernambuco were using alcohol fuel to the amount of, approximately, 20,000 gallons per month, the spirit used being alcohol from the sugar-cane products mixed with various percentages of kerosene or other mineral oils. At the present time, however, according to the American consul at Pernambuco, 90 per cent. of the vehicles using alcohol have gone back to gasoline.

* * *

Fur-farming promises to become a great industry in Canada. It has now advanced beyond the experimental stage, and in 1921 there were 794 fur farms in operation, an increase on the 1920 figure of 20%, in spite of the slump in values of furs during that year. They consisted of 758 fox farms, 12 mink farms, nine racoon, three marten, two skunk, four Karatal sheep, three beaver and three musk rat farms. The total receipts of the farms in 1921 amounted to \$1,415,236.

* * *

Mr. A. Carr Bennett contributes an article to *Nicko's* June number, in which he points out that the electrification of seeds is by no means intended as a substitute for manure, but affords a means of

doing with less, these two agents together giving a better crop, both as regards quantity and quality than when non-electrified seed is used. "Having electrified your seed," he says, "give the ordinary attention and cultivation you would do otherwise, and you will be assured of a better crop."

* * *

The subject of the treatment of crops by electricity is dealt with in a recent work on "Agricultural Research and the Farmer," by Mr. V. E. Wilkins, which gives an account of the work done in this direction at various experimental centres in the United Kingdom. The results show that with spring-sown cereals an increase of 22 per cent. in the yield has been attained and 20 per cent. in the case of hay. The maximum current which can be used without prejudicial results is 100,000 times as great as that normally supplied by the atmosphere.

* * *

For some years past the question of the cultivation of tobacco in Mauritius has engaged the attention of the agricultural authorities in that island. The extremely comprehensive *Mauritius Almanack* for 1922 says that complete success has attended the experiments in this direction, and that the necessary licences are now being issued to small growers. "Prospects for the development of this not unimportant minor industry," says the *Almanack*, "appear to be decidedly hopeful." The tobacco experimented with was the type grown in Réunion.

* * *

Mr. D. C. Willis, in one of the Agricultural Extension Notes, published by the Porto Rico Experimental Station, says, that in the cultivation of pineapples it has been found that nitrate of soda is of little value as a fertiliser, while the results with sulphate of ammonia have been exceptionally good. Mr. Willis considers that the difference in the effect of the two forms of nitrogen on the crops probably lies in the different effect they have on the reaction of the soil, the nitrate of soda being injurious on account of its ultimate alkaline effect, while sulphate of ammonia is beneficial because it leads to acidity. Acidity of soil appears to be necessary to pineapples.

* * *

Mr. F. Scott-Fowwater, M.Sc., A.I.C., in an article in *The Fertiliser and Feeding-Staffs Journal*, points out that the most important fact yet discovered with regard to vitamins is that they appear to be absolutely necessary to maintain animal nutrition. An animal fed on a diet which contains no vitamins, however complete the diet may be in the usual food requirements, such as proteins, fats and carbohydrates, soon ceases to gain weight, its nutrition becomes faulty, it develops certain diseases and ultimately dies, unless the necessary vitamins are restored in its diet. Any animal, including man, however, which gets a reasonable amount of fresh food in its diet, will generally obtain thereby sufficient vitamins for satisfactory nutrition, without having to be supplied with specially manufactured vitamin-containing food.

SOME COMPANY NOTES.

Trinidad Central Oilfields.

The accounts for 1921 show a credit balance of £20,441. The Directors regret they are unable to recommend a dividend. The production for the year was 129,724 barrels, against 98,000 for 1920. During the year costs of production increased by some 30 per cent., and prices realisable for all petroleum products fell seriously. The conditions reported in circular to shareholders in May last were largely responsible for this increased cost and disappointing amount of production.*

Pursuant to the agreement made with original concessionaires of the Ortoire lands, the company was under obligation in event of its taking up a lease of such lands to pay £12 in cash per acre of land taken up under the lease. The area under exploration and prospecting licences was 42,918 acres. It was of paramount importance that the company should be placed in a position to select areas out of their lands to incorporate in the lease, and negotiations were entered upon with all parties having rights under the agreement with a view to its amendment. The result has been satisfactory, and the rights of all parties over all lands in question, with the exception of 5,000 acres of very questionable value, have been acquired for £42,988.

The geologists who have been in charge of exploration work on these lands have now acquired sufficient information to advise inclusion of the 37,276 acres in the company's application for a comprehensive lease. While in Trinidad, the chairman put in the necessary application to cover not only those lands included in the Ortoire areas, but in other areas over which the company holds prospecting rights. The surveys required by the Trinidad Government are now being made.

The *Financial News* of September 4th gave the following comparative table showing the company's results for the past three years:—

	1921.	1920.	1919.
Production (barrels)	129,724	98,000	169,867
Trading profit ...	*£1,463	£65,976	£59,639
Other revenue ...	45,129	20,231	2,193
Total revenue ...	£43,666	£86,207	£61,832
To depreciation ...	23,428	16,500	10,788
Fees and expenses ...	12,657	13,621	8,081
Profit... ..	£7,581	£56,086	£43,013
Brought in	12,860	17,821	9,808
Available	£20,441	£73,907	£52,821
New issue expenses	—	3,463	—
Dividend	—	57,584	35,000
Rate per cent. ...	—	10%	10%
Carry forward ...	£20,441	£12,860	£17,821
	* Loss.		

West India and Panama Telegraph Co. Ltd.

Speaking at the eighty-fifth ordinary general meeting, on August 30th, the chairman, Sir Alexander King, said that in the present distressful position of the company he would probably not be required to enter into a detailed examination of the accounts, but that it was only fair to draw attention to the fact that with two exceptions the items of expenditure showed a reduction on the figures for 1920. The cost of maintenance of cables, including expenses of the *Henry Holmes*, was again high—£53,700, as against £82,200 in 1920.

It was not, however, the working expenses of the Company (which, he contended, were moderate) that had led to the present position, but the falling off of traffic receipts. Looking back, but omitting 1920, when so many of their lines were interrupted, he found that both in 1918 and in 1919 the traffic receipts totalled more than £92,000, whereas last year they were £70,000 only. It was that additional £22,000

which was now wanted to enable the Company to continue working.

Continuing, he said that when they met in June last year he said that traffic receipts for 1921 up to that time were fairly good; but in the later months of the year they showed a sad falling off. With regard to the present year, he regretted he could not repeat what he said last year owing to the deplorable state of trade in the region they served. In fact, traffic receipts so far this year were very disappointing. It was no consolation to know that they were not alone in this respect, as analysis of the traffics of other Telegraph Companies deriving income from West Indian business showed a considerable decrease in 1921 as compared with 1920.

Since the end of June this year expenses were in excess of income, and they would have been so prior to the end of June had it not been that they had been able to let out their repairing ship in the early part of the year. Several of their stations were, and always had been, worked at a loss, but, under the terms of their contract with the Government, these stations could not be closed. He was unable to offer any hope that expenses would be materially reduced and, unless there was a great and speedy revival of trade in the West Indies, he could not disguise the fact, nor did he wish to do so, that, without assistance of one kind or another, the day was coming when they would be unable to keep their cables in repair, and this, of course, meant that their stations in the West Indies would be cut off from telegraphic communication.

In reply to a question asking whether, when the *Henry Holmes* was put into Trinidad for repairs, a contract was made on the usual business lines as to cost and time limit, the chairman answered that the usual business lines were followed. It was impossible to get a contract for a Lloyd's survey of the ship, because it was not known what repairs were necessary until the ship was opened up, and in the case of the *Henry Holmes* this difficulty was very much intensified by the fact that the survey ought to have been made, well, three years before, in 1915, he supposed. But during the war the Government would not allow them to send their ship for this survey for fear of telegraphic communication being cut off, and, of course, every month, every year certainly, added to the amount of repairs that were necessary. Until the ship was opened up by the dock people it was impossible for anyone to say what repairs were necessary.

In reply to a further question, the chairman said that, in his opinion, their troubles were entirely due to the long detention of their cable ship at Trinidad. As previously admitted, it would have been better to have sent the ship elsewhere, but the directors were influenced by patriotic feelings. They were advised that the Government dock in the West Indies would take longer than, say, some of the American docks, and imagined that that might, perhaps, be a month or two longer. If they had known that it meant 20 months, their ship would never have gone to Trinidad. They were aware of the facts in Trinidad, but one reason for the long time taken was the want of supervision. The war had attracted all, or many, of the capable people from the Islands. A West Indian Contingent came over, and foremen could not be obtained in sufficient numbers to look after the workmen. They had worried the Government during the last 12 months with many letters, and had been to see them, but, with the present economy craze on, the Government said that they could not find any money.

Asked if the Government had been told that telegraphic communication might have to cease, the chairman replied that they had been told that in two or three letters. A shareholder suggested that in any further communications it should be stated that the company would have to close down, and that perhaps that would make the Government act. The chairman, in reply, asked how they could close down at once.

They had a staff there and a ship. They were getting a

* See The West India Committee Circular, No. 616, p. 226.

little money at present with which to pay the wages of the staff and of the men on the ship. If they closed down they would get nothing. They would have to give their people reasonable notice. It would be possible to say to the Government that this day three months they would stop working, but then they would lose their subsidy, which was £16,000 a year. They would lose that and have no money with which to pay the staff. They must give reasonable notice before closing down. Continuing, the chairman said they were receiving the same amount of subsidy as before, and could not increase their charges. They had pointed that out to the Government. Here at home the British Government had increased their telegraph charges by 100 per cent. Instead of 6d., it now costs 1s. to send a message. They had pointed out to them that if they could make such an increase they would be flourishing, but they had failed to move them so far.

A shareholder remarked that it was rather extraordinary that the Government did not take some notice of this point because a cable company, as they all knew, was in a different position from a trading company. The public were benefited. It was a case of *pro bono publico*, and the Government ought to recognise that.

The chairman replied that it did recognise it to the extent that when they reduced the rates they gave them this subsidy, and the point was that they should not increase the rates so long as they paid the subsidy, but that was before the war. They had not taken into consideration that what was worth £1 before the war was now worth only 15s., and some time ago was worth only 12/- or 13/-. As another gentleman had pointed out, in equity they should increase the subsidy correspondingly. It was not for want of putting those facts before the Government that they were in this position. They had put them before the Government to the extreme.

Asked if there was a chance of any other company buying them up, the chairman replied that they had considered that also, and had approached another company. The difficulty was that they did not stand alone. Their communications in the West Indies passed through two other companies who were connected with them. They had not a direct line in the West Indies. They were under strict obligations to one of those companies, so that anyone who bought them up would probably have to take over the obligations, or at any rate pay for the obligations which bound them. If they did not pay for them, this company would have to pay compensation, and probably pay away every halfpenny it received in respect of purchase money.

The resolution that the report and accounts for 1921 be adopted was unanimously agreed.

After passing a vote of thanks to the chairman and directors, and to the staff for their work during the past year, the chairman was asked if he could tell them anything of the nature of the proposal which had been submitted to the Government—whether it would help them at all.

He replied that he could not give particulars. He did not think it would be fair to the Government, for it was not only our Government which was involved. Several Governments in the West Indies were involved, as well as the Canadian Government. But he could say this—If the proposal was approved the Company would be, he would not say rich, but in a position to pay its way, which at present, unfortunately, was not the case. The proceedings then terminated.

HON. R. E. BRASSINGTON has been re-elected Chairman of the British Guiana Sugar Planters' Association for the ensuing year, the following being elected as members of the Council: Messrs. G. E. Anderson, A. E. Bratt, J. B. Cassels, A. E. Craig, H. Deverill, C. Farrar, W. S. Jones, C. H. Nicolson, R. G. Seaford, R. Strang, and E. Walcott.

JAMAICA GOVERNORS.

BY FRANK CUNDALL, F.S.A.

XI.—Sir Francis Watson, President.

(Continued from page 405 and concluded.)

In July the Council, hearing that there were fourteen ships, supposed to be French, to windward, delayed the sailing of the *Drake* (Captain Spragg), the only vessel available for local defence, as the *Assistance* frigate was sailing for England; and the *Callipatch* sloop was commissioned with a crew of fifty men, and two fire ships were ordered to be prepared, the pink *Speedwelle* being hired for £320, and the barque *Swan* for £168. Fear of invasion continuing, steps were taken to put the local forces in as good order as possible, some difficulty being experienced by one or two officers seeking promotion to the command of regiments. Steps were also taken to build additional fortifications, especially at Port Royal.

At this time the Treasury was "bare of money," and the Council had to borrow from Smyth Kelly, the Provost Marshal.

In September, Christopher Codrington, wishing to rid himself and the Leeward Islands of some troublesome Irishmen, "upon pretence that there was danger of them joining with the enemy," sent them to Jamaica in the ship *Anne* (Captain John Leach), but the Council promptly forbade their landing and had them detained at Port Royal. William Drax, member of Assembly for St. Ann, having said that William III was a usurper, an order for his arrest was issued. He fled to St. Jago de Cuba, and Watson sent a letter to the Governor there to demand that he should be delivered up. In October, the embargo on shipping was removed, provided that vessels sailed in fleets; but it was re-imposed in December. In this month the Council refused a *Habeas Corpus* for Robert Elletson on the person of the late Chief Justice who had been imprisoned at the instance of the Attorney-General, but the decision was made by a majority of three (Bourden, Fuller and White) to two (Watson and Ballard). Watson apparently did not get on well with some of his Council, which was split up into two factions. He, having served under Monck, was not unnaturally a strong supporter of his son, the second Duke of Albemarle. Elletson at times advised him ill.

The outbreak of war was announced at the Council Meeting on January 13th, 1689-90, and on the 10th of February it was ordered that the Order in Council appointing the President to be Commander-in-Chief upon any alarm was revoked, the President and Ballard dissenting. Again, four days later, the President and Ballard were in the minority of two, when Francis Hickman was suspended from his office as Clerk of the Council.

In December, some of the Monmouth rebels attempted to regain their freedom, but the Council decided that they must serve their ten years, and their arrest was ordered.

In December, Laurance Graff, the Dutch pirate, having taken a New England vessel bound from Jamaica, and having formed a fleet of pirates, had

landed on Jamaica and taken off slaves. Several merchants of Port Royal and owners of sloops offered to go against Graff at their own expense. This was agreed, and Captain Spragg, Commander of the *Drake*, was ordered to go in command. A proclamation was issued "for Encouraging the Search and Discovery of Derelict Treasure in the bottome of the Seas not yet Discovered or Wrought" by which those who exploited such wrecks were permitted to bring the proceeds to the island on payment of the royal tenths only.

In January, 1689, it was known that Lord Inchiquin was coming as Governor and the Receiver General was instructed to provide a house at Port Royal "for three months certain," for the reception of him and his family, and to see that the King's houses there and at St. Jago de la Vega were put into good repair. A medal was presented by the President and Council to Richard Chitty for his "good service and great care and industry about the new forts at Port Royal bee haveing received noe other pay or reward for same." The medal cost £54. On the 10th of February, 1689, and upon debate, the Council resolved in order to remove doubt, "that ye Administracon of the Governement of this Island is at present in the President and Council according to ye words of ye Commission and the King's Commands."

When at this time Watson decided to send a letter of remonstrance to the Vice-King of Mexico protesting against the insults to which captains of ships from Jamaica had been subjected by the Governor of Vera Cruz, the Council decided that the letter should go "in Sir Francis Watson's name only."

In April, 1690, when all eight members were present, the Council divided up £2,000, one year's salary of the governor since the death of Albemarle, amongst themselves, and gave Watson only the same as the rest, £250; Watson and Ballard as usual dissenting.

"May it please yr Lordships upon informacon to us in Council yt severall psons in the island apprehended the Governement still to have been in Sir Francis Watson as President and Governr, wee resolved that ye administracon of this island is for the present in the President and Council according to ye words of the Commission and the Kings Comand. And on the Tenth of February Last we ordered the same resolucon to be published & read at the head of every Troop & Company in Island with his Majties Letter relating thereunto."

In the margin of the minutes is written: "Sir Francis Watson and Coll: Ballard entred their dissents to this clause." In the instructions to Lord Inchiquin it was ordered that Watson should be paid at the rate of £500 per annum from Albemarle's death, "and his conduct to be reported on for decision whether £500 more shall be paid to him." Inchiquin reported that he did not think that either Watson or Ballard was fit to be a member of the Council. Sir Francis was £80,000 in debt, and his estate most scandalously mortgaged two or three times over, probably by reason of the venture in which Betterton lost a large amount of money; and on the 30th of November, 1690, the King signed a warrant for the removal of Watson and Ballard from the Council. Watson died in

1691. In February, 1692-3, the laws made under his presidency were ordered to be cancelled by the King, and in October they were in Jamaica, "unfixed from the broad-seal," and cancelled. An Act was passed restoring Sir Francis Watson's estate in Major Henry Lowe. Roby tells us he was buried in the chancel of the church at Spanish-Town in 1691, and his widow in 1698.

His will, dated 7th August, 1684, is recorded at Spanish-Town. He describes himself as of the parish of St. Martin in the Fields. He appointed as trustees his "loving friend Thomas Betterton of London, gent." and his nephew, Francis Watson, son of his brother Edward Watson. He bequeathed to them his "negroes, negrines, villaines and slaves." He admitted his indebtedness of £6,000 to Betterton. He left legacies to Elizabeth, the daughter of Elizabeth Maine, to his nephew Francis Vincent, to his niece Elizabeth Vincent, to Francis the son of Elizabeth Maine, and £100 to his nephew Francis Watson who is now in Jamaica, "for his trouble about this Will." By a codicil, dated 19th September, 1690, he left his wife Clarendon Park, in the parish of Clarendon, which he had purchased of Sir Thomas Lynch in 1677; also his pen in Bowers Savanna, in St. Dorothy and Clarendon; also all his houses in the town of St. Jago de la Vega, and his plantation and pen at a place called Hogg Hole Path in St. Katherine's. There is no mention of the daughter whom Betterton is said to have adopted. If she was fifteen at her father's death, she was born in about 1676, before his marriage in 1678; in which case she may have been Elizabeth, the daughter of Elizabeth Maine. We learn from the "Calendar of State Papers," that in 1675 he was indebted to his brother-in-law, Matthew Hyde.

TO COMBAT COPRA PESTS. Mr. Rutgers' Simple Remedy.

The Bureau of Entomology consulted recently regarding a pest which was attacking copra in the West Indies referred the enquirer to a paper by Mr. A. A. L. Rutgers in "Verlag van den Directeur van het Algemeen Proefstation der A.V.R.C.S., 1 Juli, 1917—30 Juni, 1918." Mr. Rutgers dealt with a case where copra was infested by a Tineid moth, by a Nitidulid beetle (*Carpophilus sp.*), a Cuckoo (*Laemophloeus sp.*), and the Clerid, *Necrobia rufipes*, De G. stating, "It is advisable to keep copra from old nuts separate from that obtained from young ones, as the latter is more severely attacked. Sulphur fumigation was tried, but the results were not lastingly successful, and the method at present employed is to keep the copra constantly turned over."

In 1920 the chocolate and cacao industry of Canada was carried on in nine plants, capitalised at \$5,553,571, with 1,400 employees, receiving \$1,245,693 in wages, and accounting for a production of \$8,998,277. The kinds of products comprised chocolate, cocoa, cocoa butter, confectionery and spices, of which chocolate accounted for more than half the value of production. Quebec and Ontario are the centres of the trade, there being five plants in the former province and three in the latter, with one plant in Nova Scotia.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbados—Mr. Wood's Report Approved.

The *Agricultural Reporter* states that the weather during the fortnight ended August 19th had been moderate. Some refreshing showers fell on the roth in some parishes, but this was followed by intense heat and bright days. A few estates in St. Andrew and St. Joseph were still reaping.—The headquarters of the Imperial Department of Agriculture have now been transferred to Trinidad consequent upon the amalgamation of the Department with the West Indian Agricultural College, and Sir Francis Watts left for Port of Spain on the 11th. The remainder of the staff were to follow very shortly.—His many friends in the island have learnt with regret of the death of Mr. G. Bruce Austin, in Trinidad.—The death of Mr. G. S. Pomeroy, the popular proprietor of the Hotel Pomeroy, better known as the Marine Hotel, is also the subject of general regret. The obituary also includes Mr. J. Godfrey Archer, of Messrs. C. F. Harrison & Co.—The Chamber of Commerce had their monthly meeting on the 3rd inst., when they passed a resolution expressing appreciation of Mr. Wood's Report and supporting his recommendations in respect of preference on sugar and telegraphic and steamship communication, adding, however, that the subject of communication with the United Kingdom via Canada would require further and fuller consideration.

British Guiana—Improved Sugar Prospects.

Mr. V. P. Fitzpatrick wrote on August 18th that the weather had been entirely favourable for the last three weeks, during which the colony experienced hot sunshine and several good showers, while, during the last week-end there was a very heavy fall amounting to 7 inches in 36 hours. The drainage pumps have now taken all the water off and damage to cultivation was unlikely.—The abandoned front lands of the estates and villages on the East Coast were, however, flooded, and owing to there being no longer any effective natural drainage, the condition of the villages was unenviable.—Thanks to the good weather that has been experienced during the last few months, crop prospects are excellent and good returns are anticipated when the autumn grinding begins. With sugar now at 4 cents practically all the estates in the Colony should show a small profit on the year's working.—With the improved prospects of the sugar industry it is expected that the Government will collect at the end of the year the 1920 Profits Tax and the 1922 Sea Defence Assessments, the collection of which was deferred owing to the depression in the sugar market.—Owing to a very large number of men having gone off to the diamond fields, a distinct shortage of transient labourers (labourers who do not live on the estate but come from the villages—usually blacks) is being experienced, and a shortage of cane-cutters assuming serious proportions is reported. Unless something is done in the very near future as regards the importation of labour for work on the sugar estates, an adequate labour supply for 1924 and 1925 seems very doubtful. The industries of the interior are attracting a considerable number of people from the coast while city improvements and the prospective drainage schemes and other public works are very likely to affect the estates labour supply considerably.

Viscount Dunsford's Group applied to the Government for a concession of some 3,000 square miles of unoccupied diamondiferous land in the diamond mining district; but nothing has yet become public as regards the manner in which they propose to exploit this extensive area, and what guarantees are offered to the Government. However, this application has caused quite a sensation amongst the people interested in the diamond industry, and the daily papers contain several letters protesting against the Government granting such a concession.

There seems every prospect of the Demerara Bauxite Company commencing its operations at McKenzie City early next year. A Mr. Barnes has arrived from the States to take up the position, it is understood, of technical general manager, and Mr. Carr, the vice-chairman, is expected to return from England in the near future.—A Committee has been appointed by the Government to enquire into the question of the East Coast Drainage, and several schemes are under consideration. The idea is, it is believed, to dig a very wide and deep trench from Georgetown to Mahana on the land side of the Sea Wall to act as a reservoir for the surplus water draining naturally off estates. On certain points of this trench powerful drainage pumps are to be erected to pump the water over the Sea Wall at any stage of the tide and thus maintain a sufficiently low level of water in the reservoir to permit natural drainage from the estates. The matter, of course, at the present moment is merely in the stage of discussion and the public has yet to learn in what manner it is proposed to raise the money necessary to cut the reservoir canal and erect the necessary drainage and pump stations.—A group of gentlemen interested in horse racing has formed a new Turf Club. It was first proposed to lay out a race course and erect stands at Plantation "Houston" on the East Bank, but now it is possible that Mr. Nelson Cannon may sell Bel Air Park Race Course.

Withertip in Dominica.

Mr. S. F. Ashby, mycologist of the Imperial Department of Agriculture, recommends rigid disinfection of the clothing and cutlasses of labourers with the object of checking the spreading of withertip disease. He suggests that clothes should be disinfected by boiling and the cutlass blades by fire and the handles by 5 per cent. solution of Jeyes.—The Rev. Father M. Hermans was the recipient of an address on July 18th prior to his departure for a holiday in Europe. The presentation was made by Messrs. A. R. C. Lockhart, C. E. A. Rawle, E. E. Giraud, J. F. H. Giraud, P. I. Boyd, L. Dupigny, T. Cools-Lartigue, J. A. Pitard and Dr. Thaly.—The Governor is expected to visit Dominica in November.

Jamaica—Legislators Study Panama.

A delegation of the Legislative Council has been visiting Panama on behalf of the Jamaica Planters' Association to investigate the conditions of life on the Isthmus, and, at the request of the Government, to study sanitary methods with a view to effecting improvements in Jamaica.—A Society to combat praedial larceny is establishing branches in different parts of the Island with a view of suppressing the theft of growing crops which is still very prevalent. In support of this movement the Rev. T. W. Coore and Mr. Manly Lopez have been touring Clarendon. According to the Direct West India Cable Company the total rainfall in Kingston during July was so far below the average that the banana crop will be re-

duced to about one-tenth of its estimated proportions.

The water supply in the city of Kingston has been kept going by continuous pumping from the Ferry River Station, but the supply in the suburbs of Kingston and Lower St. Andrew has been confined to nine hours out of twenty-four. In addition, the water in the Rio Cobre above Bog Walk has fallen so low that the West India Electric Company have been unable to maintain their supply of electric power, in spite of the steam auxiliary station in Kingston being used to the limit of its capacity. The tram service during July was only intermittent, the cars when running at all only being allowed to proceed at half speed, and each car is, naturally, mobbed by undesirables, with the result that it is literally impossible for respectable citizens to use the service at all. The electric light supply has been equally deficient, the pressure falling from the normal 104 volts to between 70 and 80 volts and only intermittent at that.

Mr. R. W. Bryant, O.B.E., has been re-elected Mayor of Kingston, and Dr. Penso, Vice-Chairman of the City Council. Mr. C. A. Rickman, Income Tax Expert, returned from Barbados, and resumed his duties. Mr. Chas. Veitch of the United Fruit Company has arrived from Costa Rica and assumed the duties of Assistant Superintendent of Farms of the Local Division. Lieut. J. H. Owen, D.S.C., Harbour Master and Naval Agent, has gone to England on leave of absence. Whilst he is away Mr. J. W. Gaynor is acting as Harbour Master and Mr. F. A. Whitaker as Naval Agent. Captain Lindsay, of Messrs. Lindsay, Swan Hunter, Ltd., has left for New York accompanied by Mrs. Lindsay. Col. Green of the East Lancashire Regiment has returned from Bermuda. Mr. T. G. S. Hooke, Manager of the Myrtle Bank Hotel, and Dr. L. W. McClean of the United Fruit Co.'s Medical Department, were amongst those who left the Island on holiday this month. Hon. F. C. Wells-Durrant, Attorney-General and Chairman of the Trade Development Board, has gone to the United States in connection with the proposed publicity campaign to attract visitors to the Island. Capt. A. M. Furber and Capt. J. C. Buchanan have been appointed J.P.s.

Calf Diphtheria has broken out in certain of the Western Parishes. The disease has been made notifiable under the Contagious Disease Animal Law of 1909. The mortality is high, and strenuous efforts are being made to cope with the outbreak and prevent it spreading to the other parishes.

St. Lucia's Gratitude.

It is proposed that the decision to introduce the elective system in the Legislative Council of St. Lucia shall be marked by the establishment of two or three scholarships at a local college. The scheme has been discussed at a public meeting held at Castries, at which a resolution was passed urging that the scholarships should be in the name of the people of St. Lucia, and that to commemorate in advance the enfranchisement of the people, not only as the result of a well-conducted campaign for representative government but also as a result of the recent tour of investigation by the Hon. E. F. L. Wood, M.P., voluntary subscriptions be obtained annually from every district in the island, to be administered by trustees, for the education of two or three students at St. Mary's College for a period of five years.

Elected Representatives for St. Vincent.

The local *Times* voices the satisfaction with which the people have received the news that Mr. Wood had

recommended that they should be allowed to elect two or three members of the Legislative Council. Flags were hoisted and the announcement, which had reached the Islands from Mr. Marrayshow in Grenada was greeted with jubilation.

Trinidad Agricultural Credit Banks.

The Governor, according to the *Trinidad Guardian*, paid his first visit to Siparia on August 18th and received a hearty welcome from the inhabitants, who presented to him an Address in which they urged the need of adequate supplies of uncontaminated water and the provision of a market place. At the meeting of the Agricultural Bank Committee held on August 16th the following Resolution was moved by the Hon. A. H. Cipriani; seconded by the Hon. E. M. Lazare, and carried nem. con.:—

"That the Committee consider that funds for the Government Agricultural Bank should be obtained by the issue of Government debenture bonds; and that the Bank be given power:—

(1) To make loans on first mortgage on agricultural lands having crops of a permanent character, all such loans being made repayable by equal annual or semi-annual instalments over a period of years; and

(2) To make advances against crops for the purpose of maintenance and cultivation of estates."

A party of British Guiana teachers have been visiting the Island. They were welcomed by the Director of Education, who urged that greater efforts should be made to get the people in the various Colonies to know more about each other.—Major G. Bruce Austin, the popular Agent of the Standard Life Assurance Co. in Trinidad, died on August 9th. Possessed of a kindly and engaging personality he will be very greatly missed.

Tobago's Defence Force.

Mr. Partridge, Editor of the *Trinidad Guardian*, has been visiting the island. According to Mr. Robert S. Reid, he was able to participate in the "August" celebrations, which are still a feature of life in Tobago.—The community mourns the death of Mrs. T. Elton Miller, which occurred on July 29th, after a few days illness. A greatly respected lady, she was the wife of the owner of "Friendship" coconut estate in the Leeward district.—The rainfall for July was just over 6 in. in the windward, and only a little over half of that in the leeward district, and August opened disappointingly as far as moisture was concerned. Prices of cacao were 12.50 dols. to 13 dols. per fanega, which about paid for production expenses.—Cocoanuts are practically unsaleable, but copra at 4.20 dollars per 100 lbs. makes ends meet.—Planters are wondering where the old time demand has disappeared to. If the U.S.A. has gone dry on coconuts as well as grog, coconut growers outside the Philippines and other tropical U.S. territory will be in a bad way. No doubt the protective duty has checked British imports for the time being, and tariff makers in the old country would be well to bear this in mind.—27 men have been enrolled as a defence force under Captain Short (Richmond) with Lieutenants for the Leeward, Middle and Windward districts.

The address of The West India Committee on and after September 29th next will be 14, Trinity Square, London, E.C. The telephone numbers will be "2200 and 2201 Minorics."

WEST INDIAN LIME INDUSTRY.

The following letter has been received from the Secretary of State for the Colonies in reply to The West India Committee's representations in their letter, dated July 27th, which was published in THE WEST INDIA COMMITTEE CIRCULAR of August 17th :

29th August, 1922.

Sir,—I am directed by Mr. Secretary Churchill to acknowledge the receipt of your letter of the 27th July regarding the lime industry of Dominica, and, with reference to paragraph 3, to state that he is glad to learn that in the opinion of the meeting of members of The West India Committee held on the 5th July, the difficulties of packing and transporting the finished citric acid crystals are not so serious as would appear from the statement made at page 51 of Mr. Wood's Report. It is noted, moreover, that the statement made in the Report (page 50) as to the use of green-limes in the manufacture of lime-juice does not apply in the case of the Montserrat Co., Ltd., of Birmingham.

2. As regards the bringing of citrate of lime and citric acid within the provisions of the Safeguarding of Industries Act, I am to state that the Board of Trade, who have been consulted in the matter, report that the item citric acid has been deleted from the list of dutiable articles by order of the Referee appointed under Section 1 (5) of Part I. of the Act, and consequently the Board have no power to re-insert this item. The Board of Trade further report that as citrate of lime of the quality ordinarily used as a raw material for the manufacture of citric acid is not comprised within the terms of any of the general headings of the schedule of the Act, the Board have no power to include it in the list of dutiable articles.

3. The Ministry of Health are being consulted as to the possibility of amending the Food and Drugs Act with a view to protecting Colonial producers of lime-juice from competition with manufacturers of drinks made from synthetic chemicals. A further letter will be addressed to you on this point in due course.

4. As regards the proposal for the restoration of the coastal steamer service round the island, I am to state that it is feared that the financial position of Dominica at present precludes expenditure on a project of this magnitude.

I am, Sir, etc.,

G. GRINDLE.

The Secretary,

The West India Committee.

WANTS.

A COFFEE OFFICER is required for the Uganda Government Service, to be responsible under the Director of Agriculture for promoting the extension and improvement of coffee production in the Protectorate. Sound knowledge of the cultivation and treatment of the coffee plant and of the preparation of coffee for the market essential. Costa Rican, Jamaican, or Indian experience preferred. Salary £500 per annum, with free quarters, or an allowance in lieu thereof, and free first-class passages. Temporary engagement for one tour of from 20 to 30 months' residence in the first instance. Leave according to East African Regulations. Non-pensionable. Applicants should apply to the Assistant Private Secretary (Appointments), Colonial Office, Downing Street, S.W.1.

Home offered to children of English parents; every care; reasonable terms; first-class educational centre. References given and required.—Christchurch Vicarage, Malvern, Rev. ROBERT BREN.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

English or Foreign.

SIR,—In the window of a multiple grocer's shop at the sea-side, recently, I noticed the announcement, "We sell no foreign sugar. We only sell —'s English refined sugar." Now the name of the refiner was that of a firm which must necessarily handle foreign sugar in view of its immense output. Is, then, this advertisement legitimate?

Yours truly,

ANN.

[Our reply to "Ann" is, Certainly not. This subject is dealt with in a leading article in the present issue.—Ed.]

Roraima and Religion.

SIR,—It may be of interest to your readers of Mr. Quelch's account of the religious observances and ritual found among the Indians at the foot of Roraima that one writer on the subject, I think Sir Everard Im Thurn, speaks of having found installed over the altar of the church erected by them a portrait of the late Rt. Hon. W. E. Gladstone.

Yours, etc.,

ECCLESIASTICUS.

The Late Mr. E. Goulburn Sinckler.

SIR,—Those who knew him will deeply regret the death of Mr. E. Goulburn Sinckler, of Barbados. Mr. Sinckler was of a retiring disposition and had few friends, nor wanted many. He chose them for some bent akin to his own, which was towards the records and memorials of the past, and particularly the past of Barbados. Mr. N. Darnell Davis—whose death, in common with all who knew how much rare and laboriously acquired information about the infant history of the British West Indies would be buried with Mr. Davis, he deeply deplored—called him the "Monkbarns of Barbados"; and the name stuck. It suited him. He was the lineal descendant—transplanted to this "hott plantation"—of Sir Walter's antiquary. He was the inheritor of the tradition of Mr. Nathan Lucas, Judge Lucas, of Farley Hill. Beginning an official life, which just fell short of fifty years, in the Colonial Secretary's office, Bridgetown, he there, through the dusty, damp-stained, sometimes blackened and vermin-damaged documents that lay in heaps or higgledy-piggledy on the floor, was brought into touch with the actual records that linked far Barbados with the 17th century, with Marston Moor and the fatal field of Naseby, with Oliver, Protector, with the Restoration, and as regards the northern plantations for which so often Barbados was the "jumping-off ground"—with New England and Virginia. The neighbouring islands—St. Vincent, Grenada, etc.—were then in deep wood, and were the homes of the Carib and Arawak. Small wonder that seeing and handling such papers the young man's imagination was fired, and that an ardour for historic research was kindled that never to the end of this life went out!

Mr. Sinckler did not publish much, unfortunately. He was of the type that digs and digs, and tends to become absorbed in digging. Moreover, he was always a busy man, and never allowed his hobby to

trespass on his duties as a magistrate, etc. He inspired much that others published. Extracts from old documents, in his beautifully neat handwriting, and preserving to a letter all their "original ruggedness of spelling," found their way to correspondents in England and North America—and the north coast of South America. Perhaps he was best known, generally, as the compiler of the "Barbados Handbook," published in 1912 and revised and enlarged in 1913 and 1914. The historical notes which open the Handbooks are genuine Monkbarns in their brevity and trustworthiness. In 1918, he contributed a paper to "Timehri," entitled "The Indians of Barbados." He believed that Barbados at one time was inhabited by Indians, probably bearded Indians, hence the name. Like Froude, but less positively, he disbelieved in a derivation from bearded fig-trees. In 1909, a Committee was appointed to enquire into the historic sites, old forts and houses, burial-grounds and tombs of Barbados, and to report what measures were necessary to preserve them from neglect and decay. Naturally, Mr. Sinckler was a member of the Committee; inevitably, he was its honorary secretary. No work could have been more thoroughly congenial to him. No historic nook of the island but was known to the antiquary. (The figure standing in a Carib tomb, St. Michael's parish, in a photograph in the Handbook, is Monkbarns—characteristically, with his back turned). Much of the information in the Committee's report must have been a part of himself for years. His hand is seen in every paragraph of the report, and in the references to authority, genealogy, etc., in the footnotes.

Apart from such work, published separately, and in more or less permanent form, most of Mr. Sinckler's writings—the fruit of quiet and (as time allowed) persistent burrowing in Council Minutes, deeds, wills and registers—lie, probably forgotten, in the dusty files of island newspapers. Sometimes the column, half-column or paragraph—warily more—is initialled "E.G.S."; sometimes the writer is sufficiently betrayed by matter and manner. Antiquaries are not prolific in Barbados. Some years ago, Monkbarns published a dozen or two of the legends of Old Barbados which he had collected, in the *Barbados Standard*. It is not to be supposed—nor is it in fact the case—that Barbados has been planted for nigh on three hundred years without strange and interesting legends having grown up around some of its old houses, mill-towers, ruins of forts, bays, caves and even giant silk-cotton trees; and Monkbarns, if anybody, was the one to draw out and welcome such legends, and to write them down for his own and his friends' gratification. The legends, as published, perhaps suffer from excessive brevity, as do most of Monkbarns' writings; it is as if the magistrate, in his minute book, wished to "boil down" the evidence. One rather wanted him to write it up! We tried to persuade Monkbarns, after a little amplifying the legends, to collect them and bring them out in a little book or pamphlet. But it was not done, and won't be done now.

Mr. Sinckler was a most interesting companion in a drive—leisurely-wise, in a buggy—about the island. He overflowed with island lore. There would be a pause now and again; a grey house among trees to be pointed out, and perhaps visited, where in the 17th (or it might be in the 18th) century, it was said, a runaway couple had been hidden from an irate pursuer, or the master of the estate had been murdered in strange circumstances, or there had been a slave revolt; or we would get out, and, leaving the horse

and buggy with a faithful old groom, we would walk through the woods and down a path to the sea-shore, and there—two old guns, half buried in the sand, still pointing seawards—we would trace the low stone walls of the gunners' quarters of Maycock's Fort. And then, returning home, and going into his study—where books on the Scottish Highlands and Highlanders foregathered with reports of criminal trials, and "Timehri," in odd numbers, with papers by his friends, hobnobbed with bound volumes of "Caribbean"—he would take out an album of newspaper cuttings and read an article he had written some years ago on that same Maycock's Fort, long ago so busy with match and musket, now so quiet down by the sea.

Mr. Sinckler was of the type of West Indian—the late Mr. N. Darnell Davis, and in a lesser degree Mr. G. H. Hawtayne, were of the class, as is Sir Charles P. Clarke, also of Barbados—who took a deep interest in the history of their native land, and found exhaustless pleasure in exploring the dim chronicles of the past. The type seems to be becoming rarer—in fact, to be going out. We will gratefully remember those pleasant walks and talks, with their flavour of old time, now that Monkbarns—antiquary and modest gentleman, real and affectionate friend—"home has gone and ta'en his wages."

Yours faithfully,

J. GRAHAM CRICKSHANK.

OUR WEST INDIAN LIBRARY.

THE PETROLEUM INDUSTRY. A BRIEF SURVEY OF THE TECHNOLOGY OF PETROLEUM. With an introductory by SIR FREDERICK W. BLACK. Edited by A. E. DUSTAN. London, The Institution of Petroleum Technologists. Pp. 346.

Under the above title, the Institution of Petroleum Technologists has published in book form a series of essays mostly based on lectures given by its members during the Petroleum Exhibition at the Crystal Palace in 1920. The essays are all by experts, and we commend this book to investors, and, above all, to speculators in the shares of oil companies. From it they may learn what a serious and busy industry is petroleum, and how very far a company whose prospects are merely based upon promising indications of oil is from the position of paying dividends to its shareholders. The fact that Trinidad can be accurately described as the "key of petroleum origin" is of academic interest and but small consolation to the man who would like a dividend. But to thoughtful people there is nothing discouraging in this work. Inevitably it shows that the oil industry requires immense patience and capital of like dimensions. The essay by Mr. Hubert May on the "Winning of Oil" is as clear and interesting an outline of a very big subject as we have yet encountered. The late Sir Beverton Redwood, to whose memory this book is dedicated, entitled his introduction "The Romance of Petroleum," and no industry more clearly earns the description "romantic." Its uncertainties, its disappointments, and its vast results when success is achieved all tend to make it the lodestone of the most energetic and the best brains of the day. It is in the form of bitumen that petroleum has been longest known to the world, and it is possible that in the form of petroleum pitches derived from asphaltic oils and used in road-making it may become most commonly known in the world of to-day. Thus it is rather surprising then that this use of a derivative of petroleum is so lightly touched on in this work.

THE WEST INDIAN PASSENGER LIST.

VISITORS FROM OVERSEAS.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Changuinola*, September 5th:—

Rev. & Mrs. T. Burchill	Mr. & Mrs. A. Fata	Mr. V. G. Lecesne
Miss P. D. Copeland	Miss F. Fata	Miss C. G. Malick
Mr. & Mrs. Cordova	Mr. N. Fata	Mr. F. N. Marines
Miss E. Curdova	Miss W. Kasan	Mr. & Mrs. E. R. Setton
Mr. J. L. Cundall	Mr. M. K. Kasan	and family
Rev. J. Curry	Mr. J. G. P. Lamont	Miss S. A. Wahlin

Home arrivals from Jamaica, in s.s. *Coronado*, Avonmouth, September 3rd:—

Mr. Muriel Ackerley	Mr. W. W. F. Gonda	Miss J. C. V. Simmonds
Mr. R. W. Aitken	Miss A. R. Grant	Mr. R. J. Stephens
Mr. V. Andrew	Mr. H. M. Gethin	Mr. H. G. Tennant
Mr. C. H. Atkinson	Capt. T. R. H. Griffiths	Mr. C. C. Todd
Mr. G. W. Bean	Major O. M. Guest	Mr. D. Var
Mr. M. A. Davis	Mr. J. H. Haigh	Mr. W. H. Ward
Mrs. F. H. Edgar	Mr. K. V. Halliday	Mr. J. A. Weston
Mrs. E. M. Edwards	Mrs. N. McCaskell	Mr. H. White
Mr. & Mrs. H. R. L. Fox	Mr. J. A. O'Malley	Miss M. H. Westley
Mr. H. Furnis	Mr. F. N. Riley	Col. J. A. C. Younger
Mr. R. A. N. Gurdoo	Mr. & Mrs. J. Simmons	Mr. W. Zeemans

Thos. & Jas. Harrison.

Sailings to West India, from London, in s.s. *Ingoma*, September 1st:—

Mr. & Miss Barker	Mr. Grant	Mr. Pilkington
Mrs. Barclay	Ms. Greenway	Miss Pollard
Miss Bowen	Mr. Greenway	Mrs. Prada
Rev. & Mrs. Bower	Miss Hazell	Mr. Reade
Mr. C. E. Brown	Mr. & Mrs. Hendriks	Mrs. S. Robertson
Mr. Chatterton	Mrs. M. H. Ingram	Mr. & Mrs. Savary
Mr. Coleby	Rev. & Mrs. Donald	Mr. Siddow
Mr. L. P. Cossovart	Mr. & Mrs. Lynch King	Mrs. Singh
Mr. & Mrs. Cowen	& family	Mrs. Swift
Mr. Daggert	Mr. Klischen	Mr. & Mrs. Stewart
Mr. & Mrs. Deane	Ms. Laing	Mr. Sykes
Dr. & Mrs. de Freitas	Col. & Mrs. Lambert	Mr. & Mrs. Thompson
& family	Mr. Lamport	Mr. & Mrs. T. Wales
Mrs. Denny	Mr. A. Low	Mr. R. J. Ward
The Misses Dew (2)	Mr. Lywood	Mr. & Mrs. Wild
Mrs. Fraser	Mr. Macdonald	rev. Womack
Rev. & Mrs. Gidding	Dr. Minett	Mr. Woodford
Mrs. Goodacre	Mrs. C. Mullin & fam.	Mr. & Mrs. H. G. Yearwood
Ms. E. J. Graham	Mr. & Mrs. Newberry	

Mr. L. G. Aiston	Mr. S. M. Jacobsen
Hon. J. P. Auld, M.I.C.E.	Mr. H. I. Jeffers
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Mr. Robert Arthur	Hon. W. G. Kay
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Mr. James Black	Mr. G. Laftite
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Mr. A. J. Brooks	Mr. L. J. Lee
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Mr. James Brown	Ms. A. Levitt
Hon. P. N. Browne, K.C.	Mr. C. Hope Levy
Mr. H. Gordon Burn	Mr. K. S. Longley
Miss H. Burton	Hon. J. Challinor Lynch
Mr. M. P. Canacho	Hon. Harcourt Malcolm, O.H.P.
Mr. R. H. Canning	Mr. Samuel Manning (K.C.)
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Mr. F. A. Corea	Mr. J. C. McLelland
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Mr. A. Cory Davies	Mr. J. Morrison
Mr. C. McM. de Roux	Hon. W. Morrison
Mr. G. P. Dewar	H.P. Lt.-Col. Sir Charles O'Brien, K.C.M.G.
Mr. P. J. Evans	
Mr. H. A. Feehan	
Mr. T. P. Evelyn	
Hon. H. Ferguson	
Dr. W. H. Fritz	
Mr. C. C. George	
Mr. P. P. C. Gill	
Mr. R. P. Gladwin	
Mr. J. Gonsalves	
Mr. W. Gordon Gordon	
Mr. Archibald Gordon	
Mr. Gordon Graham	
Mr. J. T. Greg	
Mr. P. Lechmere Guppy	
Mr. J. H. Haigh	
Mr. H. Hamel-Smith	
Mr. Alice G. Hamslyn	
Mr. V. Hanschell	
Mr. V. C. Hanschell	
Sir J. H. Harrison, C.M.G.	
Mr. O. J. Henderson	
Mr. S. M. Hobson	
Mr. F. W. Hopkins	
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Mr. W. P. Humphrey	
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Capt. Thomas H. Irving	
Mr. I. A. James	

Mr. I. A. P. O'Reilly, K.C.	
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Dr. H. Graham Pilegrim	
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Hon. E. A. Robinson	
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Dr. L. K. Sharples	
Hon. A. P. Sierlock	
Dr. E. M. Skeete	
Mr. M. Howard Smith	
Rev. W. R. Symons	
The Rt. Rev. Bishop of Trinidad	
Hon. W. A. S. Vickers	
Hon. R. A. S. Warner, K.C.	
Mr. F. Williams	
Hon. S. Wolffsohn	
Mr. W. Harold Wright	
Mr. G. A. Yearwood	

Mr. Henry H. Baird, c/o Messrs. Thos & Cameron, 19, Cheapside Street, London, E.C. 4.
Mr. John M. Fleming, The Hermitage, Hadlow, Kent.

Royal Netherlands West Indian Mail.

Home arrivals from West Indies, in s.s. *Stuyvesant*, Plymouth, September 5th:—

Mr. A. Boyce	Miss M. Harris	Mr. G. Noor
Mr. R. Branch	Mr. W. Ibbett	Mr. T. Owen
Mr. S. Cameron	Mr. & Mrs. H. Jones	Mr. S. Rosenstamch
Mr. G. Case	The Misses Kent (2)	Mr. E. Simpson
Mr. C. Conn	Mr. J. Kirkpatrick	Mr. H. Sperry
Mr. Creighton	Mrs. & the Misses	Mr. S. Taylor
Mr. M. de Cairns	Leedham	Miss C. Winter
& family	Mr. & Mrs. G. Lewis	Lt. Col. & Mrs. L. F. Wells
Mr. L. Franklin	Mr. H. Mackenzie	Mr. & Mrs. R. Young
Miss K. Gardiner	Mr. R. Milne	
Mr. A. Gordon	Mr. J. Morris	

Home arrivals from West Indies, in s.s. *Venezuela*, Plymouth, August 29th:—

Mr. A. C. Akew	Rev. & Mrs. W. M. Gregory	Mrs. & Miss Mellon
Mr. R. Archer		Mr. & Mrs. K. Meerson
Mr. J. C. Augustus	Mr. H. W. Gregorg	Mr. C. J. B.
Mr. C. W. B. Austin	Mr. J. P. Hutson	Monney Penny
Mr. E. B. Austin	Miss D. C. Hutson	Misses Monney Penny (3)
Mr. & Mrs. E. J. Baeza	Mr. & Mrs. V. C. Illing	Mr. H. A. Moonsham
Miss W. T. Barrow	Miss A. Jones	Dr. & Mrs. E. G. Pilgrim
Mr. & Mrs. F. M. Belfast	Mr. H. Jones	Miss E. Pressod
	Mr. W. G. Jordan	Mr. G. R. Reid
Ms. M. M. Bushe	Miss K. Jape	Mr. & Mrs. A. E. Riddick
Miss M. F. Brackburn	Mr. P. B. Kapur	Mr. & Mrs. A. W. Rogers
Mr. H. E. Brackshaw	Mr. W. T. King	
Mrs. A. Bunsons	Mr. G. Laftite	
Mr. T. V. Chichlow	Mr. C. W. F. Laurie	
Miss M. R. Clarke	Mr. H. Leslie	
Mr. I. A. Correa	Mr. Llerastamargo	
Mr. & Mrs. P. B. de Freitas	Mr. D. Macgillivray	
	Ms. A. C. Machado-Pedrique	
Mr. T. L. Dunbar	Misses Machado-Pedrique (2)	
Mr. A. C. Edwards	Miss J. N. Blanton	
Miss G. Ford	Mr. F. McLaughlin	
Dr. C. H. & Miss H. Fox		

WEST INDIAN SECURITIES.

		Latest prices.
4 1/2%	Antigua ...	1919-44 ... 82-84
3 1/2%	Bahamas ...	1925-42 ... 73-75
4 1/2%	British Guiana ...	1935 ... 88-90
3 1/2%	British Guiana ...	1921-45 ... 81-83
3 1/2%	British Guiana ...	1922 ... 104
4 1/2%	Grenada ...	1917-42 ... 84-86
4 1/2%	Jamaica ...	1914 ... 88-91
4 1/2%	Jamaica ...	1919-49 ... 78-80
4 1/2%	Jamaica ...	1923-44 ... 70-72
3 1/2%	St. Lucia ...	1919-44 ... 83-85
4 1/2%	Trinidad ...	1917-42 ... 84-86
3 1/2%	Trinidad ...	1922-44 ... 68-70
8%	The Colonial Bank ...	8-6 1/2
8%	Royal Mail Steam Packet Co. Ordinary ...	88-91
6%	Angustura Bitum Part. Preference ...	—
6%	New Trinidad Lake Asphalt Co. 8% Debentures ...	103-108
—	St. Madeleine Sugar ...	8-3
—	Apex (Trinidad) Oilfields, Ltd. ...	450
—	Petroleum Options, Ltd., 10% ...	111
—	Trinidad Central Oilfields ...	89-
—	Trinidad Dominion Oil, Ltd., 10% ...	7d.
—	Trinidad Leaseholds, Ltd., 12 1/2% ...	25-
—	United British Oilfields of Trinidad, Ltd. ...	10-3
—	General Petroleum of Trinidad ...	5-9
—	Napartina Oilfields of Trinidad ...	7-
—	Direct West India Cable Co. ...	—
—	W. I. and Panama Tel. Co., Ltd., Ordinary ...	1-1
—	W. I. and Panama Tel. Co., Ltd., 6% Cum. Int. Pref. ...	1-1 1/2
—	W. I. and Panama Tel. Co., Ltd., 2nd ...	1-1 1/2
1%	W. I. and Panama Tel. Co., Ltd., 8% Debentures ...	75-80

In 1921 the boll-weevil was accountable for the loss in the United States of 127,000 bales of cotton, valued at 610,000,000 dollars.

PRODUCE MARKETS SUMMARY.

Telephone—
Central 0562.
Telegrams—
"Cavib. London"



15, SEETHING LANE,
LONDON, E.C. 3.
Sept. 12th, 1922.

BANK RATE. 3 per cent. as from July 18th.

EXCHANGE. Value of the £ Sterling.

	Aug. 29th	Sept. 12th		Aug. 29th	Sept. 12th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	18 4	18 4	In Spain ...	4 2 10	4 2 11
.. France ...	2 6 3	2 8 0	.. Germany ...	382 0 0	323 0 0
.. Belgium ...	2 8 7	2 8 0	.. Austria ...	Nominal	Nominal
.. Italy ...	4 0 11	4 1 0	.. Holland ...	19 0	19 0

The intrinsic value of the gold sovereign is £1 la. 9d.

SUGAR. There has been considerable fluctuation in the New York market during the fortnight, the price at one time reaching the level of 5.24c. for Cubans, duty paid and landed, but this figure, however, was not maintained, values falling on the 8th to 4.99c., duty paid and landed, equivalent to 8.88c. c. & f., or about 8.22c. f.o.b. The market yesterday was firm at these figures. Future market quotations were: October 3.25c., December 3.84c., and March 3.15c.

During the fortnight prices in the Home Market have shown little change. Yesterday's values were:—London Granulated, 51/8; American Granulated, 49/9 spot; West Indian Crystallised, 42/- to 45/6 spot; White Mauritius, 47/- to 48/- spot; White Java, 47/- to 49/- spot. Cuban 96deg. was nominal, with Preferences quoted at 19/6. Jamaica 98deg. c.i.f. sold at the latter figure.

Terminal market values were: 96deg., nominal; White October, 20/7½; November, 20/9; December 20/11.

Mr. Himely, under date July 29th, says that a marked feature in connection with Cuban sugar was the large amount of ploughing being done as a preliminary to planting canes for the 1923-24 crop.

The West Indian sugar statistics in London on September 2nd were:—

	1922.	1921.	1920.	
Imports ...	40,098	39,646	34,751	Tons
Deliveries ...	26,908	32,710	53,662	
Stock ...	18,087	15,340	27,047	"

RUM. Owing to a complete absence of demand, the market remains dull and depressed.

The stocks in London on September 2nd were:—

	1922	1921	1920	
Jamaica ...	13,730	11,744	11,902	Pans.
Demerara ...	13,463	17,741	13,628	"
Total of all kinds	42,160	39,841	35,448	"

CACAO remains in a quiet condition. A small business in plantation Trinidad is passing at 65/- to 67/-, but there is scarcely anything doing in fine estate, which is quoted at 70/- to 73/-. Fine Grenada is also slow at 57/- to 58/-. Small sales of Jamaica fine have been made at 56/-. The weather in Trinidad has been exceedingly favourable to the coming crop, and if all goes well the first pickings may be expected about November.

The stocks in London on September 2nd were:—

	1922.	1921.	1920.	
Trinidad ...	7,895	25,300	54,209	Bags.
Grenada ...	16,080	19,862	31,189	"
Total of all kinds	114,902	168,901	303,532	"

ARROWROOT. Since the recent advance the market has been slow.

BALATA. West Indian sheet is firm but quiet, with spot quoted at 3/3, and forward at 3/0½.

BAY OIL. There is no business passing, and values are quite nominal.

COFFEE, during the fortnight has been extremely quiet, with export business quite flat. At this afternoon's auction, 275 barrels of Blue Mountain Jamaica were offered of which 154 barrels sold at:—172/- to 176/- for hold; 145/-

to 165/- for medium; 115/- to 146/- for very small to small; and 161/- to 182/6 for peaberry. The portion bought in was rather unattractive and slightly wormish.

Good to fine ordinary is quoted nominally at 65/- to 70/-.

COCONUTS. Messrs. Edgar Tripp & Co. report that the exports of coconuts from Trinidad during July were as follows:—

	Nuts.
To all countries ...	1,802,045
Shipped previously ...	8,510,774
Total from January 1st ...	10,312,819
To same date 1921 ...	11,693,826
" " 1920 ...	14,410,889
" " 1919 ...	17,285,010
" " 1918 ...	12,050,983
" " 1917 ...	8,184,522
" " 1916 ...	8,772,960
" " 1915 ...	8,391,994
" " 1914 ...	10,117,652

COPRA is an erratic market, with West Indian f.m.a. valued at 221 c.i.f., London or Continent.

COTTON. West Indian Sea Island is neglected, with the nominal values unchanged at: medium 24d., fine 30d., and extra fine 36d.

HONEY remains quiet but steady, with values unchanged. Jamaica dark liquid to good pale set is quoted at 26/- to 30/-.

LIME PRODUCTS. Lime Oil. Handpressed is unchanged, with sellers at 9/-, but no demand. Distilled remains steady, with sellers at 1/11 to 2/-. **Lime Juice.** Concentrated is quiet with sellers at £17 10s. There is no demand for Raw.

LOGWOOD. Business moves very slowly at about last quotation—£8 10s. per ton.

ORANGE OIL. Sweet continues quiet, with values unchanged. Bitter remains neglected.

RUBBER. The market is a little firmer on the fortnight, with crepe and sheet quoted at 7½d. spot.

SPICES. A small business in **Pimento** is being done on the spot at 2d. per lb. The nominal c.i.f. quotation is 18/- for September-October. **Mace** continues firm, with business passing at 1/8 to 1/10 for red to good pale, and 2/- for fine. **Nutmegs** are quiet and unchanged. Sound medium are valued at 8d., hold 9d., to 10d., and broken and wormy 4½d. to 5d. per lb. spot.

TRINIDAD OIL. Production for August: Trinidad Leaseholds, Ltd., 9,500 tons; Apex (Trinidad) Oilfields, Ltd., 11,900 tons; United British Oilfields, Ltd., 1,101 tons.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—

Barbados (Messrs. Wilkinson & Gaviller), September 12th: "Fine rains generally throughout the Island; appearance of more rain." Demerara (Messrs. Curtis, Campbell & Co.), September 9th: "Dry weather appears to have set in."

Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 la., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40).

The West India Committee Circular

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The West India Committee Rooms.

Telephone:
CENTRAL 6642.

Telegram:
CARIB, LONDON.



15, SERPENTINE LANE,
LONDON, E.C. 3.
September 28th, 1922

THE BRITISH EMPIRE EXHIBITION.

THOSE Colonies which have not as yet decided to participate in the British Empire Exhibition, to be held at Wembley in 1924, will, no doubt, be favourably influenced by the decision of the Executive Council of that undertaking, that 50 per cent. of any profits that may arise from it shall be allocated to the Dominions and Colonies participating, in proportion to the space occupied by each. That the prospect of profit is not altogether visionary may be deduced from the fact that such Exhibitions do, on occasion, show a very substantial surplus of assets over liabilities, and in this connection we may remind our readers that the Royal Commission for the Exhibition of 1851 is still in existence as an Organisation incorporated by Royal Charter, to administer a valuable estate in Kensington which was purchased with the surplus left over from the Great Exhibition, the proceeds from which are devoted to the promotion of scientific and artistic education. But the scope and importance of the 1924 Exhibition is such that it is improbable that when the opening day comes there will be many absentees. Canada's decision is not yet known, but up to the present nearly 400,000 square feet have been applied for from the Dominions, the Empire of India, and the Colonies, and it is estimated that 500,000 square feet will be ultimately required. The significance of these figures will be appreciated when it is remembered that at the great Exhibition in Paris in 1900, the

Dominions and Colonies occupied only 50,000 square feet, while at the Colonial Exhibition held at the White City eight years later, they took only 110,000 square feet. It would be difficult to express in a few words exactly wherein the value of these Exhibitions lies. It is sometimes argued that Colonies like the West Indies do not need advertisement or publicity, since they pursue the even—or perhaps sometimes an uneven—tenor of their way, their staple products being well-known all the world over. That is perfectly true; but with the narrow view we cannot agree, since advertisement is the breath of life to any business, and also to any business community. Exhibitions attract notice to the countries' products and their possibilities for the investment of capital, which no one would venture to say was not needed in the British West Indies. Such distant parts of the Empire as Fiji and the Solomon and Gilbert Islands are contributing £15,000 towards securing adequate representation, and we believe that eventually the British West Indies will do even better than that. Meanwhile, it is satisfactory to learn that a West Indian Group Committee is in course of formation, and that Mr. ROBERT RUTHERFORD, the Chairman of THE WEST INDIA COMMITTEE, has been invited by the Secretary of State for the Colonies to preside over its activities. The Group Committee will include a representative of every participating Government in the group, and will have power to co-opt additional members representing commercial and other interests connected with the group. Thus Mr. BOSWELL TUCKER will represent Bermuda, MAJOR DUNCAN FRASER British Honduras, Mr. CYRIL GURNEY Grenada, Mr. P. BARNARD St. Lucia, and we shall hope in an early issue of the CIRCULAR to publish the names of the representatives of the other West Indian Colonies, whose replies to Mr. CHURCHILL'S invitation to participate have not yet been received. That the Group Committee will have a busy time before it goes without saying, and it is equally certain that its labours, if properly supported, will be productive of good to the West Indian colonies. In conclusion, we would again emphasise the facts that the Exhibition has the full support of His Majesty's Government, and that there is no question of making a profit from it, either for individuals or groups of individuals, and that consequently any surplus which may remain over will be available for expenditure on public objects in the Dominions and Colonies participating.

SUGAR CONSUMPTION INCREASING.

THE Board of Trade returns for August, which are dealt with in so far as they concern the principal exports of West Indian agricultural produce in the Produce Market Summary elsewhere

in our current issue, present several features of special interest in connection with sugar. The chief of these is the steady increase which is shown in the consumption in the United Kingdom. During the first eight months of 1920 only 808,881 tons of sugar were taken out of bond for home consumption. In the corresponding period of 1921 the total reached 925,958 tons, an increase of 117,127 tons, while during January-August of the present year the consumption has totalled 1,077,075 tons, an increase of 151,117 tons on the 1921 figures and of 268,244 tons on those of 1920. The increment, it will be noticed, has been progressive, and a consumption of 1,600,000 tons for 1922, which is not far off the 1,788,000 tons of 1913, may be confidently expected. This is in itself encouraging, but there is a further matter for congratulation in the fact that this increase has taken place in spite of the heavy duty that sugar has had, and still has, to bear in the United Kingdom, and supports the view taken by THE WEST INDIA COMMITTEE CIRCULAR and expressed in our issue of January 5th last, that a reduction of the duty would have little bearing on the rate of consumption, while, on the other hand, it would have reduced the value of the preference on British sugar. With a duty of 2½d. a pound the consumption is rapidly approaching what it was when the duty was less than ½d. a pound, and there appears to be no justification whatever for any agitation for reduction based on an outcry for cheaper sugar. Another point of great interest in the returns is the increasing amount of refined sugar which is being imported from countries other than Java and the United States "not in Europe." The figures in this connection for the eight months of 1920, 1921 and 1922 respectively were 8,012 tons, 84,088 tons and 69,264 tons. Reference to the latest available Canadian Trade Returns indicates that the major part, if not all, of this came from Canada, and it is possible that Canada may be a considerable factor in the near future in compensating for the want of producing power of the home refiners, who, although turning out more sugar this year than in 1920 and 1921, are a long way from meeting public requirements. Among minor items of interest as regards sugar in the returns are the manner in which it is shown that the home refiners have held their hand as regards Cuban sugar, the imports of this sugar for August having been only 21,829 tons, as against 78,371 tons in July, with a corresponding reduction in the stocks of raw sugar held by them at the end of the month, and the lessened introduction of Mauritius sugar to the extent of 77,266 tons as compared with last year.

A TRADE COMMISSIONER SERVICE.

THE proposed appointment of a Trade Commissioner to represent the British West Indies in the United Kingdom is now being actively canvassed in those colonies. In discussing this question, it should be borne in mind that THE WEST INDIA COMMITTEE is already performing many of the duties that the Trade Commissioner would be called upon to perform, and that the most economical way of carrying out the objects now aimed at would be for the colonies concerned to

avail themselves to a greater extent of the services of this organisation. THE WEST INDIA COMMITTEE has a valuable library of books of reference relating to the West Indies, which enable the staff to reply to the many trade enquiries that they are already constantly receiving. It works in close co-operation with the various Government Departments, including the Colonial Office, the Department of Overseas Trade, and the Overseas Settlement Committee, and further, it has the "call" of information from firms possessing a complete knowledge of West Indian conditions and the requirements of West Indian trade. THE WEST INDIA COMMITTEE is therefore in a unique position to perform the functions of a trade commissioner, and thus obviate the need for setting up new and elaborate machinery for the purpose. We are glad to notice that this view was taken by Mr. A. H. CIPRIANI at a meeting of the Trinidad Chamber of Commerce on August 24th, when this subject was discussed, whilst Mr. A. V. STOLLMAYER, although urging the definite appointment of a West Indian Trade Commissioner in London, quoted with approval statements in which we previously outlined our attitude in the matter.

DRAINAGE IN BRITISH GUIANA.

THE scheme proposed by the Government for the effective draining of the East Coast of Demerara, if carried out, should not only be of great advantage to the sugar estates there, but also bring about a marked improvement in the agricultural and general conditions of the large villages which abound in the district. At present each estate and each village has its separate drainage system, more or less efficient, according to circumstances, and in the case of the sugar estates constituting a heavy item in the cost of production, pumps being necessary to free the draining trenches in the front of the parallelgrams formed by the front and back dams and the separating side dams which enclose the estates and village lands. In lieu of this it is proposed to run a deep and wide reservoir trench along the front of the district, with powerful pumps at intervals to pump the drainage water into the sea over the sea dams. The whole district would thus be in a uniform position as regards this essential detail for agriculture and sanitation, and estates relieved of a considerable burden of responsibility and expense. Another scheme which has been recently outlined by the Government for the agricultural benefit of the district is one of irrigation. At present the sugar estates are supplied with water for the maintenance of the water level of the "navigation" trenches during the crop season by the East Coast and Lamaha Conservancies. Not only is the quantity of water which these provide insufficient to permit of its being used for irrigation in addition, but its level at its highest is too low for satisfactory results, and is also subject to variation. This scheme, therefore, embraces the extension of the sources of supply, and the use of powerful pumps to maintain a high level in the reservoir canal from which the water would be drawn.

Both of these schemes would be costly, and the

points which the Government of the Colony naturally has to consider in connection with them are whether the large expenditure involved in carrying them out would be justified by the results obtained, and whether the money required for them might not be spent more profitably in other directions in the Colony. But in spite of every assertion to the contrary, the welfare of British Guiana is bound up in that of the sugar industry, and if the status of the Colony is to be maintained its sugar industry must be kept going. Money spent for the benefit of the old-established and important agricultural industry, even although it constituted a direct charge upon the Government, would be money better spent than in furthering objects more or less in embryo, and as to the results of which there is more or less uncertainty. But in this case there is another object in the schemes, viz., the bettering of the conditions of the considerable peasant population of this part of the Colony. Indeed, the carrying out of the schemes by the Government would be an act of public utility, and in no way for the sole benefit of a particular industry, and as such should have priority of any expenditure scheme for the development of the Colony's resources. No doubt, both of these schemes will be seriously considered by the new Governor of British Guiana, SIR GRAEME THOMSON.

THE WEST INDIA COMMITTEE.

The following have been admitted to membership of The West India Committee.

- | | | |
|---|---|---|
| Sir Arthur Shipley,
G.B.E., F.R.S., LL.D.,
D.Sc. (Cambridge). | { | Mr. Robert Rutherford. |
| Lady Trollope
(London). | | Mr. E. A. de Pass. |
| Mr. O. T. Henderson
(British Guiana). | { | Mr. Robert Rutherford. |
| Mr. William P. Deacon, J.P.
(St. Lucia). | | Mr. H. F. Prévité. |
| Mr. T. Boulton Singh
(Trinidad). | { | Dr. Q. B. de Freitas,
M.R.C.S., L.R.C.P. |
| Mr. J. H. Dubé
(Trinidad). | | Dr. L. R. Sharples. |
| Mrs. R. Bruce Archibald
(Tobago). | { | The Hon. G. Lafitte, J.P. |
| The Rev. J. E. Randall
(Country). | | Mr. T. B. Hull. |
| Mr. S. Alexander
(London). | { | Mr. C. P. Rojas. |
| Mr. G. I. Levesne, M.B.,
Ch.B.E.(in. (Jamaica). | | Mr. D. Mahabir. |
| Mr. C. S. Farquharson
(Jersey). | { | Mr. C. P. Rojas. |
| Mr. Harold A. Frere
(Country). | | Mr. D. Mahabir. |
| Mr. L. H. Ower
(British Honduras). | { | Major N. Godfrey Pigott. |
| Mr. A. D. Ganong
(Canada). | | Mr. W. G. Freeman, B.Sc. |
| Mr. G. Kibble White
(London). | { | The Hon. William Morrison. |
| Mr. Lawrence Henry Burd | | Mr. W. Gillespie. |
| | { | Messrs. Weber, Smith &
Hoare. |
| | | Mr. J. W. Pearl. |
| | { | Mr. Cyril C. Henriques. |
| | | Mr. W. Gillespie. |
| | { | Mr. Robert Rutherford. |
| | | Mr. W. Fawcett, B.Sc. |
| | { | Sir Edward Davson. |
| | | Mr. R. M. Parker. |
| | { | Mr. W. Gillespie. |
| | | Mr. W. Fawcett, B.Sc. |
| | { | Mr. Robert Rutherford. |
| | | Mr. H. F. Prévité. |
| | { | Mr. W. W. Arnott. |
| | | Mr. H. F. Prévité. |
| | { | Lady Lubbock. |
| | | Hon. W. Morrison. |

SOME NOTES OF INTEREST.

“ FARCE c'est farce, mais cassé bois sur macaque pas farce.”

* * *

THE Japanese consumption of sugar is about 600,000 tons annually at the present rate.

* * *

THE exports of cacao from the British West Indies for the first six months of the current year amounted to 48,146,489 lbs.

* * *

THE retail ex-duty price of refiners' granulated in London is now only 3d. a pound higher than it was immediately before the war.

* * *

“ AGRICULTURE, the oldest of the industries, is the most important, because it satisfies the most fundamental of man's demands.”

* * *

CAPTAIN PERCY NOBLE, C.V.O., who made a host of friends in the West Indies whilst he was Captain of the *Calcutta*, has been promoted to be Flag Captain in H.M.S. *Barham*.

* * *

573,008 proof gallons of imported spirit were used in the United Kingdom during the first eight months of the present year for methylation and in the arts and manufactures.

* * *

DR. HALL, Senior Zoologist of New South Wales, claims to have discovered in carbon tetrochloride a simple cure for hookworm, which is expelled without danger, it is said, by its use.

* * *

THE women of Barbados have sent to Princess Mary a wedding gift consisting of embroidered linen, a table centre-piece, and thirty-six d'oyleys, marked and embroidered in the island.

* * *

DURING the year ended June 30 last, 15,866,744 gallons of kerosene, and 33,916,586 gallons of petroleum spirit, including benzine, benzoline, gasoline, pentane, petrol and naphtha were imported into Australia.

* * *

THE Fordney Tariff Bill, which largely increases the rates of the United States Customs duties, became law on September 21st. American Treasury experts estimate that the new measure will yield about \$400,000,000 annually in revenue, of which amount sugar is expected to contribute no less than \$87,000,000.

* * *

By an amendment which has been adopted by the Senate, coco-nuts have now been placed on the Free List in the United States Tariff Revision Act. The duty on chocolate and cocoa, sweetened or un-

sweetened, has been amended to 17½ per cent. *ad valorem*, whilst that on cacao butter is reduced to 25 per cent. *ad valorem*.

* * *

A CABLEGRAM has been received by Mr. and Mrs. Rippon announcing the marriage of their niece, Margaret Robinson, at Toronto, Ont., on the 14th inst., to Albert Burton Cyrus ("A.B.C.") Throop, H.A., B.Sc., B.S.A., both "1922" students at the Ontario Agricultural College and Macdonald Institute, Guelph, Ontario.

* * *

TAKING time by the forelock, the West Indian Produce Association make an announcement in our advertising columns regarding the facilities they offer for enabling residents in the West Indies to send Christmas gifts of West Indian produce to their friends at home without the worry of packing, despatch, and payment of duties.

* * *

ACCORDING to official statistics quoted by the *Board of Trade Journal*, the quantity of sugar produced by German sugar refineries during the first ten months of the current business year amounted to 666,500 metric tons, i.e., respectively 88,500 and 239,500 metric tons more than in the corresponding ten months of the two previous years.

* * *

THE Socorro factory in Matanzas, Cuba, making about 15,000 tons of sugar, is to be dismantled on account of the inability to obtain enough canes to supply its full wants. This factory has turned out this crop a few thousand bags of white sugar, it being, according to the *Louisiana Planter*, one of the few large plants in Cuba able to make this class of sugar.

* * *

SIR WILLIAM DAVISON, K.B.E., M.P., is to preside at a meeting to be held at the Kensington Town Hall at 9 p.m., on Wednesday, October 4th, in connection with the Jubilee Commemoration of the Diocese of Trinidad. The speakers on this occasion will include Dr. Parry, Archbishop of the West Indies, Sir John Chancellor, K.C.M.G., D.S.O., and the Rev. E. Marling Roberts.

* * *

THE balance sheet relating to the Australian Government Sugar Control was submitted to the House of Representatives on July 21st. The period covered by it was from July 19, 1915, to June 30, 1922. The loss on the total operations appeared as being £255,186. The purchase of Australian raw sugar cost £36,325,332, and of foreign, landed, £18,750,034. Refining and distribution cost £6,902,932.

* * *

SPEAKING in the Australian House of Representatives on the Bill authorising a Reciprocal Tariff with New Zealand, which has now passed through all its stages, Mr. Watt (former Treasurer) said that he hoped that not only would it be the forerunner of reciprocity agreements with the other dominions, but lead to the consideration of a scheme at the next Imperial Conference in London for reciprocity throughout the whole Empire, including India and Great Britain.

THE Hon. Edward Wood, M.P., on September 19, formally handed over his seat, Temple Newsam, near Leeds, to the Corporation of that city, which has agreed to pay the nominal sum of £35,000 for the mansion, its treasures, and the estate. Addressing the members of the Corporation at a luncheon in the house, he said that the burden of taxation had become so severe that it had become increasingly difficult for him to maintain the estate as it deserved to be maintained.

* * *

THE South African Sugar Commission advocate payment by the factories to the planters on the basis of the sugar content of the cane instead of on the weight, as hitherto. They recommend that the factories should pay tram or rail transport of cane to the mills; that Durban price of refined sugar should be abandoned as a guide in fixing the price of cane, and that future payments should be made on what the crop of sugar, with by-products, realises wherever sold. The surplus mill profits should be divided between the miller and the planter.

* * *

FROM many inquiries for information which are reaching The West India Committee, it is certain that there will be more visitors to the West Indies from this country during the coming tourist season than there have been for many years past, thanks to the facilities now offered by the steamers of Messrs. Thos. and Jas. Harrison and Messrs. Elders and Fyffes, Ltd. Sir Stephenson Kent, K.C.B., who was Director-General of Munitions Labour Supply during the war, will be among the winter visitors, and it may be noted that Sir John Simon has been spending the long vacation in Jamaica, in which island Mr. Vernon Tate, grandson of Sir Henry Tate, will shortly be spending his honeymoon.

* * *

IN a paper which he recently read at Bournemouth Sir Daniel Morris, K.C.M.G., made the interesting statement that the fossil remains of the Nipa Palm have been found in the beds of the cliffs at Bournemouth. Some reference to this palm was made in a recent CIRCULAR. Its foliage is used in the tropics as thatch, and when burnt yields a supply of salt. From the toddy yielded by the spadix, sugar, vinegar, yeast and a strong spirit are obtained. It would appear that the slang word "Nip" for a small dram of spirits was adopted from the Nipa Palm. This discovery of fossilised palms at Bournemouth serves as a reminder that there was a time when the climate of what is now England was tropical or sub-tropical, which seems almost incredible, having regard to the recent atrocious "summer" weather.

OMELETTE AUX CHADRONS.—Fricassee first of all the sea-urchins (the white are eatable, the black not). Then break eggs as in making an ordinary omelette. Add the fricasseed sea-urchins. Beat up thoroughly and cook in a frying pan over a quick fire. A Guadeloupe speciality.

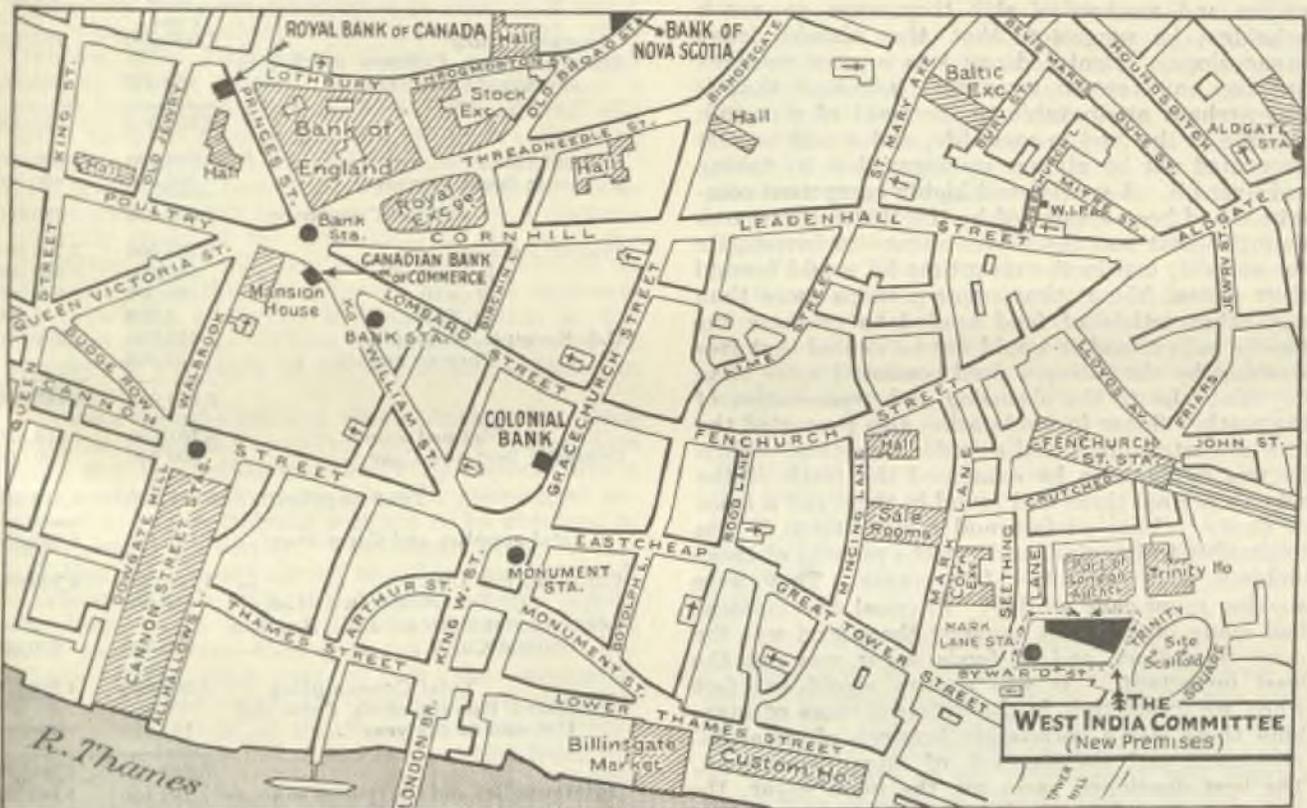
West Indian recipes for publication in this column will be welcomed by the Editor.

THE WEST INDIA COMMITTEE.

The New Premises at 14, Trinity Square.

As already announced, the address of The West India Committee on and after to-morrow, September 29th, will be 14, Trinity Square. The new offices, as will be seen from the plan published on this page, are immediately to the south of the Port of London Authority's new building, just behind Mark Lane Station on the Underground. The entrance is in a new street, occupying the site of the picturesque Muscovy Court, which used to connect Seething Lane with Trinity Square.

the same quarter of London, where we trust it will find more space for its activities. For many years it has served as the unofficial go-between twixt the commercial community in the British West Indies and the Colonial Office in Downing Street, and has held a close 'watching brief' on their behalf in a great variety of political and commercial matters. Our readers of bygone years will be aware from our past pages of the considerable extent to which this association worked for the abolition of sugar bounties and the amelioration of the British sugar industry. Sugar has been their staple crop interest, and they have had a large share in the success that has crowned of



SIFTON PRAED & Co., LTD., LONDON S.W.1.

Part of the City showing the position of The West India Committee Offices.

Some little time must elapse before the new premises are ready for the use of members, since they are being equipped throughout with new furniture, and certain structural alterations have to be carried out. Nevertheless, the work of The West India Committee will be carried on without interruption, and it is hoped that by the end of October or beginning of November everything will be in place.

Referring to the pending move, *The International Sugar Journal*, in its September issue, says:—

"The West India Committee, which has for many years past . . . carried on an extraordinary amount of miscellaneous work in somewhat cramped quarters . . . is about to move to larger and more commodious premises in

late years the long sustained effort to get a preferential tariff in this country for British sugar. The war threw on" . . . The West India Committee "a great deal of extra work and responsibility, mostly of a necessarily unremunerative nature, since the contingent that came to the war from the West Indies naturally looked to Seething Lane as their club, and they did not look in vain.

"But since rightly or wrongly, when the cost of living and maintenance went up, The West India Committee decided not to increase the rate of their annual subscription (which included a free copy of the fortnightly CIRCULAR)." Our contemporary then draws attention to the importance of increased financial support to the Committee being forthcoming.

SUGAR AND THE TEETH.

Sir James Crichton-Browne's Views.

Sir James Crichton-Browne, the distinguished physician, speaking at a dinner given by Bovril, Ltd., at the Trocadero in London last week, stoutly defended sugar against the attack made upon it at the recent conference of the British Dental Association, when a prominent member of that body denounced sugar, root and branch, and went so far as to say that sweets, chocolates, and pastry, by promoting the decay of the teeth, were seriously injurious to the health of the people, and were doing more harm than drink. With the profoundest respect for their dental brethren, to whose good advice and mechanical skill they were so much beholden, he suggested that they should leave sugar alone. Dental decay was a very complex question, and recent researches indicated that it was perhaps attributable to the want of a certain vitamin in the food in early life, and would be best prevented not by giving up sugar, but by taking cod liver oil. A special and highly competent committee had been appointed by the Medical Research Council—that was the Government—to investigate the subject, and in the meantime he would remind their dental friends that sugar perhaps more than any other article of food tended to promote the flow of saliva, and it would not be denied that free washing by the salivary fluid conducted more than anything else to the cleansing and preservation of the teeth. Sugar in moderation also promoted the flow of gastric juice, and so aided digestion. When he was in Jamaica he examined the teeth of the school children there and found in them not a trace of decay. More perfect and regular teeth it was impossible to imagine, and yet the mouths of those children were never free from sugar. They were sucking sugar-cane all day. Physical development had many factors, but amongst those food was the most important, and of foods sugar was not the least important. It was a very significant fact when we found that in the different races of mankind there was a correlation between physical development and the amount of sugar consumed. The best developed races ate the most sugar, the worst developed ate the least.

Of all the forces engaged in the Great War the Anzacs were physically the finest and had the best teeth, and the Australians consumed more sugar than any other race on the face of the earth. Before the war Australia consumed 100 lbs. of sugar per head per annum. Next to Australia came Denmark (and the Danes were a fine race) with 98 lbs. per head per annum. Next to Denmark came the United Kingdom with 85 lbs. and the United States with 81 lbs., while at the other end of the scale stood Spain with 13 lbs. and Italy with only 10 lbs., and the Spaniards and Italians, admirable as they were in many ways, were not just as well grown as the big sugar-eating peoples. In face of such facts, it was simply fatuous to condemn sugar and to affirm that sugar, sweets, and chocolates were more destructive than alcohol to the public health.

AMERICAN SUGAR POSITION.

A Correspondent's Optimistic Estimate.

THE WEST INDIA COMMITTEE CIRCULAR is indebted to an occasional correspondent for a table, published below, showing his estimates for the United States sugar position in 1923, as compared with 1922. It is proverbial that statistics can be made to prove anything, and the correspondent prefers, therefore, that readers should draw their own conclusions from these figures. In considering these figures, the CIRCULAR is inclined to suggest that the estimates for Porto Rico and the Philippines for 1923 are decidedly on the low side.

	1922 Tons	1923 Tons
Carry-over Cuba	1,080,000	100,000
Afloat Hatteras, Refiners' stock U.S. and unsold Louisiana	220,000	150,000
	1,300,000	250,000
Refined value	1,200,000	230,000
Domestic Beet Carry-over	700,000	400,000
Total Carry-over	1,900,000	630,000
Production Cuba	3,975,000	3,700,000
Porto Rico	385,000	340,000
Hawaii	480,000	500,000
St. Croix	5,000	5,000
U.S. Receipts, Philippines	150,000	200,000
Foreign sugars	50,000	—
	5,055,000	4,745,000
Refined value	4,701,150	4,412,850
Domestic Beet and Cane	500,000	600,000
Total Supplies	5,201,150	5,012,850
Total supplies and Carry-over	7,101,150	5,642,850
Consumption U.S.	4,700,000	4,700,000
Taken into Invisibles	300,000	—
Local consumption and Exports Refined Cuba	200,000	200,000
Total Consumption	5,200,000	4,900,000
Estimated Balance stock Cuba and U.S. end of the year	101,150	100,000
Total supplies and Carry-over as above	5,201,150	5,000,000
	7,101,150	5,642,850
Exports U.S. and Cuba to Europe and Abroad	1,800,000	642,850

The West India Committee have been furnished by the Department of Overseas Trade with the following statistics regarding the production of cacao in the State of Bahia, Brazil. They were obtained by the Commercial Secretary of H.M. Embassy at Rio from a reliable source:—

Crop Years.	Range of 50 Kilos
1913-14	612,495
1914-15	487,543
1915-16	419,838
1916-17	653,140
1917-18	814,412
1918-19	799,411
1919-20	850,873
1920-21	903,000
1921-22 (estimated)	492,393

THE AUDUBON SUGAR SCHOOL.

Its Organisation and Purposes.

The following particulars regarding the Audubon Sugar School are taken from the catalogue for 1922 of the Louisiana State University, to which it is attached. In view of the West Indian Agricultural College movement in the British West Indies, it should be particularly interesting to readers of the CIRCULAR to learn what is being done in the same direction in America.

The Audubon Sugar School was established in 1891 by the Sugar Planters' Association of Louisiana in conjunction with the Louisiana State University. The Sugar Experiment Station of the University had been established in 1886 at Kenner, La., whence it was removed to Audubon Park, New Orleans. The Experiment Station was organised by Dr. W. C. Stubbs, under whose direction a model experimental sugar house was erected and many varieties of cane planted, all on a scale large enough to represent correctly commercial practice. The remarkable results reached in Europe in the beet-sugar industry had been reached by a rigorous scientific study of the agriculture of the beet, the chemistry of the manufacture of beet sugar and its by-products in the sugar house, and the engineering principles employed in the application of the chemical principles. These methods it was resolved to apply to the study of the sugar-cane industry in Louisiana.

It soon became evident that valuable data were being accumulated rapidly, but that these data could not be applied practically by anyone save a man specially trained in scientific cane-sugar engineering, which training was not to be obtained in any existing university. The Sugar Planters' Association accordingly agreed to aid in financing such a school, and in 1891 the Audubon Sugar School was opened with a faculty of the ablest specialists to be found in the United States or abroad. Its success was so great that in 1897 the increasing duties connected with its management and the growing magnitude of the Sugar Experiment Station work compelled Dr. Stubbs to retire from the active directorship. The school was then incorporated with the State University, preserving the name by which it had become well known. In 1908 it was reorganised as a college of the University.

The primary purpose of the school is to offer to the citizens of Louisiana an opportunity to secure such training as will qualify them to enter most advantageously the sugar industry in the State. The underlying idea is to train men who should be competent to manage plantations which both grow cane and make sugar. To this end a course of study has been formulated, running through five college years, and including chemistry, agriculture, mechanical engineering, and sugar-making. Before the study of sugar chemistry proper, sugar manufacture or sugar-house engineering can be undertaken profitably, a thorough preliminary course is necessary. It is impossible to become a sugar chemist until the principles of chemistry are mastered, or to become a sugar engineer until mathe-

matics, drawing, and the principles of mechanics have been acquired. Men lacking the necessary foundations find it increasingly difficult to build thereon a successful career in applied science.

In the case of sugar engineering, this preliminary training is so special that students cannot always obtain it at other institutions. The first three years of the Audubon Sugar School aim to give the training desired.

The courses of the last two years of the Sugar School are essentially professional courses, and may be taken by such graduates or advanced students in this or other institutions as may be prepared to take advantageously the work offered. They include work in the study and design of sugar-house machinery, in sugar chemistry and methods of cane sugar manufacture. The distinguishing feature is the practical work in field and in sugar house required during two full sugar campaigns, and in the special agriculture of one sugar season at the Sugar Experiment Station, Audubon Park, New Orleans. Somewhat before the opening of the sugar campaign, a date which varies with the season, the students leave the University under the charge of a special instructor and report to the Assistant Director of the Sugar Experiment Station, Audubon Park. The instructor remains with the students until the season is over. Under his supervision the students work through a scheme of carefully considered studies in agriculture, chemistry, and sugar-house engineering, formulated by the heads of the corresponding departments in the University. Every Saturday during the sugar season the Dean of the Sugar School or the Professor of Mechanical Engineering visits the station, inspects the work done, and lays out the work for the next week. The following is an outline of the course followed by the students at Audubon Park, drawn up by the professors in charge of the subjects mentioned:—

THE STUDY OF AGRICULTURE.

The fourth- and fifth-year sugar students are expected to report to the park in time for the planting of all experiments in cane conducted by the Sugar Experiment Station, where they make a study of the purposes of the experiments and assist in every way possible in the planting. In fact, much of the actual planting is done by the students. For instance, there is an experiment in which is being tested the hereditary effect of planting cane-tops with comparatively immature buds, cane-butts having the most mature buds of the stalks, and the middles. The plot devoted to continuous planting of tops represents now the accumulated inheritance, whatever that may be, of some ten or twelve years; the data on tonnage, sugar content, and vitality of the cane are available to the student, and he is expected to study these results, at the same time helping in the selection of the different portions of the cane to be planted. The same is true of the other divisions of this experiment.

In studying the varieties of the cane, students take notes on the general characteristics of the more important varieties and those that have distinctive features, and actually help in stripping, topping and cutting the canes, weighing them, and

selecting stalks for analysis in the laboratory, computing the data desired in regard to the varieties, etc. They are expected also to make notes and observations on the field results of the application of fertilisers; to assist in determining the number of suckers and their ages, on the plots where experiments are conducted for studying the conditions that influence the suckering of cane; and to make a study of the field conditions of plant-cane, first-year stubble, and second-year stubble, as to stand, maturity, etc.

They are generally expected to participate in the sowing of fall crops of forage, alfalfa, clovers, vetches, etc. It is further desired that they will make a full study of the sugar-cane borer and other insect enemies of sugar cane.

SCIENTIFIC FACTORY CONTROL.

The student goes to the Park with a knowledge of the principles of sugar analysis, including the use of the polariscope and the estimation of reducing sugars. He there makes complete technical analyses of cane, bagasse, juice, syrup, molasses, and sugar—determining sucrose, glucose, ratio, real and apparent purity, etc. After he has learned to make the usual analyses with accuracy, he is called upon to exercise a chemical control of the sugar-house. To this end, he takes samples from the practical work of the sugar-house at Audubon Park and calculates the chemical and mechanical losses incident to each run. Given a definite amount of cane, he is required to find out the extraction, and effect upon extraction of saturation between the rolls; to analyse the juice; to determine the total sugar therein and the amount lost in clarification, evaporation, and filtration, the mechanical and chemical losses in the effects and the vacuum pan, the sugar left in the molasses, etc. In short, he must make a detailed and systematic chemical and mechanical control of the sugar-house and the entire process of sugar-making. From the data thus obtained he fills out a printed blank report, which is submitted to the instructor for inspection. This report is modelled after the reports made use of in actual work of the best sugar-houses in Louisiana, Cuba and elsewhere. Particular attention is paid to the calculation and interpretation of the laboratory data. The amount of practice obtained in this line of work is sufficient to enable the student to fill a commercial position with confidence, both in the accuracy and in the rapidity of his work.

In addition to the above, investigations are being continually carried on by the staff of the Station, which the student is expected to follow with care, and, where possible, to participate in. These are for the most part devoted to methods of sugar analysis, to the separation and estimation of the various compounds found in sugar-cane and its by-products, to the testing of new methods proposed for sugar-house work, to sugar-house bacteriology, to fermentation and alcohol production, and to such other problems as may arise from time to time.

(To be continued.)

A few subscriptions to the West India Committee are still outstanding. Punctual payment helps.

EMPIRE COTTON GROWING.

Grant to The Agricultural College.

The Empire Cotton Growing Corporation have decided to contribute £500 a year for two years to the funds of the newly-constituted Agricultural College in Trinidad. The grant has been made with the proviso that the Corporation is given representation on the Governing Body of the College, and that any students sent by them for special training shall be received without payment of fees, or at substantially reduced fees. Sir James Currie, K.B.E., C.M.G., the Director, has been appointed by the Executive to represent the Corporation on the Governing Body, subject to the conditions attached to the grant being accepted.

The research work at St. Vincent on genetical problems connected with Sea Island cotton, originated by Dr. S. C. Harland, at the instance of the Department of Scientific and Industrial Research, was taken over by the Empire Cotton Growing Committee of the Board of Trade in 1920. Dr. Harland was succeeded in December, 1920 by Dr. Montague, who was, however, forced to resign on account of bad health in May, 1921, since when his place has been filled by a member of the staff of the Imperial Department of Agriculture. This officer is now required to return to his duties, and the Corporation have accordingly appointed Mr. L. H. Burd, B.A. (Cantab.), to relieve him and to take over the work. Mr. Burd sails for St. Vincent on October 14th.

COTTON IN SOUTH AFRICA.

Although the production of cotton was first attempted in South Africa about fifty years ago, success did not attend the efforts of the early planters, chiefly on account of labour and transportation difficulties, but partly on account of the lack of cultural knowledge. The Union Government undertook a series of experiments to determine the possibilities of growing cotton in South Africa. As a consequence, new interest in this industry was awakened, and now there are approximately 8,000 acres under the cultivation of cotton in the Rustenburg district, 2,000 acres in the Waterberg district, 100 acres in the Tzaneen section, 50 acres in the Transkei district, and 4,000 acres in Natal.

Planting takes place during October and November, and the picking begins in April and continues until June or July. In the Rustenburg district, the largest cotton-producing area in the Union, the best results have been obtained from the class of cotton belonging to the big boll group. The average yield is 250 to 300 pounds of lint per acre. In some sections where light frosts occur, growers practise "ratooning," that is, they permit the plants to stand for two or more years instead of ploughing the land each year and planting again. The yields are, as a rule, better from "ratooned" fields, and the lint does not appear to be of a lower quality. In any event, this method of cultivation decreases materially the cost of production, but it can be practised under favourable conditions only.

A NATURALIST IN TRINIDAD AND TOBAGO.

By P. LECHEMERE GUPPY,

Member of the Civil Service, Trinidad and
Tobago.

The following notes are selected from many regarding more or less familiar natural history objects which the writer has jotted down from time to time. It is hoped that they may prove of interest, not only to the naturalist, but also to those who have visited Trinidad and Tobago or may intend to do so.

The waters around Tobago offer a fine field not only to the scientific collector but also to the sporting angler. It is important that the fisherman should be properly equipped, and a prime necessity for comfort is a seaworthy motor-launch. Rough seas and strong tides have to be encountered, and it must be borne in mind that the best fishing is in the open waters of the Atlantic, not in placid pond-like conditions that usually obtain inside the Bocas in the Gulf of Paria, Trinidad.

Tackle of all kinds will be found useful, light as well as heavy, since sport will probably not be confined to the deep seas only. To quote from Harry Vincent's "Seafish of Trinidad"* (pages 18 and 19): "Presumably most angling visitors from the North will fish with rod and reel. . . . Although I have a rod and sometimes fish with it, I prefer the handline, particularly for trolling. . . . I know the rod-angler affects to look with contempt on the hand-liner, says there is no skill required, merely a pulley-hauling affair, etc., but I have as an authority John Bickerdyke, the famous English angling expert, who says, 'playing a fish is a mere matter of hands, and really expert hand-liners are able to play a fish hooked on fine tackle skilfully and carefully with their hands, just as the fresh-water angler can by means of a rod.'

"It must be also recognised that whereas the rod-angler is generally well pleased with a bag of fish running from $\frac{1}{2}$ lb. to 5 lbs., the hand-liner in these waters requires from 10 lbs. to 30 lbs. to arouse enthusiasm."

Besides deep-sea sport there will be fishing from the rocks, fishing close inshore, and a milder kind from the banks of streams where the lightest possible tackle may be used.

In these notes mention will be made of the more familiar fishes, also of others to which some interest attaches, either from an economic standpoint or from some peculiarity.

The question of poisonous fishes is one that calls for extensive and intensive investigation. In the writer's opinion, people in Trinidad and Tobago have no cause to fear any trouble from this source if ordinary precautions are taken. Reference will be made farther on to some poisonous fishes, and a few that appear to be occasionally deleterious.

The modes of fishing in Tobago are very primi-

tive, and have been handed down from generation to generation. Briefly, they are:—

1. Seines used in sandy bays.
2. Fish-traps among the reefs and rocky bays.
3. Trolling with hand-lines from sailing or rowing boats.
4. Fishing with deep-sea hand-lines, called "banking."

There are about nineteen bays around the island where fishing is carried on, and there are about eighty fishing-boats manned by three or four men each. If the sea is very rough they do not venture out, but this rarely occurs; and when it is too rough on the north side of the island it is still possible to fish on the south side, and *vice versa*. Frequently fishing-boats from neighbouring places—Venezuela, Grenada and St. Vincent—visit the Tobago fishing grounds and make good hauls; but there has never been any attempt at systematic stream-trawling with modern apparatus.

In an old undated report placed at the writer's disposal by Mr. Hendy, of Scarborough, Tobago, mention is made of American whalers visiting the western part of the island in January to March. "They are tolerably successful in catching what is called the black whale." The visits of whales of any kind are few and far between in these days.

THE PRACTICE OF SEINING.

The seines or nets are made by the fishermen themselves, and are long and fairly deep (200 to 300 ft. by 10 to 20 ft.), with small mesh at centre and large mesh at sides. These seines can only be used in sandy bays. There is a long rope at each end of the seine for hauling it ashore with its load of fishes, which are landed on sloping beach high and dry.

Large shoals of fishes come near the shore to feed on the small fry and sardines that frequent the bays; as soon as these are spotted the boats put out and surround them with their seines. Flocks of gulls and pelicans follow the seine boats and get a meal with little trouble when the nets are being hauled in, and after, if the catch is a big one. To a certain extent these birds earn their "free" lunch, as their activity at sea often shows where the shoals of fishes are.

The fishes mostly caught by this method are bonito (*Thynnus aliteratus*, syn. *Sarda sarda*), king fish (*Cybinus regale*) and mackerel (*Scombridae*); black jack, small jack, round robin, horse cavalli, karang (*Caranx* spp.), sardines (*Atherinidae* spp.), sprats and small fry (*Clupeidae* spp.).

Sometimes rare and peculiar fishes are brought in, also a few of the delicious soles or flounders, or "aileronde." There are no fewer than five different kinds of these flat fishes that have both eyes on one side of the head; three species are rare, but unfortunately none is plentiful. They belong to three families—(1) *Bothidae*, (2) *Pleuronectidae*, and (3) *Soleidae*.

Frequently large blackish patches are seen near the shore. These are shoals of anchovies (*Engraulis* spp.). The writer has seen these frail-looking little fishes so thickly congregated in the shallow water that he has been able to wade in and dip them up in a hand net by the hundreds. These

* This admirable book gives details of sea-angling in Trinidad.

anchovies are the most abundant of all fishes, and are seen round the sea-coast at all times of the year pursued from place to place by pelicans and gulls from above, and various fishes of all kinds



Fig. 1. "Gaff" about three feet long for securing fish which are too large to lift into the boat on line alone.

from below. These little fishes play an important part in luring the large ones inshore, so that they can be scined and hooked. Sardines and sprats (*Clupeidae* and *Atherinidae*) also play an important part in attracting the desirable fishes. One of the sprats (*Harengula macrophthalma*) has a bad reputation as a poisonous fish. Large numbers of these small fishes are brought ashore in the seines, as also the larger round robins and jacks. The two last mentioned are much appreciated as food, and all make good bait for trolling.

It is a wonderful sight to see the seine hauled in with a big catch of bonito, for some time after they are landed on the beach there is a scene like a shambles. Hundreds are to be seen jumping about, beating themselves in the sand, and blood pouring from their gills. This fish is very abundant, and is salted and dried, and much used as food by the natives. The roes are considered a great delicacy by all classes.

Kingfish and mackerel are sometimes plentiful in the seine hauls; the former reaches a large size.

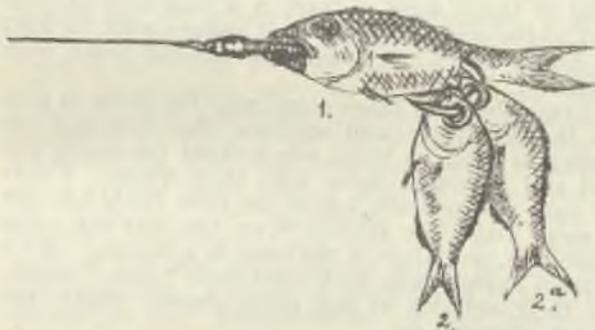


Fig. 3. Method of baiting hook with small fish for trolling, as practised off Tobago. 1. Tied to hook. 2 and 2a. Suspended by passing hook through eyes.

The writer has seen some specimens in the Scarborough market well over 5 ft. in length. Plymouth, five miles from Scarborough, is the principal fishing centre from whence the finest specimens are obtained; conditions for seining are most favourable here; a very extensive sandy bay always crowded with fish.

Daily seining is carried on at Plymouth by five to ten boats, some of which seldom fail to secure a fair catch. The best fishes are placed on trays and carried to the market (five miles away) on the heads of native women and girls.

Large numbers of black jack (*Caranx lugubris*) are taken at the windward end of Tobago, and three other species of cavalli or karang, belonging to the same family *Carangidae*, called in Tobago "green-

backs"; in Trinidad "camard," "cavalli," "carangue." As noted further on, most of these give good sport trolling.

THE USE OF FISH-TRAPS.

These are set amongst reefs or rocky bottoms in shallow water, buoyed with pieces of wood (bamboo), to mark locality in which they are set. They vary in size somewhat, are rather cleverly made by the fishermen of wild cane, bamboo and mangrove wood woven strongly together, tied with ropes made of creepers (lianes) nearly square in shape, mesh about $\frac{1}{4}$ in., with a funnel-like opening at one side, which the fishes are easily enabled to find and go into, but are unable to make their way out again. These traps may be baited or not; the fishes will find their way in from mere curiosity, anyhow.

Traps are lifted three or four times weekly.

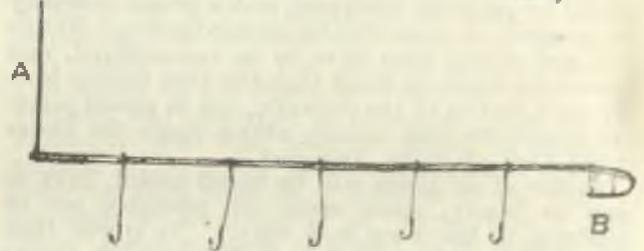


Fig. 2. A method of banking in use off Tobago. A piece of "supple-jack" (*Panlinea* Sp.) stem six feet long, with bend at the end B in which a weight is fixed. Hooks are placed at intervals, and the "supple-jack" is sunk in deep water with a strong deep sea line from the boat.

Many kinds of fishes are caught in these traps. The most important are those belonging to the family (1) *Lutjanidae*, known popularly as "red-fishes," "snappers," "pargues," and (2) *Sparidae*—"porgy" (*Calamus* spp.); (3) *Pomadasidae*—"grunts" (*Haemulon* spp.).

There are from twelve to eighteen species, belonging to these three families, of excellent food fishes, well known by various popular names. The different species have their seasons when they are plentiful, and some are rather local in habitat. These all give good sport banking.

Many fishes that could not be caught otherwise enter these traps, such as the beautiful "parrot" fishes (*Scaridae*), called "chubs" in Tobago, of every imaginable colour. Perhaps even more beautiful are some of the *Labridae*. Among these is the capitan (*Lachnolaimus falcatus*), which grows to a good size and looks like a red-fish, but its peculiar mouth has earned for it the name of "hog-mouth snapper" in Tobago. There is a small Iridio called the "rainbow chub" possessing all the hues of the rainbow. The "butterfly" fishes (*Chaetodontidae*), "angels," and "rock beauty" are plentiful, also *Teuthididae*, or "Doctor" fishes, with lance in socket at base of tail.

The yellow-tail (*Lutianus Chrysurus*), "squirrel" fish (*Holocentrus ascensionis*), and the "goat" fish (*Upeneus* sp.) are very plentiful around Buccoo Bay and vicinity, together with a fair sprinkling of "grouper" (*Serranidae*), of which there are at least nine different species, some

possessing a brilliant spotted exterior, vermilion or blue, others sober browns and greens. These "grouper" are reckoned among the most esteemed food fishes, and occasionally reach a size of over 200 or 300 lbs.

Some of the peculiar fishes met with now and then will be dealt with in a later note.

THE SYSTEM OF BANKING.

The enthusiastic sportsman will doubtless be able to improve on some of the local methods employed in this kind of fishing, which affords very good sport when the right banks are located. The usual method is to have three or four hooks attached to the end of a line many fathoms long. The hooks are mounted on short wires just above the heavy lead sinker. The best "banks" lie far out to sea, and it is on this account that a seaworthy motor-launch is necessary. It will enable fishing to be conducted in comfort and save time in covering the long distances that may be requisite in getting to and from the banks. Currents are strong and seas run high.

It is only on the "banks" that the very large snappers or redfish are caught, although the smaller ones and the grunts give good sport as well, and no doubt rod and reel, where the water is fairly shallow, will give very satisfactory results; the smaller fish are at times very plentiful and bite ravenously in such situations.

Of course, other kinds of fish are caught when bottom-fishing, and it may happen that a shark is hooked. Should this occur it is better to move on to another place, since the fish become scarce when this tiger of the deep appears.

TROLLING FROM A MOTOR LAUNCH.

The remarks made above about using a motor-launch apply to this, the grandest sport of the angler, with even greater force than they do to banking. The native sailing and rowing boats can, of course, be hired for a consideration and tried, but they are not by any means comfortable, are rather makeshift affairs, and are too much at the mercy of wind and tide.

Rod and reel can be used, or hand-lines, but very strong tackle is required if the latter are used in the usual way, i.e., pulling the fish in directly it is hooked.

The speed of the boat must be rather slow, not more than three to four miles an hour; if this speed is exceeded hook and line skim the surface of the water, and the bait is not seen, as the fish are often feeding at a good depth, and will not rise to the surface. In any case, it may be advisable to put a weight on the line.

Spoon-bait is useful, but the most effective is fresh-bait. Sprats, sardines, round robin and small jack, or an elongated strip of mackerel cut from the side, the shape and size of an ordinary sardine, will do very well.

(To be continued.)

Copies of "The Manufacture of Cane Sugar" can be obtained at The West India Committee Rooms, price 25s. each, or 26s. post free.

TROPICAL DISEASES.

Endemics can be Abolished.

In a paper read at the International Congress on the History of Medicine, held in London recently, Professor W. J. Simpson, C.M.G., M.D., put on record some striking facts regarding the campaign against endemic diseases. In the case of scurvy, he pointed out that it was Sir Gilbert Blane, when Physician to the Fleet in the West Indies, who first secured systematic provision of suitable food, including a regular supply of lime or lemon juice, throughout the Fleet. Had some such means not been organised and put into practice, and this long before the rôle of vitamins was understood, it is probable that between 1798 and 1815 the whole stock of British sailors would have been expended through the wastage due to scurvy and fevers.

Professor Simpson went on to say that it was in the tropics that endemics, due to bacteria, unlike those caused by protozoa, threatened periodically to become epidemic. It was the application of our present knowledge that was needed in the tropics, and it was there also that we could best solve the problems connected with epidemics and endemics, whether in man or animals. Malaria, dysenteries, and pellagra were practically the same diseases as were endemic in England in the eighteenth century, and there was every reason to affirm that with our additional knowledge, these diseases could be prevented and abolished in the tropics by much more rapid and surer methods than had been the case in this country.

So with ankylostomiasis and bilharziasis; sanitary measures and treatment could get rid of them. Elephantiasis was another endemic disease disfiguring its victim. We knew the conditions that caused it, and the measures that should be taken to abolish it and free the next generation, and yet they were not taken. Leprosy was another loathsome disease. We knew its casual agent, but not the reservoirs or vehicles by which it maintained its endemicity. Why was the problem not tackled?

The lecturer stated that his own experience in the tropics was that, notwithstanding the splendid work which had been accomplished by sanitary commissioners and medical officers, no health administration was able to deal effectively with the endemic diseases there until its organisation was conceived on a wider basis than at present.

Professor Simpson concluded by urging that an effort should be made to map out the more permanent localities of endemic tropical diseases on similar lines to those employed by the Rockefeller Foundation in regard to yellow fever, and that these should be studied from every known point of view by special commissions, financed by voluntary associations.

THE imports into, and exports from, the United Kingdom of crude petroleum and of petroleum products were, for the first eight months of the respective years, in gallons:—

	1921.		1922.	
	Imports.	Exports.	Imports.	Exports.
Pet. Crude	47,650,853	3,080	139,369,697	24,827
Pet. products	729,188,055	13,453,138	723,792,128	37,945,923

HEALTH IN THE TROPICS.

Eminent English Surgeon's Views.

Sir John Bland-Sutton, the distinguished consulting surgeon, on his return from a visit to Brazil, gave his impressions to *The Times* regarding the health conditions prevailing there, in a communication which was published on September 15th.

"At Manaus," he wrote, "Dr. Wolferstan



Government House, Tobago.

In the grounds of this old house are the graves of several members of the family of Sir F. P. Robinson, Governor.

Thomas, who was trained in the excellent School of Tropical Medicine at Liverpool, gave me every opportunity of seeing the excellent arrangement made, not only for investigating tropical diseases, but for treating them. Only those who have had opportunities of studying diseases in tropical countries can realise the difficulties with which medical officers of health are faced in making uneducated people appreciate the importance of the precautions necessary to be observed. It seems to many of them strange and unthinkable that doctors should devise and carry out methods for the prevention of disease, but it is more difficult to persuade them that the destruction of animal refuse of all kinds is the simplest way of controlling the multiplication of flies, mosquitoes, and similar pests, a fact that Moses appreciated when he formulated his famous camp rules while leading the Israelites through the wilderness. To-day, for Europeans living in a Brazilian town, life may be as safe as in an English town if the regulations laid down by the medical officers of health are strictly observed.

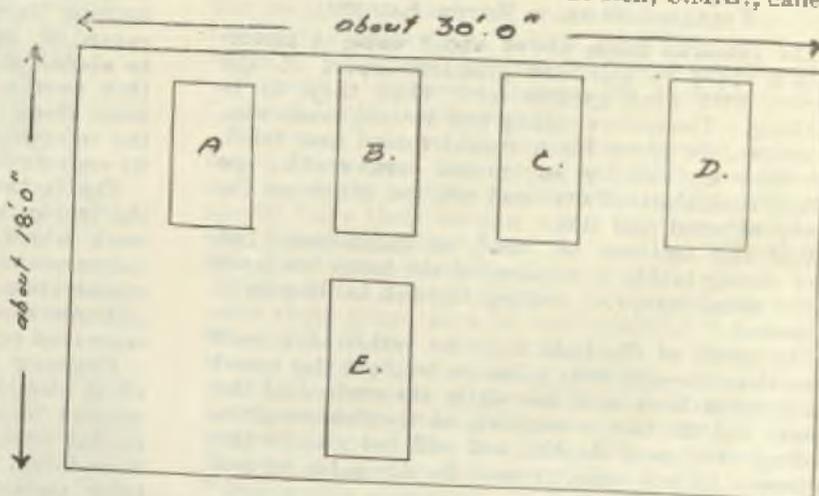
"My visit to the Amazon has confirmed me in this opinion:—The occupation of tropical countries by Europeans has been hindered more by small biting insects than by the arrows and spears of savages."

THE TRAGEDY OF A GOVERNOR.

West Indian history has a curious way of repeating itself. Recently the salary of the Governor of Barbados was reduced by the House of Assembly, and it would appear that this action had an historic parallel one hundred years ago. The following extract from its issue of September 12th of 1822 was published in *The Times* of the same day this month:—

"The communications between Sir Frederick Robinson, Governor of Tobago, and the House of Assembly in that island will, we trust, produce a salutary impression upon the heads of the department at home. It must be considered a most unquestionable and painful proof of the grievous condition to which the finances of our colonies are reduced, that the amount of a Governor's salary, bestowed spontaneously within a few years, should form the sole subject of a voluminous controversy between the party granting and the party receiving it. The poverty of the colonies may well have overcome their delicacy, in forcing them to speak on such a topic to the object of their former bounty: but what can be urged for the dignity or decent pride of him, who could reject, an appeal so just, and so mortifying to those from whom it proceeded?"

Major-General Sir Frederick Phillips Robinson, K.C.B., was gazetted Governor of Tobago on February 18th, 1816,* and he filled that position for some years. Some little time ago the Hon. Archibald G. Bell, C.M.G., called



Part of the old Graveyard in Tobago.

Showing the arrangement of the graves in the grounds of Government House, Tobago. The inscriptions are given on the opposite page.

the attention of the writer to the existence of the graves of four members of that unfortunate Governor's family in a small graveyard in the grounds of Government House, Tobago.

The arrangement of the tombstones is shown on

**Gentlemen's Magazine*, 1816, p. 273.

the plan which, with the inscriptions and a photograph of Government House by Mrs. Bell, are reproduced on this and the opposite page. Referring to the inscriptions, Mr. Bell wrote: "It is pathetic to picture Sir F. P. Robinson living his lonely life in the house near by, after his wife, the last of the four of his family to be buried in the small cemetery, had left him."

He continued: "The grave without any inscription, and marked 'E' on the plan, is that of Sir William Young, Governor of Tobago from 1807 to 1816, and Sir F. P. Robinson's immediate predecessor. Sir William Young was, as you doubtless know, a Member of Parliament and a recognised authority on West Indian matters, and he was a most popular Governor of Tobago. The memorial tablet which the House of Assembly

THE MAP OF THE WEST INDIES.

A well-known firm of merchants in Halifax, Nova Scotia, writes: "We had one of your old maps, we presume that published in 1914, which was, unfortunately, destroyed in a fire in our office. We have missed it so much that only to-day we were forced to purchase a chart to take its place; but we find the chart is not nearly as satisfactory for reference as your old map."

This is one of many unsolicited commendations of The West India Committee's map of the West Indies which have been received; but if the old map was better than the Admiralty chart, what shall be said of the new map? There is a general consensus of opinion that it is by far the most prac-

A	B	C	D
TO THE MEMORY OF HARRIET DAUGHTER OF SIR F. P. ROBINSON K.C.B. GOVERNOR OF TOBAGO SHE DIED JANUARY 9TH 1818 AGED 10 YEARS OF THE MALIGNANT FEVER WITH WHICH THE ISLAND WAS THEN AFFLICTED SHE WAS A CHILD OF THE MOST AMENABLE AND ENDOWING DIS- POSITION AND ENDURING IN THE HIGHEST DEGREE	TO THE MEMORY OF LIEUT. F. P. ROBINSON OF THE 4TH REGIMENT OF FOOT AND DE CAMP AND PRIVATE SECRETARY TO HIS FATHER SIR F. P. ROBINSON, K.C.B., GOVERNOR OF TOBAGO HE DIED OF A MALIGNANT FEVER MARCH 15TH 1820 IN THE NINTH YEAR OF HIS AGE DEEPLY LAMENTED BY HIS FATHER AND FAMILY AND BY ALL WHO KNEW HIM	TO THE MEMORY OF AUGUSTA ROBINSON 4TH DAUGHTER OF SIR F. P. ROBINSON, K.C.B. SHE DIED OF A MALIGNANT FEVER APRIL 19TH 1820 IN THE 15TH YEAR OF HER AGE WHILE LIVING SHE WAS THE DELIGHT OF THE FAMILY TO WHOM HER DEATH WAS THE CAUSE OF IMPRESCIBLE GRIEF J. PELLINARI.	HERE LIES THE BODY OF ANNE THE WIFE OF HIS EXCELLENCY SIR F. P. ROBINSON GOVERNOR OF TOBAGO SHE DIED ON THE 6TH DAY OF OCTOBER, 1823 IN THE 60TH YEAR OF HER AGE AFTER A PAINFUL AND TEDIOUS ILLNESS WHICH SHE BORE WITH UN- EXAMPLED FORTITUDE AND PURE RESIGNATION TO THE DIVINE WILL CROSSI, BARBADOS

Inscriptions on Graves in the Grounds of Government House, Tobago.

These sad inscriptions, which tell a tragic story, were copied by the Hon. Archibald G. Bell, C.M.G.

provided was, for some reason which I have not yet verified, not put on the grave at Government House, and is now on the wall of the Church of England in Scarborough.

"Government House must have been built in the very early years of the 19th century. It is a typical Colonial house."

tial and useful map of the Caribbean area in existence, giving as it does, much information regarding areas, population, steamship and cable routes, etc., a knowledge of which is essential to every business house or individual trading with, or interested in, the West Indian Colonies. The map should find a place in every club, office and school throughout the West Indies, and the assistance of members of The West India Committee in making it known in such quarters is solicited.

The price of the Map, which is obtainable from The West India Committee, 14, Trinity Square, London, E.C.3, is as follows:—

STEAMER SAILINGS.

To	From	Packet	Sailing
West Indies	Dover	<i>Stuyvesant</i>	Sept. 30
Jamaica	Liverpool	<i>Nubian</i>	Oct. 3
Jamaica	Bristol	<i>Matagua</i>	Oct. 7
Bnta & Ja'ca	Bristol	<i>Bayano</i>	Oct. 7
B'dos & T'dad	Liverpool	<i>Alexandrian</i>	Oct. 7
B'dos, T'dad & Demerara	Glasgow	<i>Intombi</i>	Oct. 10
West Indies	Dover	<i>Van Rensselaer</i>	Oct. 14
West Indies	Halifax	<i>Chignecto</i>	Oct. 16
Demerara & Trinidad	Amsterdam	<i>Nickerie</i>	Oct. 19
West Indies	New York	<i>Parima</i>	Oct. 20
Jamaica & B. Honduras	New York	<i>Santa Marta</i>	Oct. 21
Gad, T'dad & Demerara	New York	<i>Matara</i>	Oct. 24
Jamaica	New York	<i>Carillo</i>	Oct. 25
West Indies	Halifax	<i>Caracquet</i>	Oct. 30
West Indies	New York	<i>Guiana</i>	Nov. 3

	Price	Post Free U.K.	Post Free W. Indies.	Other Coun-tries.
Sheet	7/6	8/6	9/6	10/6
Mounted and folded	15/-	15/6	15/6	15/6
Mounted on rollers	12/6	14/-	19/-	*

*Canada 22/-; elsewhere according to destination.

Orders for the Map are being received from every part of the Empire, and also from the United States.

The London daily newspapers of September 26 give the report of the prosecution of the Secretary of Angostura Bitters, Ltd., and a stockbroker for offering a commission to the Accountant of the Public Trustee. The case is still proceeding.

INCOME TAX LEGISLATION.

LORD BURNHAM AND JAMAICA.

The "F.B.I." and the Trinidad Ordinance

The Federation of the British Industries has followed the example of The West India Committee by protesting against the anomalies of Income Tax legislation in Trinidad. They point out that under this legislation the resident agent or agents of non-resident principals are liable to assessment in respect of goods sold in the Colony for their principals, whose income will be assumed to be 10 per cent. of the value of the goods sold if the income cannot otherwise be ascertained to the satisfaction of the Commissioner. The assessment will be based on a three years' average, and the local representative will be held responsible for the payment of the tax. The tax, therefore, is a charge on profits, and as such is bound to exercise a restrictive effect upon trade.

They received from one of the member firms a letter, in which it was stated:—"The large manufacturer who exports to Trinidad, and who has a representative in the island, is going to be penalised in comparison with the small manufacturer who has no representative there, and does his business only through merchants in this country. Secondly, it is proposed to levy the tax on the basis of an assumed income of an amount not exceeding 10 per cent. of the selling price of the goods if the income cannot otherwise be ascertained to the satisfaction of the Commissioner. In our case, as it would be impossible to ascertain at all exactly the profits on our Trinidad trade alone, it is to be presumed that the Commissioner would not accept our figures, so that we should be left to be assessed by him on the selling price, presumably in Trinidad, which would include freight and insurance, which in our case amounts at present to about 45 per cent. of the f.o.b. value, and while, as is the case now, we might be making little or no profit, and even a loss on our trade with the island, we should be asked to pay an income tax on presumed profits based not only on our f.o.b. price, but on freight and insurance.

"Our representative in Trinidad is paid on commission, so that the larger our trade the greater is the income tax which the Government receives from him, but if we also have to pay income tax out there on fictitious profits, it will probably lead to our discontinuing having a representative in the island, in which case the Government would not only not get the additional income from this proposed taxation, but would lose the income tax on what we now pay our representative."

The Federation took so serious a view of the complaint that they wrote to the Colonial Office, pointing out that the proposed tax is bound to have a restrictive effect upon trade between the United Kingdom and Trinidad since many firms will consider the cancellation of their agencies held in the Colony, and will risk falling back upon selling direct.

Moreover, the Federation points out that the danger exists that if this ordinance remains un-

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The Jamaica Imperial Association has invited Viscount Burnham, in his capacity as Chairman of the Empire Parliamentary Association and the Empire Press Union, to visit Jamaica during the forthcoming winter. It is known that Lord Burnham is favourably inclined towards accepting the invitation, though much must depend on the political situation in this country, for if a General Election were imminent, he would not be able to leave England. However, it is hoped that such a contingency may not arise, and that Lord Burnham, who will be accompanied by Lady Burnham and representatives of the two bodies of which he is Chairman, may leave for Jamaica early in the New Year.

The tour must be limited to two months, for Lord Burnham is a busy man, and in the circumstances it is feared that he may not be able to visit the other West Indian islands, though it is possible that he may call at Nassau, Bahamas, on his way to Jamaica.

The advantage of a visit of so distinguished a journalist to the West Indies should be incalculable, and possibly arrangements may be made for representatives of trade and other interests to meet him in Jamaica, with the help of the Associated West Indian Chambers of Commerce, and for a conference of journalists also to be held.

The Jamaica Imperial Association must be congratulated upon their activity in this, as in other matters.

ACCORDING to *African Industries*, the variety of cacao grown in Nigeria is the same as that grown in the Cameroons, but the latter almost invariably realises 10s. more per cwt. on account of its being better cultivated and cured. Experiments conducted by the Agriculture Department of the former colony have amply demonstrated that both the yield and quality of Nigerian cacao can be greatly improved by the adoption of better methods of cultivation and curing. The Amelonada variety, which is that grown in Nigeria, requires at least six days for fermentation.

altered there is every likelihood of the example of Trinidad being followed by other West Indian Legislatures, in which case the effect upon trade would be very considerable. If this form of income tax is withdrawn, not only will the risk of cancellation of agencies be avoided, but the more agents there are, and the greater the volume of trade they do, the larger will be the revenue derived from them by way of ordinary income tax and other forms of taxation.

It will be recalled in this connection that at the suggestion of The West India Committee an Inter-departmental Committee was appointed earlier in the year to consider the question of Colonial Income Tax legislation, and that the preparation of a Model Income Tax Bill was urged. It is understood that this draft Bill is now in course of preparation, and it is not too much to say that the need for it is becoming more manifest every day.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

Of the variety canes reaped at the Peradeniya Experimental Station in Ceylon in March and April last, DK 74 gave 427 tons per acre, "Sin Nombre" 38.9 tons, Red Top Mauritius 32.1 tons, No. 3,390 22.4 tons, Striped White Tanna 20.1 tons, and Barbados 208 13.8 tons. The canes were from 17 to 18 months old. The general public seem to have appreciated the last-named cane, as a note occurs in the report to the effect that "signs of fairly extensive thefts were found in this plot," accounting for the apparently poor yield.

* * *

Mr. Harcourt Paine, manager of the Chilean Nitrate Committee, recently stated in an address delivered before the United States National Fertiliser Association Convention, that apart from Chili, the world produced in 1921 inorganic nitrogen equivalent to 3,500,000 tons of nitrate of soda, of which the German equivalent nitrogen production was 1,800,000 tons, the British 500,000 tons, and the United States 750,000 tons. Chili, said Mr. Paine, could, with its existing appliances, produce nearly 4,000,000 tons per annum of nitrate of soda.

* * *

At a recent meeting of the Ceylon Board of Agriculture, Mr. Stockdale, the Director of Agriculture, referred to the successful experiments which had been conducted as regards cotton growing in Ceylon. Cotton, he said, could be grown well in the north-western, northern, and Uva provinces, if climatic conditions were favourable. The three varieties experimented with were American Upland, Cambodia, and Egyptian. An offer had been received for the Cambodia cotton grown of Rs. 20 (about 26/8) per cwt. from the Colombo spinning and weaving mills.

* * *

The Fertiliser and Feeding-Stuffs Journal, in its edition of August 2nd, gives a summary of results obtained at various agricultural colleges and experiment stations in the United Kingdom with the experimental manuring of oats, swedes, and mangolds with nitrate of lime, which shows that this manure compares very favourably with sulphate of ammonia and nitrate of soda. Unfortunately, this apparently ideal form of field nitrogen is not suited to the tropics on account of its deliquescent character, which causes it to be leached out of the soil to which it has been applied by tropical rainfall.

* * *

The orange tree is an extremely important factor in honey production on account of the large quantities of nectar that the blossoms yield. In California this is so abundant that labourers working under the orange trees often find their clothes sticky from the nectar which has dropped on them when the branches are shaken. *Gleanings on Bee Culture* gives the yield of honey, mainly derived from this source, as being, in that country, 40 to 250 lbs. per colony, according to the character

of the flow and the skill of the bee-keeper in keeping the colony strong enough to cope with the supply of nectar.

* * *

There are enormous differences in the fat values of various kinds of milk, the variation being from 190 calories per lb. in the case of mare's milk to 930 calories per lb. in the case of that of the reindeer. In the former there is only a little over 1 per cent. of fat, the lowest on record, while reindeer's milk contains over 17 per cent., the highest. Woman's milk contains the highest percentage of sugar, that of reindeer the least. That of the sheep is noticeable as containing a considerable amount of fat as well as a fair proportion of sugar. The milk of the reindeer also contains the highest percentage—8.5 per cent.—of casein (cheese), as against under 1 per cent. in the case of the ass. Camel's milk has the same fuel value as that of woman, but contains less sugar and more casein.

* * *

About 80 miles off the east coast of Madagascar is the little island of Juan de Nova. Its area is only about 1,000 acres, and its principal occupants are crows and wild cats, added to in the evenings by seagulls. Of recent years deposits have been worked of what was once guano, derived from the latter source, but which now, as the result of constant water washing, is a more or less dark brown earth containing no soluble salts. But from the action of the soluble phosphates washed from the overlying guano, the limestone immediately beneath this product has been converted into a brownish calcium phosphate, retaining the texture of the rock, but quite deficient in carbonate of lime. *L'Engrais* states that this phosphate contains 35.56 per cent. of phosphoric acid, 48.63 per cent. of calcium oxide, 1.75 per cent. of magnesia, 1.27 per cent. of organic matter, 0.56 per cent. of sulphuric acid, 7.97 per cent. of combined water, and 4 per cent. of water driven off at 110 deg. C.

* * *

Manurial experiments in connection with coconuts have been carried out in Ceylon since 1913, and the results for each year up to and including 1921 are published in *The Tropical Agriculturist* for June last. A variety of manures were experimented with, including sulphate of ammonia, ground nut cake, steamed bone meal, sulphate of potash, "Mendis potash," "mineral mixtures," lime, mixed manure, organic mixture and mulches of husks. Various tillage treatments were also combined with the manuring. The results point to crops of coconuts being largely dependent as to numbers upon the rainfall of the previous 18 months, a shortage of rain meaning a poor crop, the size of the nuts also varying upon the extent of the rainfall. Ploughing and harrowing appeared to help to maintain crops in a dry season. Although lime, both in heavy and light soils, gave markedly increased crops, its application led to smaller nuts and consequently less copra yield than would be expected from the extent of the crop. Steamed bone meal maintained crops and size of nuts, but in general the size of the nuts was only improved by the application of nitrogen, preferably organic.

THE WEST INDIAN CLUB.

The Hon. William Morrison Entertained

The Hon. William Morrison, a member of the Privy Council of Jamaica, was entertained by the members of The West Indian Club at dinner on Tuesday, September 12th.

Mr. E. A. de Pass, a member of the Committee, who presided, in proposing the toast of the Guest, said that most men were prouder of their vices than of their virtues, or, at any rate, made more boast of them. He therefore employed a private enquiry agency to find out what the vices of William Morrison were. He drew blank, for apparently their guest had none—now. Perhaps he used to have some, but the Recording Angel had evidently wiped them off the slate. It was true that Mr. Morrison was a Scotsman and a lawyer, but he would not dare to joke about that. Their guest had done good work in Jamaica politically, and was also what the Americans would call a "cricket fan." He had done more than any two men in Jamaica to keep the national game, on which so much of the national character is based, a living and thriving issue. Mr. Morrison's father was one of the most highly esteemed residents in Jamaica, a man of whom any son might well be proud.

Most of them would remember a poem of Leigh Hunt regarding an Arab who dreamed that the Recording Angel was going around taking down from all and sundry the claims they made to a place in Paradise with extra special hours. Poor Abou ben Adhem read the various claims of his neighbours, and his heart sank into his boots as he could think of no special claim to beatitude. So when his turn came all he could say to the angel was, "Write me as one that loves his fellow-men." Then the angel's list appeared to him, "And lo! ben Adhem's name led all the rest." Mr. Morrison was a man that loved his fellowmen, and so he was a jolly good fellow.

Mr. Morrison, in reply, said that he was, of course, immensely gratified at this mark of esteem and friendly feeling by the members of The West Indian Club, and it gave him especial pleasure to see his dear old friend, Mr. E. A. de Pass, in the chair—he was, indeed, a lifelong friend of the West Indies. He, Mr. Morrison, had been a member of the Club for twenty years, and looked back to the happy associations then formed, and to the many activities of the Club, not only in a social sense, but towards cricket, rifle shooting, and other matters which were of the utmost importance to

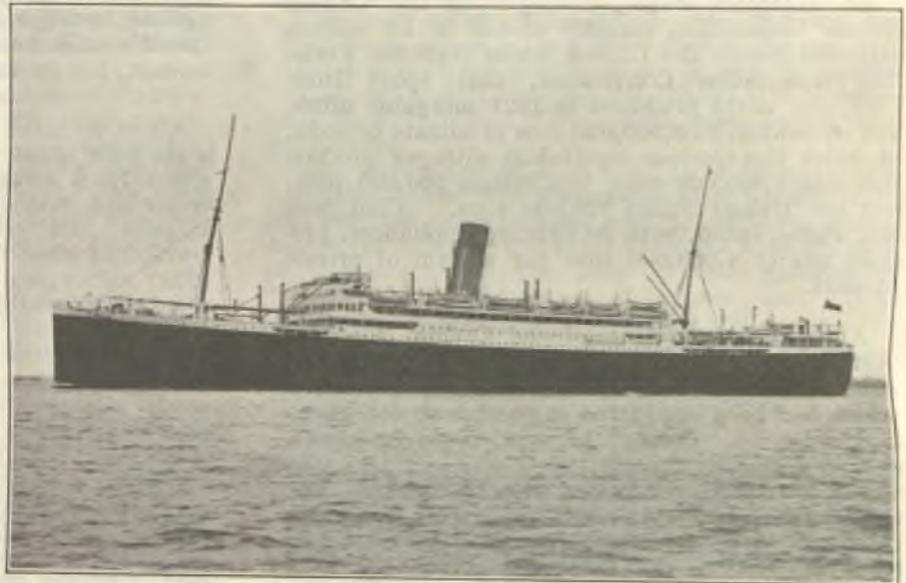
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"ORCA'S" WEST INDIAN TOURS.

The Royal Mail Company's New Steamer.

The R.M.S.P. *Orca*, which is depicted on this page, is, as already announced, to make two pleasure cruises from New York to the West Indies during the coming winter, starting on the 24th of January and of February next. Her itinerary will embrace Colon, Jamaica, Trinidad, Barbados and Bermuda.

Of 16,000 tons gross, R.M.S.P. *Orca* is now being completed at Belfast. The Royal Mail Steam Packet Company will also offer special facilities for reaching Bermuda from New York during the winter months.



The R.M.S.P. "ORCA."

This splendid vessel of 16,000 tons is to make two pleasure cruises to the West Indies during the coming winter.

(Continued from the preceding column.)

the West Indies. The Club was still full of life and vigour, and it might well be said—

"Thus far its fortunes bear an upward course, and it is graced with wreaths of victory."

Mr. Wood's visit to the West Indies and the Report was uppermost in their minds, and so he would just say a word about it. He felt that all parties and all sections in the West Indies would be pleased and satisfied therewith, although he had no doubt, in so far as Jamaica was concerned, certain desirable amendments would be put forward for the favourable consideration of the Imperial Government.

Mr. Morrison said he looked forward with open confidence to the present and future of the West Indies, as a whole, despite hurricanes, droughts and earthquakes, for the people of those islands, of all classes and colour, were full of confidence in themselves and in the vast resources of all those islands. All that was wanted was co-operation and a more pronounced spirit of pulling together.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

By Air to Nassau, Bahamas.

The flying-boat *Sampeio Correia* has visited Nassau on her way from New York to Brazil. This, says the *Nassau Guardian* of August 22nd, is a reminder of the evolution of air travel in the past few years, and the extraordinary development which has made possible the annihilation of distance. For several seasons seaplanes from Florida have frequently visited Nassau, and last winter the wonderful flying-boats of the Aeromarine Airways—the last word in passenger seaplanes—gave an almost regular service, increasing the Island's travelling facilities considerably and advertised Nassau as being within easy reach of the American coast. A new air route is inaugurated by this trial flight of Lieut. Hinton and his party, and it is gratifying to be able to record that in linking up the two Americas they will also have forged a link between the Bahamas, the most northerly of the British West Indies, and Trinidad, the most southerly island of the historic group which stretches between the coasts of the two continents.—The new Colonial Hotel is rapidly rising from the ashes of its predecessor, the proposals to make the site on Bay Street a park having fallen through.—How beneficial are the activities of the Marine Products Board was shown when the Bight of Acklins was reopened last month, after having been closed to sponging since 1919. Already, says the *Nassau Guardian*, the market is overflowing with excellent sponge from that area, which produces a variety for which there is a particularly good demand.

Good Crop Weather in Barbados.

The weather, says the *Advocate* of August 29th, has continued favourable for the crops, and the canes everywhere are healthy and vigorous.—The *Advocate* attributes to a lack of balance in an attenuated House of Assembly such "stunt legislation" as the rejection by a narrow majority before the House adjourned of the proposal to exempt the Governor's salary from Income Tax, and our contemporary hopes that before the Bill is finally passed, the exempting section will be restored.—The water situation has not much improved in spite of the rains.—Alastrim, which last year attacked Jamaica, and has recently broken out in the Roseau and Grandbay districts of Dominica, has been added to the list of diseases to be dealt with under the Quarantine Act. At a meeting of the General Board of Health on August 23rd, Hon. Dr. Hutson, M.B.E., who presided, stated that he had written to the Executive Council asking that Alastrim be made a notifiable disease in the same way as small-pox. As regards leprosy, it was decided to recommend an amendment of the Lepers' Act so as to provide that isolation should automatically follow notification, instead of the present procedure which only allows a Magisterial enquiry to be held when a notified leper has been found in a public road or place.—The Agricultural Society have decided upon the publication of a journal, and the holding of an Industrial Exhibition at Queen's Park on December 13th. At their meeting on August 25th, Mr. J. A. Bovell was presented with a small crucible and basin of platinum as a token of appreciation of his services in connection with sugar cane experiments.

British Honduras.—Sir E. Hutson's Holiday.

The Governor, Sir Eyre Hutson, has left the colony on leave of absence.—The *Clarion* records that Sydney, son of the Hon. Sydney Cuthbert, was one of fifteen successful candidates at the Special Entry Examination for the Royal Navy. He was third on the list.

Mr. R. Nosworthy in Dominica.

His Honour R. Nosworthy, who is acting as Administrator of Dominica, has been appointed a member of the Executive Council of the Leeward Islands for such period as he holds that position.—The Hon. H. A. Allford Nicholls, C.M.G., Senior Medical Officer, has been appointed Principal Medical Officer to Dominica.—A slight epidemic of Alastrim, the disease which attacked Jamaica last year, has broken out in the island, but according to the *Dominica Guardian* of August 17th, has not spread beyond the Roseau and Grandbay districts.

A Grenada View of Federation.

In a leading article in its issue of August 11th, the *West Indian* says: "We are opposed to the suggestion of a Trinidad-Windward Islands partnership, but we are not incurably opposed to the proposal. It is not impossible for a scheme to be devised to suit us admirably; we only doubt that any proposal from Trinidad will go far enough to suit us. This is a case for hard thinking. The people must decide. They must explore and examine the whole ground. It is a case of balance of advantages. It is always better to think of the things we have and may lose, more than of the things we may gain. Grenada has a great many things to lose, not only commercially, but socially, in the strict sense of the word, and should think hard on this tremendous question."—Mrs. Smith, wife of Mr. T. E. Noble Smith, of Nanganfoix, St. Andrew's, died on July 24th, at the early age of 35.

Regrading Jamaica Officials' Salaries.

Two hurricanes, which threatened Jamaica at the end of August and the beginning of September, fortunately passed without affecting the island, after, in the latter case, approaching to within 350 miles of the coast.—The Commission appointed by the Governor at the end of last year to enquire into the emoluments of public officials have now reported. *Inter alia*, they recommend that the continuation of the office of Protector of Immigrants is no longer justified, and that the appointment of a Deputy Director of Public Works appears unnecessary, the Commission deprecating the creation of Deputies in any Government Department. The same applies to the post of Second Assistant to the Attorney-General. The Commission further think it undesirable that the salaries of judicial officers should be fixed on an incremental basis. The amount required to carry out the Commission's recommendations during the current year is £13,819.

Mr. C. Lyon Hall has declined the office of Custos of Portland, to which he had been nominated by the Governor.—A deputation consisting of Hon. Rev. A. Barclay and Mrs. Barclay, Hon. Rev. G. L. Young, Hon. D. T. Wint, Mr. L. O. Robertson, Mr. W. E. Wilson, and Mr. S. M. Roche, who have returned after a visit of inspection to the Isthmus of Panama, emphasise in their report the loyalty of the British West Indians there, stating that "it was an inspiration to hear the National Anthem sung by more than two thousand people in a Spanish American Re-

public." Their observations bore out the fact that economic conditions on the Isthmus were not satisfactory and were likely to become worse. There was a good deal of unemployment among West Indians, although investigation showed that complaints as to the unsympathetic attitude of the British Legation were not justified.

St. Vincent and the Agricultural College.

The Sentry (August 4th) sees in the establishment of the West Indian Agricultural College at Trinidad another indication of that colony's progress towards the position of headquarters of the Windward Islands at last, if not of the lesser Antilles.—The visit of the Governor, Sir George Haddon Smith, was being eagerly awaited in view of the important decisions regarding representation to be arrived at following the recommendations of the Wood report.

Tobago's Steamship Service.

It is reported, states Mr. Robert S. Reid, writing on August 29th, that a committee of experts in Trinidad is discussing the purchase of a steamer to replace the *Beliza*, and to advise regarding the future of the coastal service, but Tobago is not represented on the Committee.—H.E. the Governor was expected at Scarborough on September 5th on a short visit. The Governor has the reputation of being keenly interested in all parts of the colony alike, and desirous of getting opinions at first hand, and no doubt Tobago will be consulted before decisions are made.—A public meeting was to be held at Scarborough on September 4th for the purpose of moving a resolution gratefully accepting the offer by the Secretary of State of an elective representative to the Legislative Council. Mr. John Murray, of Kendal Place, was to occupy the chair.—The weather has been showery, about nine inches of rain having been registered in this district during the month. There is no cause for complaint, but the Leeward district needs more rain, and the growing crops are causing some anxiety. The cacao crop looks most promising, and good pickings are expected by the end of September. The larger estates are keen on producing a fine fermented cacao, but the trouble thus far is that Trinidad buyers like to get it to improve their bulk buying, but will pay no better price for it. The total output (say 5,000 to 6,000 bags) is hardly sufficient to attract the large buyers abroad.

The Trinidad Agricultural Bank Scheme.

The local Agricultural Credit Bank Committee, of which Hon. R. G. Bushe, C.M.G., is chairman, has adopted the report of a sub-Committee consisting of the Chairman, Hon. A. H. Cipriani, Mr. W. J. Messervy, Mr. J. B. Connell, and Mr. T. P. Mackenzie. Mr. Bushe stated that under the scheme which was being put forward, the only possible occasion on which the general taxpayer might be called upon to contribute at all towards the repayment of loans to be raised was if the agricultural industries of the colony were to be practically wiped out. A lengthy discussion having taken place at the Committee's meeting, on August 23rd, on the Chamber of Commerce's proposal that the bonds should be exempt from income tax, upon which decision was deferred, the Committee resolved "That the bank should be administered by a board of management composed of

a chairman and four members to be appointed by the Governor, the latter being persons representative of the interests of both agriculture and commerce; that the chairman should be appointed for five years, that two of the other members should be appointed in the first instance for two years and their successors subsequently for five years, and the other two members in the first instance for four years and their successors subsequently for five years—both chairman and members being eligible for re-appointment." A sub-Committee was then appointed, consisting of the Chairman, the Hon. A. H. Cipriani, and Mr. Nowell, to consider the possible extent of the proposed bank's operations initially and after development, and the Committee then adjourned until the following Wednesday.—The officer in charge of the Trade Commissioner's office has been informed that there is no possibility of an appointment being made to fill the vacancy of H.M. Trade Commissioner for the next three to four months.—The Chamber of Commerce has appointed a sub-committee, consisting of Mr. A. V. Stollmeyer, Mr. D. McBride, Mr. J. Forbes, and Mr. T. Geddes Grant, to consider the question of a West Indian Trade Commissioner or other representation in London. On this subject, at the Chamber's meeting on August 24th, Hon. A. H. Cipriani said that he could not see what advantage could accrue to the colonies from the appointment of a Trade Commissioner. What the West Indies needed was representation, and it seemed to him that they must have always a very great deal more to hope for from The West India Committee and the President of the Associated Chambers than they could secure through a Trade Commissioner. Mr. Stollmeyer differed from this view, saying that, whilst their sugar and cacao might not reap any material benefit from such an appointment, publicity was of great importance to the future economic development, especially of minor industries. After quoting with approval statements in THE WEST INDIA COMMITTEE CIRCULAR on the subject, Mr. Stollmeyer went on to say: "The maintenance of a large exhibition room in the Strand would entail an expenditure which possibly is not warranted at present, but it appears possible that an efficient organiser could obtain equal results at smaller cost by exhibiting samples of West Indian produce for short periods in a number of different centres, thus creating a permanently touring exhibition. For instance, use could be made of the fact that vacant shops can often be rented for a short period for a very low figure. A West Indian exhibition for one week in each of six larger suburban centres would possibly attract more attention of the kind required than a similar exhibition in the heart of London, especially if reinforced by a lecture to the Chamber of Commerce and a popular lantern lecture by the Trade Commissioner in each place during the period of the exhibition. In this connection it may be added that it is far easier to obtain publicity in the provincial Press than in London. This exhibition would, of course, be carried to every part of the United Kingdom in turn, and there need be very few weeks in the year when it is not being shown somewhere."—Mr. G. Perry Lewis, the Postmaster-General, was the recipient of a presentation from the staff of the General Post Office on August 22nd, on the occasion of his departure to take up a new appointment in Nigeria.—The Hall, an historic residence in Port of Spain, was destroyed by fire on Sunday, August 20th. The old home of the Warner family, the Hall was sold fifty years ago to Mr. Carlos Siegert. At the time of the outbreak it was in process of conversion to an hotel.

BRITISH GUIANA IN 1921.

Record of a Lean Year.

In his annual general report on British Guiana for 1921, Mr. G. Ball Greene states that trade throughout the colony was subjected to severe depression during the year. The public revenue of the colony was consequently affected, the receipts being less than those of the previous year by £179,641. The year's expenditure was £1,795,846, as compared with a revenue of £968,947; but on the 31st December, 1921, the colony was left with a surplus of assets over liabilities of £215,230. The Public Debt at the close of the year amounted to £1,170,238.

The total value of the imports for the year (including transit trade) amounted to £3,487,608, being £1,691,878 less than that of the imports of 1920. The average annual value of imports for the past five years was £3,872,949. Exports, which were valued at £3,424,490, including transhipped goods amounting to £420,104, represented a decrease of 44.25 per cent. as compared with the previous year's transactions. Although the quantity of sugar exported was greater than in 1920 by 24,505 tons, the price fetched showed a falling-off of £2,088,839, the figures for 1921 and 1920 being 108,270 tons valued at £2,104,144, and 83,765 tons valued at £4,192,982 respectively. The average yield of the preceding ten years was 104,069 tons. Last year 63,420 acres were under sugar-cane. Of this area, 37,240 acres were planted with the D.625 variety of cane, and only 2,337 acres with Bourbon. Rum exports amounted to 2,228,164 proof gallons, valued at £364,231, exceeding the quantity shipped in 1920 by 455,994 proof gallons.

The acreage under cacao has fallen to 1,176 acres, and all the cacao produced last year was used locally in the preparation of chocolate and confectionery. The total yield of rice was 49,905 tons of paddy, equal to 29,943 tons of rice. Coco-nuts are now planted on 26,321 acres of land. The export of nuts was 2,760,000, as compared with 2,621,000 in 1920, while in addition 783 cwt. of copra and 15,934 gallons of coco-nut oil were exported. By far the greater number of the nuts grown, returned by the growers at 15,648,646, were used locally for the manufacture of oil or directly as food. There is a very wide area of land suitable for the planting of coco-nuts, on parts of which extension of such planting is being carried on, the result of which should be a great increase in the yearly crops. The cultivation of limes was somewhat increased during the year, about 1,100 acres being now occupied by the trees. The small factory for the preparation of concentrated lime-juice, erected by the Government at Onderneeming, Essequibo, has continued its work; 439 cwt. of citrate of lime, 4,175 gallons of lime-juice, and 544 gallons of essential oil of limes were the products exported during the period under review. There are large areas of land suitable for the raising of cattle. The number in the colony, including 38,980 estimated to be on the hinterland savannahs, was 122,886 in 1921. The raising of cattle on the savannah lands of the Rupununi District is now an established industry, but is capable of considerable expansion if money were forthcoming. A railway from Georgetown to join the Brazilian systems would pass through the centre of the colony along its greatest length, and, besides thus opening up a very large tract of country, might eventually lead to the capital of the colony becoming the entrepôt for shipping goods in transit from practically the whole

of the South American continent. A cattle trail has been constructed, and is being maintained by the Government between Takama on the Berbice River and Annai on the Rupununi River, a distance of 180 miles, with a branch line to Arakwa, a place approximately opposite Wismar on the Demerara River. During 1921 a trace was made of a further branch line starting at a point on the trail 18½ miles east of Arakwa, and connecting at Hyde Park with the public road running along the east bank of the Demerara River. By June last 2,472 cattle had already been brought over the trail, and it is understood that some 1,400 animals will travel to Georgetown in the latter part of the present year after the rains.

The great development in the diamond industry is reflected in the number of claim licences issued. Of 360 in existence at the end of the year, 244 were issued during 1921. The output rose from 233,456 stones weighing 39,362 carats in 1920 to 507,200 stones weighing 102,603 carats, of a value, as declared for export purposes, of £329,847.

A contour survey has been commenced of the country above the Great Falls on the Demerara River, with a view to ascertaining the possibility of damming the falls and creating a reservoir of such capacity as will enable a good permanent head of water to be maintained for any hydro-electric works that may be installed. An attempt was made during the year to carry out an aerial survey, but the experiments proved

The address of THE WEST INDIA COMMITTEE on and after September 29th, 1922, will be:

The West India Committee,
14, Trinity Square, London, E.C.3.

clearly that a flying-boat would be of little use in British Guiana. What is wanted is a seaplane which can rise rapidly from the water, and it is hoped that future experiments may be made with a craft of that kind.

An unusually small number (473) of immigrants embarked for India on the return immigrant steamship of the year. Immigration from Barbados, which showed promise of development, was also interrupted in July for the balance of the year, chiefly by the depression of the sugar industry.

During the past two years several sugar firms have been investigating the possibilities of producing locally motor fuel from waste molasses, and, as a result of the experiments made, certain formulae for the manufacture of alcohol motor fuel mixtures have been secured. It is claimed that these conclusively prove that a high-grade motor fuel can be manufactured in the colony from sugar-cane molasses. One of these firms is now preparing to manufacture power alcohol on a commercial scale, and the Government is assisting the enterprise by temporarily exempting the industry from taxation.

It is satisfactory to note that tourist traffic to the colony shows signs of increasing, and that more and more visitors are taking advantage of their presence in the colony to see the Kaieteur Waterfall.

The following appointments affecting the British West Indies have been made recently by the Secretary of State for the Colonies:—

Mr. P. J. A. Hamilton, Auditor, British Honduras.

Miss M. Jacobs, Charge Nurse, Bahamas.

Miss D. M. White, Charge Nurse, Bahamas.

SOME COMPANY NOTES.**Trinidad Central Oilfields, Ltd.**

Mr. Alexander Duckham, presiding over the sixth Annual General Meeting of this company, on September 11th, after reviewing the accounts (which were summarised in last CIRCULAR), said that owing to a combination of circumstances, the trading account was unsatisfactory. Everything depended upon production. The quality of their oil was such that with even a very moderate production, as compared with the production of other oil concerns, substantial profits could be made. For reasons explained in the circular of May last, so far as the winning of oil was concerned, a large part of their drilling operations had been unproductive. Costs of materials and wages had increased some 50 per cent. during the early part of the period under review, and the fact that they had had to conduct operations at some distance from headquarters had added to the cost of oil produced at these locations, while the prices of petroleum products had fallen materially.

After describing various disappointments which they had met with in the course of their drilling operations, he went on to say that it certainly now appeared that they could go ahead with a regular deep-well programme, and their target there was to bring in two wells per month, making with the shallow wells four per month, which would be a very fine performance if the staff could achieve it. In view of the fact that during the last twelve months they had not brought in a single large producing well and only a few small producers, it was satisfactory that their production was maintained. The whole question of production had been most tantalising, because it only required such a small production to enable them to earn a profit. It also had to be borne in mind that with increased production of oil they got increased supplies of gas, and therefore one of their considerable expenses—fuel oil—would automatically be reduced. Their fuel oil bill was equivalent to a 2 per cent. dividend on the capital.

He was glad to be able to say that their monthly cable report for August showed a 20 per cent. increase in production for that month, and the anticipation for September was a 50 per cent. increase, so that he hoped that was an indication of a permanent move from the dead and low level at which they had stuck for so long a time. Furthermore, expenditure was falling substantially as various subsidiary and auxiliary works were being concluded.

After stating that the Government had notified them of their intention to grant them a lease over 60,000 acres out of the total of 70,000 acres over which they at present had prospective licenses; that their oil tanker should be ready in November or December; and that the board had accepted his offer of an option granted to him, free of cost, over some 1,300,000 acres in Venezuela, the chairman concluded by thanking the staff for their work.

Direct West India Cable Co.

In their report for year ended June 30th, 1922, the Directors of the Direct West India Cable Company, Ltd., state that the net result of the year's working is a credit balance of £15,964 17s. 8d., as compared with £14,601 7s. for the previous year. The balance to credit of revenue account brought forward from last year is £96,050 13s. 2d., and with the above £15,964 17s. 8d. makes a total of £112,015 10s. 5d. Deducting £24 8s. 6d. expended on repairs, and £1,800 interim dividend of 3 per cent., free of income tax, paid in March last, there remains to be dealt with £110,191 8s. 11d. Of this sum the Directors propose to distribute a further dividend of 3 per cent., free of income tax, making the total distribution for the year 6 per cent. This will absorb £1,800, leaving to be carried forward £108,391 8s. 11d., subject to Corporation Profits Tax.

PERSONAL NOTES.

SIR LESLIE PROBYN, Governor of Jamaica, has arrived in London, and is staying at the Langham Hotel.

MR. C. J. THOMAS, Chief Justice of St. Vincent, is in England on leave of absence. Mr. Thomas has administered for a long period the Government of the colony.

MR. AND MRS. ROBERT CRAIG, still faithful to Jamaica, where they resided for so many years, leave for that island in the *Motugua* on October 3rd, and will spend the winter at Mandeville.

MR. G. F. HUGGINS, O.B.E., who has been paying a short visit to this country, has left for the United States on his way to Trinidad. Mr. G. M. Frame, a member of the Executive Committee, has also left for America.

MR. E. R. DARNLEY, Assistant Secretary and head of the West Indian Department at the Colonial Office, and a Governor of the West Indian Agricultural College, was the guest of the West Indian Club at a dinner last night, over which Mr. George Moody Stuart presided. A report of the proceedings will be published in next issue.

MR. CECIL CLEMENTI, C.M.G., has been appointed Colonial Secretary of Ceylon. Mr. Clementi was for nine years Colonial Secretary in British Guiana, during which period he administered the Government of the colony on various occasions. He and Mrs. Clementi left for Paris yesterday by air to rejoin their children, and sail from Marseilles for Colombo on October 20th.

MR. L. LEWTON BRAIN, who, we regret to state, died at Kuala Lumpur on June 24, of heart failure, after an attack of malaria, was well known in the West Indies, having been appointed Mycologist and Lecturer in Agriculture to the Imperial Department of Agriculture for the West Indies in 1903. Since 1910 he had been Director of Agriculture in the Federated Malay States, having meanwhile held the post of Assistant Director in the Division of Physiology and Pathology in the Experiment Station of the Hawaiian Sugar Planters Association.

THE death of Mr. Alfred John Hirsch, which took place on September 1st, robs British Guiana of a staunch friend and the West Indian Club of a popular member. Latterly Managing Director of the firm of J. K. Gulland, Ltd., diamond merchants, he had been in the diamond business for over forty years, principally in connection with rough diamonds and carbons (black diamonds) from Brazil. He received some of the first diamonds discovered in British Guiana, and of late years he took a great interest in the development of the diamond business there. One of the oldest supporters of the West Indian Club, he rarely missed attending the social functions of that body, even when his health was failing. A sterling good fellow, he will be greatly missed.

THE GOVERNORS OF JAMAICA.

BY FRANK CUNDALL, F.S.A.

XII.—William, 2nd Earl of Inchiquin.

William O'Brien, second Earl of Inchiquin, the son of Murrugh, sixth Baron and first Earl, was born about 1638. He was brought up in the London house of his father's friend, Sir Philip Percival. In December, 1670, Sir John Coventry, who had on a question of taxing the playhouses ironically referred in the House of Commons to the King's amours with the actresses, was waylaid by a troop of soldiers, commanded by Sir Thomas Sandys and Lord O'Brien, as he was called in his father's lifetime, who cut off his nose. The incident is more than once referred to in Marvell's poems.

Most of O'Brien's early life was spent in company with his father in foreign military service, in France and Spain. On their way to Lisbon in 1659-60 their ship was attacked by an Algerine corsair, and Lord O'Brien lost an eye. He and his father were taken prisoners to Algiers, and there he remained as a hostage for some time.

In 1674, the year in which he succeeded to the earldom on his father's death, and was made a Privy Councillor, he was appointed Captain-General of the King's Forces in Africa, and Governor and Vice-Admiral of the Royal citadel of Tangier, ceded by the Portuguese to Britain as part of the marriage portion of Catharine of Braganza; and this post he held for six years.

He welcomed the Prince of Orange in 1688, and in the following year he and his eldest son were attainted by the Irish Parliament of James II., and their estates were sequestered. He appealed to arms, but was defeated and fled to England. He was present at the battle of the Boyne, and accompanied William III. to Dublin.

In 1690 he was appointed Governor of Jamaica. On going to take up office he was allowed £500 in lieu of fifty tons of baggage, and also passage and victuals for seventy-five menial servants. It is interesting to note that on his journey he drew half-pay salary, i.e., at the rate of £1,000 a year. He sailed in a squadron commanded by Commodore Wright. On their way out they touched at Madeira.

After escaping dangers by sea and infection from sick soldiers, he, accompanied by Lady Inchiquin, arrived at Port Royal on the 31st of May, 1690, in H.M.S. *Serra*, the same ship that was "forced over the top of many houses" in the earthquake of two years later.

A special meeting of the Council was held on the same day at Port Royal, at which he was sworn in. It is interesting to note that his name is throughout the manuscript Council minute-book spelt phonetically *Insiquin*, while the family name is spelt indifferently *O'Bryen* and *O'Bryan*.

In January, 1689-90 the Council had written home recommending that the Governor's residence might be fixed at St. Jago de la Vega, "the most convenient place." Both King's Houses at Port Royal and Spanish Town were in bad repair at this

time. Tradition has it that the old house known as Eagle House, behind the Public Hospital in King Street, Spanish Town, became the residence of the new Governor. Its local name, from the remaining eagle that surmounts one of the gate-posts, is Eagle House, or popularly John Crow House, John Crow being the popular designation of the vulture of Jamaica (*Cathartes aura*). The residence of the Governor, either Eagle House or some other, was the property of Samuel Bernard, and the Council paid him £250 a year rent.

In June, 1690, the Council sat as an Appraisal Court in the case of the Dutch ship *S. Jago de la Victoria* (Captain Thomas Daniell), which had been condemned by a Court erected by Sir Francis Watson. It was recorded that:

"Sr. Francis Watson and Coll. Ballard were called in and the doors set open and they being made acquainted with the former resolution, Capt. Daniell's Attornies proceeded to open the matter showing the ship came from Cadiz to Puerto Velo in service of the Assiento, that she had a Spanish Commission and wote Spanish Colours, had Licence from Sr. Francis Watson to buy provisions. Afterward was brought in by the men of warr by Order of Sr. Francis and being seized was proceeded against in a Court of Oyer & Terminer erected for that purpose by Commission from Sr. Francis, then they came to matter of Law & alledged yt. that Sr. Francis was not Governour, further yt. if he had been Govr. there was a positive instruccoon not to erect any new Court & lastly coming to matter of fact that the things bought were not for merchandize, but only necessaries and comprehended within the Treaty of Peace made at Madrid. Sr. Francis Watson's Councill arguing much to the contrary, at last they withdrew as before. After serious consideracon of the premises it was resolv'd yt. Sr. Francis Watson was not Governour, that if he had been Governour, the instruccoons did not give him power to erect any such Court and therefore the whole process was coram non judice and the judgement in itselle void from the beginning, but if that Court had been Lawfull they are of opinion that there was not sufficient to condemne her, there appearing to them nothing in the very papers of particulars product from the Jury bought for merchandize nor anything but what in all reason is comprehended within necessaries for their voyage and allowable according to the Articles of Peace concluded on at Madrid, whereupon the Gent.—being called in they were acquainted with the former resolution.—"

On the 6th of July, *Inchiquin* sent home an interesting report on the state of affairs:—

"Earl of Inchiquin to Lord of Trade and Plantations.
"After escaping great dangers of the sea and a malignant fever brought on board by seventy or eighty soldiers embarked at Portsmouth and Plymouth, I arrived here on the 31st May with the convoy, which was very welcome owing to the scarcity of provisions in the island. I find the animosities here far greater than I imagined, not due to the late transactions, but to fifteen or sixteen years' standing of turbulent and pernicious advisers, which would have put all into an 'unqueneionable' flame here, had not the prudence of some Governours prevented it, particularly Lord Carbery [Lord Vaughan] and Sir Thomas Lynch. Since the disease has been of some long duration you will not expect a sudden cure, but I hope I have allayed it already and in due time shall remove it.

"You will believe the distraction to be great when the Courts of Judicature have fallen nearly two years. People have lived without law or justice, to the great encouragement of malefactors and to the strengthening of pretensions to martial law. Such exorbitances have been committed as I believe were never heard of, but now that the Courts are open again the offenders will be brought to condign punishment, though all that they are worth will never make amends for the mischief they have done. Great inconvenience has arisen from Sir Francis Watson's assuming the title of Governor, against the express words of the patent from this Government, and erecting a court of judicature, which is forbidden even had he been Governor; but for this last I think the money of the Dutch ship was the great temptation. The case was retried, according to my instructions, and the ship acquitted.

"On my arrival I received news of a wreck in the Texanillas, about forty leagues to South West of this Island, which renders Port Royal very thin of seamen. The weather has been bad and little treasure has been recovered so far, but when it turns calm the ship may be turned to account. Not that this Island is likely to be a gainer for I have no ship to send to protect those at work there; the *Drake* being returned a fortnight since hardly able to float. She has since been found on survey to be irreparable for less than £2,000 or more than her first cost. The Island has therefore fitted out a sloop, which lately went to Caymanas for turtle, where there were several of our craft lying. There Laurens, the great pirate of Petit Guavos, engaged the sloop, and the rest of the craft escaped. The firing was heard continuously till eleven at night, and as this was a month since and nothing has been heard of the sloop, we conclude that Laurens has taken her, he having two men against one in his *barca longo*. We have therefore no ships now except the *Swan*, which is so bad a sailer that she is little better than nothing. If she should fall ten leagues to leeward I never hope to see her again. The *Drake* was a smaller ship but being a prime sailer she kept the French in awe, so I must beg for a couple of prime sailers if they be only a fifth and a sixth rate, or the North side of the Island will inevitably be destroyed. Captain Spragge is so good a pilot and has done such good work that if he were continued in these seas it would give great satisfaction. We have heard nothing of Admiral Wright, but knowing his ships to be well manned have little doubt of his succeeding.

"The *Swan* sailed to Cartagena to-day (the only place to which she can go from this Island with any hope of coming back again) with some letters from the Spanish Ambassador for the release of certain English prisoners. She has a small ship of the Assiento with negroes under her convoy. The African Company has sent but one ship hither, which brought three hundred negroes who were sold at 26*g* a head. I hope the Company will give no more occasion for your being troubled with such clamours as were heard of late. I must prepare you for an ill account of the revenue, and of the receiver, who has been suspended by the Council for quite sufficient reason. I have not sworn him of the Council, though he was named one of the new members. There are some present members who, I think, when you hear of their proceedings, you will not think fit to be continued.

"Signed. INCHQUIN."

In August objections were raised to fourteen payments made by Sir Francis Watson "as governor," and all but three objections were allowed. They

were, many of them, arising out of irregularities on the part of Albemarle.

In February, 1690-91, the Governor told the Council that he had suspended Sir Francis Watson from the Council and had appointed his own son James O'Brien in his stead.

In this same month the Governor and Council publicly stated that if any persons would advance money towards the maintenance of two sloops to cruise about the island for its protection, they would "do their utmost endeavour to [have] them reimbursed by the next Assembly." They also resolved that if seamen would not serve willingly they should be "prest"—volunteers to get £2 5*s*. per month, pressed men £1 15*s*. Nine ships which had been in harbour for three months begged for a convoy home. The *Quaker*, ketch, being "by her ill sailing of no use to the island, for their majesties' service," was appointed for the purpose.

The buccaneers had been for years a constant source of annoyance to Jamaica, and requests had often been sent home for additional ships for harbour and coastal defence.

Much damage was caused by the raids of French men-of-war on the outlying parishes, especially St. Elizabeth and St. Mary, and compensation was ordered to be paid to the sufferers, including Anna Vassall, Sarah Fleming, and Richard Markes, of St. Elizabeth; John Hunger, of St. George's; and Humphry Knollis, of St. Mary.

In March it was decided to send an expedition against Petit Guavos. Colonel O'Bryen, who was put in command, was successful in doing serious damage to the settlement. In May the Governor and Council, being destitute of provisions for the ships, asked the merchants to give the necessary supplies on their recommending the bill home to the Admiralty for payment.

By June the *Catapatch* had been captured by the French.

(To be continued.)

WANTS.

Small "Want" advertisements will be accepted for publication under this heading at the rate of 3/6 for three lines and 1/- for each additional line.

A COFFEE OFFICER is required for the Uganda Government Service, to be responsible under the Director of Agriculture for promoting the extension and improvement of coffee production in the Protectorate. Sound knowledge of the cultivation and treatment of the coffee plant and of the preparation of coffee for the market essential. Costa Rican, Jamaican, or Indian experience preferred. Salary £500 per annum, with free quarters, or an allowance in lieu thereof, and free first-class passages. Temporary engagement for one tour of from 20 to 30 months' residence in the first instance. Leave according to East African Regulations. Non-pensionable. Applicants should apply to the Assistant Private Secretary (Appointments), Colonial Office, Downing Street, S.W.1.

ENGINEER seeks position of responsibility; has had considerable experience in works management of large Marine Engineering Works; age 38, married. References and full particulars on application.—Write "W. B.", c/o The West India Committee Circular 14, Trinity Square, London, E.C.3.

PRODUCE MARKETS SUMMARY.

Telephone—
Central 6642.
Telegrams—
"Carib. London."



15, BETHING LANE,
LONDON, E.C. 3.
Sept. 26th, 1922

BANK RATE. 3 per cent. as from July 18th.

EXCHANGE. Value of the £ Sterling.

	Sept. 12th	Sept. 26th		Sept. 12th	Sept. 26th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
On U.S.A. ...	19 4	18 2	In Spain ...	1 2 11	1 2 10
.. France	2 8 0	2 5 3	.. Germany	225 0 0	305 0 0
.. Belgium	2 8 0	2 8 7	.. Austria	Nominal	Nominal
.. Italy	4 1 0	4 2 9	.. Holland	19 0	18 10

The intrinsic value of the gold sovereign is 41 ls. 11d.

SUGAR. During the past fortnight the New York market weakened considerably, the 4.99c. value for duty-paid Cubans falling to 4.86c. During the last few days, however, the market has strengthened considerably, yesterday's quotation being 4.76c., equivalent to 3.16c. c.i.f., or 3c. f.o.b.

Futures closed steady at: October 3.63c.; December 3.15c.; March 3.61c.

Values in the Home Market have followed the trend of those in New York, prices all round being lower. Yesterday's values were:—London Granulated, 48/9; American Granulated, 48/8 spot; West Indian Crystallised 43/- to 44/6 spot; White Mauritius, 46/- to 47/- spot; White Java, 46/6 spot. Cuban 96 deg. was quite nominal.

Terminal market values were: White, October 19/10½; November 19/10½; December 20/-, 96deg. all nominal.

The Board of Trade Returns for August show that the comparatively small quantity of 108,234 tons was imported for the month, of which 42,700 tons were refined and 65,534 tons unrefined. The lesser quantity of the latter was mainly due to the smaller arrivals from Cuba, which were only 21,629 tons, as against 78,371 tons in July last. 7,189 tons came from the British West Indies during the month, and 5,865 tons from Mauritius. A feature in the Returns is the re-appearance of Java sugar, 8,983 tons, entered under unrefined, although consisting of plantation whites, with 450 tons under the heading of refined. Only 3,056 tons of refined came from the Continent. 28,926 tons of refined were supplied by the American refiners during the month, and 11,737 tons by "other countries not in Europe." The total imports for the eight months of the year have been 1,822,254 tons, consisting of 383,977 tons of refined and 958,277 tons of unrefined. Of the refined, 297,889 tons came from the United States, and 69,264 tons from "other countries not in Europe," mainly Canada. 594,994 tons of the unrefined came from Cuba, and 89,944 tons from the British West Indies during the eight months, and 103,144 tons from Mauritius. A gratifying feature shown by the Returns is that the increase in the home consumption is being maintained, the quantity of sugar taken out of bond for this purpose during the month having been 139,107 tons, as against 133,500 tons in July, the heaviest consuming month. This brings the total for the eight months to 1,077,074 tons, as against 925,958 tons and 808,831 tons for the corresponding periods of 1921 and 1920 respectively. The contributions of the refiners to the consumption during these periods have been 636,987 tons, 529,071 tons, and 522,241 tons respectively.

The quantity of home-refined sugar exported during the eight months has been 29,978 tons, and of Colonial and foreign produce 10,883 tons.

The stocks on hand on August 31st amounted to 296,650 tons, consisting of 48,150 tons home refined, 40,350 tons foreign refined, and 208,150 tons unrefined. These figures compare with stocks on hand on July 31st of 264,250 tons, consisting of 44,200 tons of home refined, 41,750 tons foreign refined, and 278,200 tons unrefined.

RUM. There is no change to report, the market remaining dull and depressed.

The imports of rum during the month were 59,752 proof gallons, and the amount liberated for home consumption 89,834 gallons, bringing the respective eight months' figures to 1,987,451 gallons and 880,575 gallons respectively, the latter comparing with 3,596,136 gallons and 1,136,869 gallons for the corresponding period of last year. The month's exports were 33,328 gallons, bringing the total for the eight months to 820,996 gallons, against 111,982 gallons for the corresponding period of last year. The stocks on hand on August 31st were 11,037,000 gallons, as against 11,087,000 gallons on July 31st.

CACAO. At auction on the 19th inst., 19,630 bags were offered, but with the exception of 1,140 bags—mostly Trinidad and Grenada—the supply was bought in. Trinidad was in small demand at 65/- to 71/-, the latter price being paid for fine estate cacao; and fine Grenada was in slow request at 53/-. The market subsequently has been quiet, with small sales passing at these prices.

The Returns show that 58,855 cwt. of cacao were imported during the month, bringing the eight months' total to 1,029,596 cwt. The quantity taken out of bond during the month was 67,801 cwt., bringing the eight months' figures to 643,279 cwt., as against 579,923 cwt. for the corresponding period of last year; 31,249 cwt. came from the British West India Islands for the month, or 126,337 cwt. for the eight months. The month's exports were only 17,067 cwt., and the eight months' total, 240,152 cwt., has been less than the 288,859 cwt. exported for the first eight months of last year. Stocks on hand on August 31st were 823,000 cwt., as against 818,000 cwt. on July 31st.

BALATA. West Indian sheet remains quiet but steady, with spot valued at 3/3 and forward at 3/1 c.i.f.

COFFEE. Immediately after the publication of last Circular 28 barrels of Blue Mountain were offered at auction and sold at 196/- for hold; 192/- for second sizes; 156/- for smalls; and 205/- for peaberry.

COPRA is quietly steady, with West Indian f.m.s. valued at 22s. c.i.f. London or Rotterdam.

COTTON. West Indian Sea Island continues neglected, with the nominal values at: medium 23d., fine 30d., and extra fine 35d.

HONEY. The market is still very quiet for all descriptions. There has been a small demand for fermented at 20/- per cwt., and sound quality Jamaica is valued at 27/8 to 50/- for dark liquid to good pale set, and 60/- to 65/- for finest white set.

LIME PRODUCTS. Lime Oil, Handpressed is unchanged with sellers at 9/- per lb., but no sales are reported. Distilled remains steady, with small sales at 1/11. **Lime Juice.** Concentrated is lower, with business done down to 21/6 10s. There is no demand for Raw, and stocks are accumulating.

ORANGE OIL. There are sellers of Sweet at 10/-, but there is no demand at present. Bitter is neglected.

PETROLEUM. Following the fall of prices in the American crude oil market, the retail prices of petrol throughout England and Wales have been reduced. No. 1 grade petrol, as from to-day, will be retailed at 2/- per gallon—a drop of 3½d. In 1896 the highest price reached was 9d. per gallon; in 1906 1/4; in 1916 2/2; in 1920 (Feb.) 2/8; in Aug. of same year 4/7½ and in Aug., 1921, 2/5½.

SPICES. On the spot, **Pimento** is rather firmer, with buyers at 2d. and sellers at 2½d. Prompt shipment value on c.i.f. terms is 17/- per cwt. **Jamaica Ginger** has been arriving rather more freely, but buyers still show no interest. The nominal value is 165/- to 190/-, according to quality. West India **Mace** is steady, with broken to good pale quoted at 1/6 to 2/-, and good bright red at 1/8 per lb. In **Nutmega** defective broken are valued at 4½d. to 5½d., and sound at 8d. to 9d. per lb.

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The West India Committee Rooms.

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CARIB, LONDON.



14, TRINITY SQUARE,
LONDON, E.C. 3.
October 10th, 1922

AN AGRICULTURAL BANK FOR TRINIDAD.

IT is very evident from advices which we have received from Trinidad that the cacao industry of that Colony is passing through a serious crisis. The annual cacao crop has not in recent years increased in proportion to the acreage under cultivation, and it is common knowledge that the small proprietors, on whom the industry depends for its prosperity, are rapidly falling into the hands of extortionate local moneylenders, who have been charging in some cases as much as 20 per cent. for advances to enable "proprietors" to carry on. The result of this is that mortgagors, seeing no prospect of shaking themselves free from the shackles of debt, lose interest in their estates, which go steadily down until the inevitable happens and they lose them altogether, to be stripped and abandoned by the bloodsucker, who then turns his next victim. The position is rendered particularly grave by reason of the fact that many of the small proprietors are East Indians, whilst again, many East Indians employed as labourers would inevitably seek repatriation to India, if any general collapse were to occur, an event that would be a calamity of the first magnitude for a Colony which is already, comparatively speaking, sparsely populated. To meet this situation, the establishment of an Agricultural Bank was suggested. This pro-

posal, which emanated, we believe, from the Trinidad Chamber of Commerce, has recently been the subject of investigation by a Committee appointed by the Governor of Trinidad and Tobago, of which the HON. R. GERVASE BUSHÉ, C.M.G., the Auditor-General, was Chairman, and the Acting Attorney-General, two Members of the Legislative Council, the Acting Director of the Department of Agriculture, the Managers of the three Banks operating in Trinidad, three members of the Board of Agriculture, a member of the Committee of the Chamber of Commerce, and an East Indian Agriculturist, the members. With such a membership the constitution of the Committee may justly be claimed to have been thoroughly representative in character. The Report of this Committee is now before us, and we are glad to notice that it warmly favours the establishment of an Agricultural Bank on the lines suggested by the Chamber of Commerce. Briefly, the idea is that an Agricultural Bank shall be set up as a Government Institution, and that it shall take over all mortgages in Trinidad where the security is adequate, paying off the present private mortgagees by issuing to them bonds payable to bearer either in Trinidad or in London. The Bank will undertake the financing of the crops annually, acting in this connection on the advice of the Department of Agriculture. It is suggested that the bonds should bear interest at the rate of 6 per cent. per annum, whilst mortgagees would pay 7 per cent., the extra 1 per cent. of which should cover the running expenses of the bank. A further 1 per cent. per annum would be collected from the mortgagor to form a sinking fund for the amortization of his debt, which would accordingly be wiped out in 30 years, so that every year a mortgagor paid his interest he would be brought nearer to becoming the real owner of his property. This should prove an inducement to thrift, which is not possible where extortionate rates of interest such as 15 and 20 per cent. are charged as at present, and would have the result of establishing the small proprietary on a far more stable and sound basis—and it is with the thrifty small proprietor that the future of the West Indies lies. It is satisfactory to note that the findings of the Committee were unanimous, the only divergence of opinion being as to the placing of the bonds, a majority of the Committee considering that they should be placed locally, whilst the representatives of the Banks felt that to place them locally would be to tie up too much money in Trinidad, which is wanted for other purposes, and recommended, therefore, that the bonds should be placed in London; but this is a minor matter compared with

the general principles of the scheme which, so far as we can gather, have commended themselves to the entire community. What is now needed is action, and such action, if a calamity is to be averted and the cacao industry saved and developed, must be prompt. We trust, therefore, that the Secretary of State for the Colonies will give the matter his early and most favourable consideration.

SUGAR RESEARCH.

WE have on previous occasions referred to the British Empire Sugar Research Association, which it may be remembered was started some time ago in order to provide a central body for scientific research in connection with the sugar industry of the British Empire. Its inception unfortunately coincided with acute depression in the sugar industry, and it was decided that the time was inopportune for development. We are now glad to report that satisfactory progress is being made in building up this institution, and that Mr. R. G. W. FARNELL, Research Chemist to the Association, leaves this month for a prolonged visit to the West Indies, in order to study local conditions and make himself acquainted with the problems of moment in these parts. MR. FARNELL will go first to British Guiana, where he will visit as many estates as possible and make the acquaintance of those concerned with the scientific side of the industry. He will then proceed to Trinidad, where, under the aegis of Sir FRANCIS WATTS, Principal of the West Indian Agricultural College, and Commissioner of the Imperial Department of Agriculture, with which, we assume, the closest possible liaison will be established, he will continue investigations. It is hoped that he may also be able to visit Barbados and the Northern islands. We venture to think that the Association is wise in sending their chemist to the various parts of the Empire in order to study their problems on the spot, and we are glad to learn that he may later on be able to visit some of our other sugar-producing Colonies. That there is great scope for such an organisation as has now been set up is undoubted when one remembers that the British sugar industry is for the most part dependent on foreign bodies for the research, which is so vital to its existence, if it is to flourish, or indeed hold its own. The work of many of these bodies has been excellent; but it would be a sad reflection on the great British Empire if it were to remain dependent upon foreign enterprise in respect of scientific research of this kind. Consequently, we welcome the incipient activities of the British Sugar Research Association, as we do also those of the Empire Cotton Growing Corporation, who have recently sent a research officer in the person of Mr. L. H. BURD to St. Vincent.

SOME NOTES OF INTEREST.

"Coward man keep whole bones."

* * *

MUCH sympathy will be felt for Mr. C. F. Condell, late Commissioner of Montserrat, in the loss which he has just sustained through the death of his mother.

* * *

THE Intercolonial Cricket Tournament, which was held in Georgetown last week, resulted in Barbados not only beating the Home Colony, whom they met first, but also Trinidad, the latter by an innings.

* * *

"A CHILD'S love of sweets is not original sin, but a natural indication of their physiological value." This dictum of Herbert Spencer is a hard nut to crack for the dentist who declared recently that confectionery was doing humanity more injury than drink.

* * *

A PATRIOTIC member of THE WEST INDIA COMMITTEE, proceeding to a British West Indian port under a foreign flag, writes tersely: "More Germans than ever travelling—and first class; all the second class are English. Books in the library are all, so far as I have seen, by U.S.A. authors."

* * *

NEW YORK is already preparing to celebrate in 1926 the tercentenary of the foundation of the city. Founded by the Dutch West India Company in 1624, New Amsterdam, as it then was called, was exchanged, in 1674, by the Netherlands for Surinam, which had been captured by the English some years before.

* * *

THE suggestion is made in *The Workman* (of Panama, in its issue of September 9th) that a West Indian Memorial Day should be yearly observed on the Isthmus, to include a mass march to Mount Hope and Coco Grove, and special memorial services in the various West Indian churches. Why not Armistice Day?

* * *

A CORRESPONDENT informs us that it is not strictly correct to say that the Governor of Barbados' salary has been reduced. What has happened is that the war bonus of 25 per cent. sanctioned a few years ago has now been withdrawn. On the other hand, he adds, His Excellency will now have to pay income-tax.

* * *

THE Socorro factory in Matanzas, Cuba, making about 15,000 tons of sugar, is to be dismantled on account of the inability to obtain enough canes to supply its full wants. This factory has turned out this crop a few thousand bags of white sugar, it being, according to the *Louisiana Planter*, one of the few large plants in Cuba able to make this class of sugar.

* * *

LABOURERS on sugar plantations in Hawaii, under arrangements with the proprietors, receive a

THE minimum subscription for membership of The West India Committee is £1 1s. per annum.

bonus of 5 per cent. on their pay when sugar reaches 5 cents per lb. On September 1st they were granted a bonus of 8 per cent., based on an average price of 5.29 cents per lb. realised for sugar. Similar encouragement is given by some estates to skilled employeés and office staffs.

The consumption of hair washes and perfumes by thirsty Americans will receive a severe check if the new denatured-alcohol formula is rigidly applied. Known as 30c, it runs: "To every 100 gallons of pure ethyl alcohol add 1 gallon of diethyl phthalate. The diethyl phthalate used shall be of the same quality as that specified for use in specially denatured alcohol formula No. 39b and shall be free from chlorin."

RAO SAHER KASANDI D. NAIK, officiating secretary of the Sugar Bureau of the Imperial Department of Agriculture in India, has supplied THE WEST INDIA COMMITTEE CIRCULAR with the following figures showing the total sugar production in Maunds (equivalent to 82.3 lbs.) in that country for the seasons, November to April, in the past two years.

Cane crushed.		Sugar made.		Molasses obtained.	
1921-22	1920-21	1921-22	1920-21	1921-22	1920-21
10,759,636	9,731,415	753,038	669,291	433,467	404,712

In January-August of 1920, no fewer than 927,051 lbs. of cigars were imported into the United Kingdom, of which 693,006 lbs. came from Cuba. In the corresponding period of the following year the figures fell to 163,174 lbs. for the total imports, and to 59,948 lbs. for that from Cuba. A revival of trade in this respect has, however, set in during the present year, the January-August total imports having risen to 388,280 lbs., with 306,085 lbs. from Cuba. The export of imported cigars for the corresponding periods was, in 1920, 78,370 lbs.; in 1921, 25,000 lbs.; and in 1922, 59,740 lbs.

For some years past the question of the cultivation of tobacco in Mauritius has engaged the attention of the agricultural authorities in that island. The extremely comprehensive *Mauritius Almanack* for 1922 says that complete success has attended the experiments in this direction, and that the necessary licences are now being issued to small growers. "Prospects for the development of this not unimportant minor industry," says the *Almanack*. "appear to be decidedly hopeful." The tobacco experimented with was the type grown in Réunion.

The re-appearance of white sugar from the British West Indies in the Home Market recalls the days beyond the memory of the oldest inhabitant, when elayed sugar was shipped from them. This sugar was muscovado sugar, cast in the traditional sugar-loaf shaped moulds and washed white with water by drainage. A few of the old moulds, made of brass or gunmetal, were, in the 'eighties, still to be found on an estate in Berbice, being used as

gongs for various purposes in the factory, and the writer has seen a handsome set at the Crane Hotel in Barbados, where they were being used as a dinner gong.

SPEAKING on a motion for the adoption of the Address in reply to the Governor-General's speech at the recent opening of the Australian Senate, Senator Crawford stated that the average cost of refining in Australia was £6 10s. 8d. per ton, which covered freight from the ports, insurance, wharfage, harbour dues, bags for both the raw and refined sugars, exchange, cartage from ships to refinery, all refining charges, cost of handling and distributing, and depreciation on refining plant. The refiners were allowed by the Government agreement a profit of £1 per ton, out of which depreciation of plant had to be provided for.

DR. JOHN ALCINDOR, president of the African Progress Union, was the host at a successful social gathering held on September 21st, under the auspices of the Union, when a speech was delivered by M. Edward Junod, secretary of the *Bureau International pour la defense des Indigènes*. Those present included Rev. J. Britton, Mr. and Mrs. Barbour James, Mr. and Mrs. S. Baptiste, Mrs. Pearson, Miss Hayford, Mrs. Lockhart, and Miss Emma Smith (honorary secretary). Dr. Alcindor became a patron of the Centenary Celebration of the Association for the Propagation of the Faith, which was held last week at Westminster Cathedral.

MR. SYDNEY T. HARRISON, Comptroller of Customs for Barbados, in his report for 1921 gives a table showing the customs receipts and quantities of sugar and molasses exported in the last ten years, from which the following figures are taken.

Year.	Total Customs Receipts.	Sugar and Molasses in Tons.	Value of all the Colonial Produce exported.
1912	£132,799	71,253	£765,538
1913	124,434	51,210	527,606
1914	115,627	50,396	661,065
1915	115,627	57,201	840,682
1916	148,437	100,073	1,087,282
1917	158,733	94,684	1,623,651
1918	127,721	81,768	1,636,323
1919	162,507	89,762	2,194,913
1920	200,933	65,253	3,510,084
1921	160,803	45,398	973,650

THE Compagnie Générale Transatlantique announce that St. Vincent will be made a regular port of call of their intercolonial steamers in the immediate future. The same company has also arranged a series of winter cruises from Plymouth to the West Indies and Spanish Main at greatly reduced fares. These cruises commence in December and end in April. The steamers follow their usual itinerary, Pointe-à-Pitre, Basse Terre, Fort de France, Port of Spain, La Guayra, Puerto Colombia, Colon, Puerto Colombia, Caracao, Puerto Cabello, La Guayra, Carupano, Trinidad, Fort de France, Basse Terre, Pointe-à-Pitre, Plymouth. The tourists retain the same cabin on the ship for the whole cruise.

The *Times* on September 20th published the following extract from its columns of the same day in 1822 :—

"The benefit of a periodical communication with America, by means of packet ships, is extending itself to some of our West India Islands. It is intended to establish a regular intercourse with Jamaica, and for this purpose four well known vessels, with experienced commanders, are to sail from this port every six weeks for that island. The first vessel, the *Vere*, is to sail hence on the 15th of next month.—*Liverpool paper.*"

This was sixteen years before Mr. James McQueen propounded his scheme for mail communication between Great Britain and the "Eastern and Western Parts of the World," and the formation of the Royal Mail Steam Packet Company by Mr. George Hibbert and other members

to women to conduct services or preach in churches, whilst in the matter of the suit now pending by certain members of the Vestry of Christ Church, Nassau, in the words of the *Church Times*, "a severe rebuke was administered to these leaders in their efforts to repudiate the proper authority of the Bishop of Nassau and his diocesan authorities, and to enslave the Church to the discredited decisions of the Privy Council."

* * *

The first person to describe and delineate the "anana," or the pine-apple, writes Mr. H. Prosser Chantler in *Notes and Queries* (September 18th), was Oviedo, who in 1535 was Governor of St. Domingo, and he tried to introduce the anana into Europe. A French monk in Brazil next described it under its Peruvian title "nanas," while Jean de Lery, a Huguenot chaplain, was the first to use the word

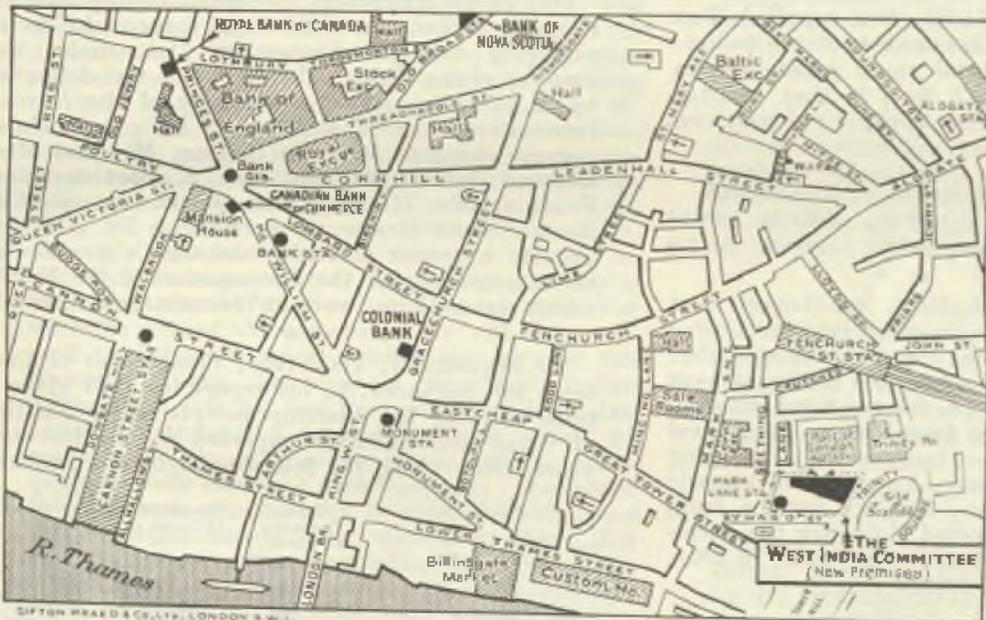
"ananas." The prelix *Bromelia* was given to it by Linnaeus in honour of Olaf Bromel, a Swedish naturalist, who died in 1705. At the beginning of the eighteenth century, Lady Mary Montague, at the dessert table of the Elector of Hanover, considered the anana surpassed other fruits, there being "two ripe ananasses, which to my taste are a fruit perfectly delicious." The struggle for supremacy had been going on for quite half a century, for in 1681 we find Evelyn dilating on the "famous Queen Pine" brought from Barbados, and also in 1668 rejoic-

ing that the King had cut a piece of the "King's Pine" from his own plate and given it "to this worthiest of his courtiers, that he might taste as well as feast his eyes upon a novelty he had never seen before."

* * *

TURTLE SOUP.—2½ lbs. of turtle, a heavy ½ lb. of calipee, same of turtle fin, 1 lb. 2 ozs. beef, 1½ ozs. salt pork, 1 dessert-spoonful of cassareepe, 2 ozs. of salt butter, 2 ozs. eschalop, ½ oz. of thyme, ¼ of a teaspoonful of black pepper, 10 pints of water, salt and pepper to taste. Simmer for 4 hours. Take out the bones, put in the seasoning and boil for 2 hours longer. Then add a wine glass of sherry, a tablespoonful of brandy, a tablespoonful of lime juice, and serve at once.—**COOK HARRIS.**

West Indian recipes for publication in this column will be welcomed by the Editor.



The West India Committee's new premises.

This plan shows the position of The West India Committee's new premises at 14, Trinity Square, E.C. 3, in relation to other familiar landmarks in the City of London.

of The West India Committee. It is now almost forgotten that the R.M.S.P. Co. was founded to give the West Indies a mail service.

* * *

SOME interesting discussions took place at the Synod of the Province of the West Indies, which was in session in New York, under the presidency of Archbishop Hutson, from August 28th to September 2nd. The question was considered of co-ordinating the West Indian dioceses with the contiguous work of American Missionary jurisdictions in Central America, the Canal Zone, and the islands of Haiti, Porto Rico, Cuba, St. Thomas, and Santa Cruz. If such co-ordination comes about, it may be necessary to form two provinces in place of the present one. A resolution was passed refusing to approve any general commission

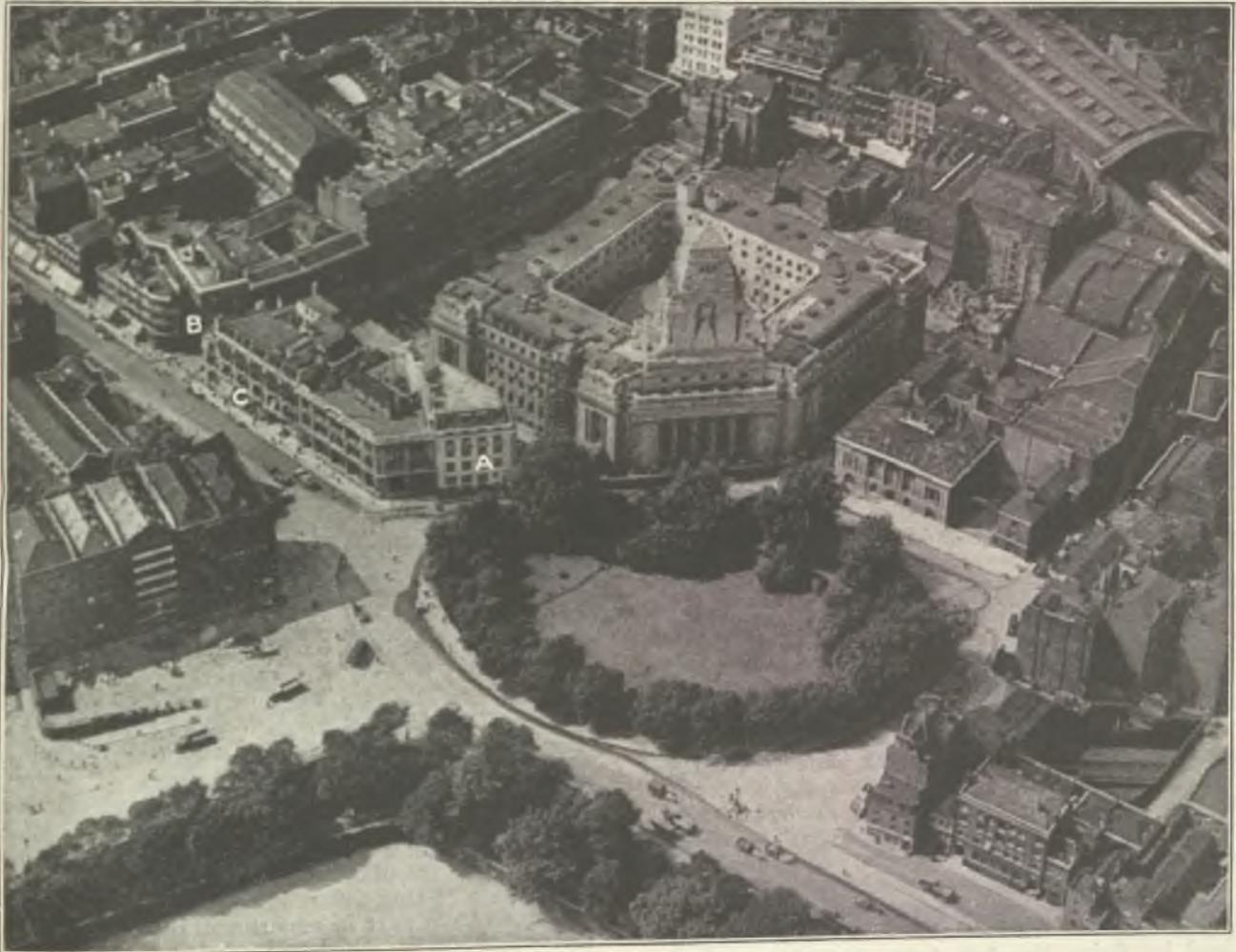
THE WEST INDIA COMMITTEE.

The New Premises at 14, Trinity Square.

The "move" of The West India Committee from 15, Seething Lane to its new premises at 14, Trinity Square, took place on Michaelmas Day, "according to plan," and without a hitch. At

—regarding which an announcement will be made at a later date; but the business of The West India Committee is being carried on without interruption.

For the further guidance of members of The West India Committee and others desirous of finding their way to the new premises at 14, Trinity Square, an aeroplane photograph of the neighbourhood is reproduced on this page. It will be noted that the new premises are quite near the old, but in a much



Trinity Square from the Air.

In this striking picture taken from an aeroplane the new premises of The West India Committee (immediately next to the Port of London Authority's building), with its impressive Assyrian-looking tower, are marked A, the old Committee rooms B, and the entrance to Mark Lane Station C. The white space at the foot of the picture is the most of the Tower of London, above which is the Garden of Trinity Square on Tower Hill, with the site of the scaffold railed off on the left of it. On the other side of the Port of London building is Trinity House.

noon the last piece of furniture had left the old offices, the telephone was disconnected and the keys handed over, and at noon the telephones (of which there will be four, with one specially set apart for members) at 14, Trinity Square, were put in action and work in the new offices was begun. As already stated, the premises are being equipped with new furniture throughout and some little time must pass before they can be ready for the opening ceremony

more pleasant situation, overlooking as they do the plane trees and garden of Trinity Square. It should perhaps be explained that the plan published in the last issue of the CIRCULAR, and again to-day, in a smaller size, was not drawn to scale, The West India Committee offices bulking larger than the immense Port of London building adjoining it, the object being to make the position of the premises perfectly clear at a glance.

THE NEW AMERICAN TARIFF.

Duty on Foreign 96° now 2.20c. per lb.

President Harding on September 21st affixed his signature to the McCumber-Fordney Tariff Bill, which thereby became effective from midnight.

It may be recalled that the new law had its inception in hearings that were inaugurated by the Ways and Means Committee of the House of Representatives at the very beginning of 1921. Hearings on the sugar schedule were conducted on January 18th and 19th of that year. The Bill was reported to the House by the Committee on June 28th, 1921, and was passed on July 22nd by a vote of 289 to 127.

As adopted by the House the Bill provided the same duties on sugar that had been fixed in the emergency tariff law, that is, a rate of two cents a pound on 96 degree sugar from full duty-paying countries and 1.60 cents on sugar of like degree from Cuba. It also provided a duty of one cent a gallon on molasses testing not above 48 per cent. total sugars, with an addition of 275 thousandths of a cent for each additional sugar degree, and imposed a 50 per cent. *ad valorem* duty on raw sugars.

The Bill, says *Facts about Sugar*, was then referred to the Senate Finance Committee, which proceeded to hold hearings on its own and made thousands of alterations in the schedules. The hearings on sugar before the Senate Finance Committee were held on December 19th and 20th, 1921. The Bill was finally reported to the Senate on April 21st, 1922, with no change from the House rates on sugar, but with a provision for admitting molasses, not above 52 degrees sugar content, and not intended for human consumption, free of duty.

When the Senate came to consider the sugar schedule, however, on August 8th, it increased the duty on Cuban raw sugar to 1.84 cents a pound, and on raw sugar from other countries to 2.90 cents. The bill was passed by the Senate on August 19th by a vote of 48 to 25, and then went to a conference committee of the two houses.

In conference the divergence between the rates proposed by the House and Senate was compromised by fixing the full duty on 96 degree test sugars at 2.206 cents a pound, and on sugars of like grade from Cuba at 1.7648 cents, which are the rates that hereafter will be in effect. The conference committee also set the duty on imported molasses, not above 52 per cent. total sugars and not intended for human consumption, at one-sixth of a cent per gallon.

The conference report was adopted by the House on September 15th and by the Senate, September 19th. Approval of the Bill by the President was the final step toward making it the law of the land.

MR. W. McMILLAN has been appointed factory manager of the Samastipur Central Sugar Company at Behar, and sails for India this month.

THE AUDUBON SUGAR SCHOOL.

Its Organisation and Purposes.

(Continued from page 442.)

SUGAR HOUSE ENGINEERING.

The work along this line is designed, first, to give the student a practical knowledge of different mechanical operations concerned in the manufacture of sugar, and, secondly, to teach him the more important engineering problems peculiar to sugar-house machinery through experimental research.

In both cases the student learns by actually doing tests assigned.

Before the grinding season begins, the students are required to overhaul the entire sugar-house, cleaning and repairing all the machinery. After the grinding begins each student, in his turn, is assigned charge of the different parts of the house, such as boiler-room, cane-mill, sulphuring machine, clarifiers, filter-presses, double-effect evaporators, vacuum pan, centrifugals, etc., each of which he must operate himself, also giving attention to various auxiliary apparatus, such as steam engines, vacuum pumps, water pumps, etc.

The experimental work is devoted to making various tests upon the machinery and to sketching and measuring the same in order to learn the proportions and construction of the different parts. The experimental work includes tests to determine the thermal efficiency and capacity of a double-effect with varying conditions of steam-pressure, vacuum and height of juice level; the power required to run the mill with varying quantities and kinds of cane per unit of time; the energy required to operate centrifugals with different massecuites and different periods of acceleration; the capacity of a filter press with varying pressures, kinds of material filtered, and kinds of cloth; the thermal efficiency and capacity of a vacuum pan under different conditions of steam pressure and vacuum; the steam consumption of an open-pan clarifier. Tests of the boilers are also made, and a daily record of the fuel burned is kept in order that the economics of the plant as a whole may be studied.

Students of this course are also given the opportunity to take part in experimental tests of sugar-house machinery, which are carried on each grinding season in sugar-houses of the State by members of the Experiment Station Staff.

PRACTICAL WORK ON PLANTATIONS.

Students in the fifth year, instead of going to the Park with the fourth-year students, are sent out into practical work in various sugar-houses, where they serve as assistant chemists or engineers, and receive the usual salary attached to such positions. No student is placed in this work save those who have completed satisfactorily the work of the fourth year; neither is any student permitted to accept such positions without first obtaining the permission of the University authorities.

The Station possesses an excellent library, devoted particularly to the literature of sugar and sugar chemistry. Students can thus be referred to

original articles and are expected to make use of them in preparing reports.

The material equipment of the Station is valued at about one hundred thousand dollars. It consists of a well-equipped sugar-house, fields of cane, including all the well-known varieties and many yet in the experimental stage; large and very complete laboratories both for chemical control and for chemical and bacteriological research. The fields illustrate various forms of draining, including tile drainage. The sugar-house contains a nine-roller mill, with several kinds of cutters and comminators; Horsin-Deon and Baldwin's juice weighers, centrifugals; water, air and vacuum pumps; juice and syrup tanks; sugar wagons; sugar shaker; a crystalliser for crystallisation in motion; a hot-room, and a boiler-house, with boilers, engines, etc.

The foregoing is an account of the work in the regular course of the Sugar School. Its main aim is to prepare sugar experts. Its second aim is to give to those who do not wish the full course, partial instruction in the different departments of sugar-growing and manufacture. Therefore, irregular students are received in the following departments: Agriculture, Mechanics, Chemistry, and Drawing.

Special courses in any of the above lines are offered to such students as may be lacking either in the time or the preparation necessary to complete the full course of the Sugar School, provided their previous training qualifies them to enter the classes they may select.

Students lacking the proper preparation will not, however, be admitted to the practical course at Audubon Park. Such preparation, as a rule, will be the equivalent of three years of collegiate work, including Chemistry and Physics.

QUALIFICATIONS FOR ADMISSION.

Every applicant for admission to the University must be of good moral character and at least sixteen years of age (at nearest birthday); but for students who are well prepared to enter the Freshman class the age limit may be waived.

Students are admitted upon examination or the presentation of satisfactory certificates in the following subjects:—

	Units
English	3
Algebra, through Quadratics	1½
Plane Geometry	1
Foreign Language	2
History	1
Elective	7½
Total	16

The term "unit" means a high school subject pursued for five hours per week for one year.

Students preparing for entrance are advised to pay special attention to elementary mathematics. Weakness in this subject is the commonest cause of subsequent failure.

The rules governing the students of the Audubon Sugar School with respect to discipline and fees are the same as those governing the students of the College of Engineering.

In the fourth and fifth years of the Audubon Sugar School, students spend ten weeks at Audubon Park or in a sugar-house during the first term, the remaining time being devoted to the course as outlined below.

As hitherto formulated, the courses of the Audubon Sugar School have accentuated mainly the chemical and the mechanical side of the making of sugar. Students desiring to lay more stress on the agricultural side have been permitted to substitute agriculture for certain required subjects in the fourth and fifth years. The growing importance of scientific agriculture as applied to sugar cane and the increased demand for men who can grow the cane in the field to the greatest possible advantage, as well as control its manufacture in the sugar-house, have made it necessary to formulate a definite course in Sugar Agriculture. Students may enter this course at the beginning of the Junior year, either from the College of Agriculture or from the Sugar Engineering course, or from other courses giving preparation sufficient to enable the students to carry satisfactorily the courses indicated.

ECUADOR'S CACAO CROP.

Through the courtesy of the Department of Overseas Trade, it is now possible to supplement the figures of the production of cacao in Brazil which were published in last issue with those of Ecuador. According to H.B.M. Acting-Consul Urquhart, the entries of cacao into Guayaquil for 1900 have been as shown below.

Years	Quintals of 100 lbs.	Years	Quintals of 100 lbs.
1900	351,742	1911	806,410
1901	452,936	1912	728,920
1902	467,496	1913	859,684
1903	456,015	1914	922,138
1904	535,882	1915	713,785
1905	403,428	1916	980,549
1906	456,905	1917	900,953
1907	398,269	1918	760,290
1908	631,957	1919	750,485
1909	620,567	1920	754,481
1910	752,751	1921	827,358

The entries from January to August 15th this year were 555,927 quintals, and it is estimated that by the close of the year the total will reach 750,000 quintals.

There is some doubt as to the derivation of the word "muscovado." Deerr states that the best authorities derive this term from the Spanish, *menoscabo*, meaning damage and the idea of inferiority, this word being made up of *menos*, little, and *acabar*, to finish. The corresponding word in French is *achever*, and Deerr sees a transition to *méchet* and *mischief*. Another, and, perhaps, a likely one, is from the Low Latin *muscum*, meaning musk, referring to the pleasant smell and taste of raw sugar. There is another derivation advanced, viz., from the Spanish *mas*, more, and *acabado*, finished, alluding to the process going beyond the syrup stage, but this can hardly be taken seriously.

CREOLE CHOCOLATE.

What Ceylon is Doing.

It was recorded in THE WEST INDIA COMMITTEE CIRCULAR, of September 14th, that a Committee of the Trinidad Agricultural Society had reported adversely regarding the possibility of developing a local chocolate industry on a large scale.

At a further meeting of the society on September 15th the question was, however, again raised by Mr. A. V. Stollmeyer, who stated that Mr. Hall, of the Trade Commissioners' Office, had furnished some additional information on the subject. Mr. Hall, who was present then, according to the *Trinidad Guardian*, said that so far as he had been able to ascertain in Trinidad and Jamaica, the largest of the West Indian islands consumed 1,500 lbs. of chocolate per week. Supposing a factory were established turning out two tons of chocolate and cocoa per week, the question was, could a market be found in Trinidad and the surrounding islands to consume an output of that size. He must confess he had his doubts. One of the things said in favour of a chocolate factory was that it would absorb more Trinidad cacao, but from the output of two tons per week it seemed that the consumption of cacao would not be more than 2,000 bags per annum.

The following extract from the *Ceylon Observer*, relating to the manufacture of chocolate locally, was circulated:—

The manufacture of the cocoa and chocolate at Peradeniya is as follows: The raw cocoa beans as brought in from the fields are first put into a circular roasting machine where they are heated to perfect dryness and then they are spread out in a trough to cool. After they are sufficiently cooled they are put into a winnowing machine. The working of this winnowing machine is highly interesting inasmuch as it cleans the beans thoroughly, removes all foreign matter, separates the shell from the beans, and shreds them into the several different grades. The roasted beans are shovelled from the trough into a small container whence they are carried to the top of the machine by an elevator. Here they strike against an iron plate which causes them to spread and then pass under a magnet which removes all foreign matter. The beans then pass through a crushing machine in the winnowing, and thence on to a cylinder which separates the crushed beans into seven different grades. A powerful fan, working simultaneously, removes all the shells and ejects them from the back of the machine, whilst the different grades of crushed bean are collected in separate bags in front. The first four grades are next put into a sort of sifter to separate the gum, a dark gritty portion of the bean which if left behind would cause the ultimate product to be a bitter and gritty chocolate. The shredded beans are next passed into a shoot which feeds a cocoa mill, which heated by steam grinds the cocoa into a steaming highly indigestible mass. This mass is taken out and put into an hydraulic press which exerts a pressure of about half a ton per

square inch to extract the butter. The residue is allowed to solidify in circular moulds. This is next broken up and ground into powder by means of a machine similar to a rubber washing machine. The powder thus obtained is next put into the melanguer which grinds it into a fine powder. This powder is then passed through the cocoa sifting machine and is then ready for packing into tins.

The manufacture of chocolate differs somewhat. As in the manufacture of cocoa, the beans are first roasted, cooled, shredded and cleaned, and then ground into a sticky mass by means of the steam-heated mills. Here the process differs. Instead of being put into the hydraulic press the mass is conveyed into a mixer and there thoroughly mixed up with sugar and butter. This mixture is further rolled in a refiner which causes the various substances to unite more closely. From the refiner the mass is passed on to a species of mixer known as the Conche, which is run for 48 hours. This process is known as caramelising, i.e., by continuous mixing the sugar thoroughly unites with the cocoa, making the whole smooth and butter-like, resulting in a perfectly smooth and mellow chocolate. From the Conche the product is moulded in small moulds and then cooled in a refrigerating plant. The finished product is then taken to the packing room, where it is wrapped up in tinfoil to preserve it. The chocolate manufactured at the Peradeniya factory is a highly-finished product, perfectly smooth and hard, though easily melted. The various refining processes it undergoes results in a chocolate free from all traces of bitterness. It is guaranteed to last six months.

EMPIRE SUGAR RESEARCH.

Work to start in Guiana.

Mr. R. G. W. Farnell, Chemist to the British Empire Sugar Research Association, leaves London in the *Intaba*, on October 17th, for British Guiana. After spending about two months in that colony he will proceed to Trinidad to undertake research work at the West Indian Agricultural College. Thereafter he will visit other sugar-producing colonies within the Empire.

Mr. Farnell, after graduating at the Imperial College of Science and Technology, where he studied under Professor Baker, was attached to the firm of Brunner, Mond and Co., alkali manufacturers, of Northwich. Leaving them, he next embarked on research work at Oxford under Professor Perkin. Appointed to his present position in January last, he studied at the Glasgow Sugar School, under Mr. T. H. P. Heriot, for three months, during which period he visited the principal sugar refineries and sugar machinery manufacturing works. Since April he has been back at the Imperial College investigating pectic substances and plants with special reference to sugar.

Mr. Farnell was married on September 16th, by the Bishop of Trinidad, to Miss Dorothy Clara Coode. Mrs. Farnell hopes to proceed to Port of Spain early in the New Year.

A NATURALIST IN TRINIDAD AND TOBAGO.

By P. LECHMERE GUPPY

Member of the Civil Service, Trinidad and Tobago.

(Continued from page 445.)

It is unusual for flying-fish to go as far south as Trinidad, though they occasionally get near the Toco coast in the channel separating the two islands. Two species were sent to the British Museum from Tobago—*Exocoetus nigripinnis* and *E. hillianus*. The latter is the commonest species. Much discussion has taken place regarding the flight of these fishes, as to whether under control or not. The writer was fortunate enough to observe one of these, in calm weather and a flat sea, leave the water and circle round the boat in which he was seated; of course, he was unable to tell the species, as it only remained a few seconds in the air before disappearing.

The greenbacks, or carangues, put up a good fight when hooked, and are considered good game fish; they are often big and heavy, and know how to put their weight on the line; they give plenty of excitement to the angler who wants something to play with and work his skill on at the same time.

When going over rocky bottoms in fairly shallow water there are big barracouta (*S. picuda*) lurking about; a vicious tug at one's line and a leap out of water will let you know that you have got one of these sea-pirates. Small barracouta are delicious eating, but there is a prejudice against this fish, as it seems that it is occasionally poisonous. A note about this is made at end.

That famous fish, the tarpon ("Grand-écaille"), is not often captured, but I think this is because it is not fished for. The food value does not make it attractive to the local fishermen. No doubt further investigation will prove that it is fairly plentiful in certain localities. The writer has seen the large scales of this fish scattered on the beach at different fishing places. Small specimens have been taken in the brackish water at the mouths of streams.

Fresh bait for banking and trolling is easy to obtain in Tobago. The spoon can be kept handy for trolling in case of accidents. Sprats, sardines, etc., are abundant in the different bays, and if due notice is given to your man or boy he should be able to get you all you require. An ice-box can be used to keep any surplus for an emergency, so that there need be no difficulty about always having the best bait.

Fishing off the rocks with rod and line may be considered rather a mild form of sport compared with the foregoing; but it is certainly more exciting than some of the river and seaside fishing one so often sees in the Old Country. The right time and tide should first be ascertained before arranging any of these "expeditions." Moon and tides play an important part in controlling the movements of fishermen in the West Indies, and the best time of day for sport is very early morning.

Fishing conditions in Trinidad and Tobago differ somewhat; the kinds of boats used are quite dis-

tingent. On the other hand, a good deal of fishing in Trinidad is now done in motor-boats under comfortable conditions by some who combine pleasure with profit, and by others who can afford the luxury.

The ordinary fishing boat used by the natives is a very light and handy craft compared to the cumbersome Tobago affair which is built to face heavy seas and rough usage.

The angler in the Gulf of Paria will, as often as he wishes, be able to arrange to do his fishing in a calm sea in any craft he may select, light or heavy, but in Tobago he will have to face the broad Atlantic, and therefore must be prepared for a tossing about, and he is well advised to make use of a good stout motor-boat, and so equipped he will have all the sport he wishes without the discomfort.

All kinds of fishing tackle can be obtained in the shops in Port of Spain, except perhaps that suitable for river fishing.

The Freshwater Mullet (*Agonostomus monticola*) is very plentiful in all the Tobago streams, and some sport is afforded by this active little fish when the proper tackle is used, and this should be rod and line of mist-coloured gut, and the hook must be baited with grasshoppers or caterpillars freshly caught—no imitation fly will tempt this wary fellow. A butterfly net is just the thing to get the live bait, which can be caught by sweeping the grass and bushes near by. Nine to 10 a.m. is the best time to try for this fish on a sunny day. It will probably take your bait on the surface, but sometimes waits until it sinks.

THE HABITS OF SOME FISHES.

The number of species of fishes in Trinidad waters may be estimated at 240, and the Tobago species at 180. Most of these are common to both islands, and a few facts connected with the best known amongst them will now be given.

A very common fish at certain seasons in the Gulf of Paria is the "Paoua" or "Spade" fish (*Chaetodipterus (Ephippus) jaber*), which is caught in the early part of the year by baiting hooks with "Jelly-fish" (called "galere" by the natives). The writer has only inspected immature specimens of the "Paoua" in Tobago waters and has never seen any of the jelly-fish in Tobago, which is used as bait in the sister island. The young differ somewhat from those in the adult stage. It is considered a good food fish in some places, and is common in Florida, U.S.A.

The "Four-eyes" (*Anableps tetraphthalmus*) which may be seen on the sandy beaches scurrying up and down with the incoming and receding waves often attracts attention by its erratic movements, its prominent eyes appearing above the water. One might wonder why this fish has never become established in Tobago. It might easily have drifted across the narrow channel that separates the Islands, for logs, timber, plants, seeds, crude oil, and debris of all kinds reach the Southern shores of Tobago borne on the flood-water which comes from the Orinoco River via Trinidad. In September last year a Venezuelan curial drifted across into a bay near Scarborough. During the months of September and October the Tobago water, always so

clear and translucent, occasionally becomes dark amber coloured, or greenish-brown, from this cause; fortunately this happens for only short periods, as the strong N.W. current soon sweeps the discoloured water to leeward. In spite of the opportunities that occur from time to time, the "Four eyes" has never crossed the channel, and still remains a stranger to Tobago. It does not appear to be widely distributed, and is only recorded from Trinidad and the Guianas.

That wonderful armoured fish made famous by its culinary reputation in Trinidad, the "Cascadura" (*Callichthys littoralis*) has a peculiarly delicate flavour quite distinct from any other fish. This is brought out when the fish is cooked by an expert Creole. This flavour might be associated with mud—but it is delicious mud! The writer's advice is: "Have the fish cooked the right way, eat it, and wait and see." It will tickle the most fastidious palate. The time for getting Cascadura is in the middle of the dry season, when numbers are brought on strings to market, where they may still be seen wriggling. They are tenacious of life, living for some time out of their natural element. Indian boys who live at Tunapuna, Trinidad, and know the Caroni district very well can always be relied on to get a supply.

The habitat of the Cascadura is muddy fresh-water swamps. Although plentiful, it is a matter for speculation how far drainage operations will affect its numbers. The danger of its extermination is, however, remote, as it will thrive in drains, pools, and muddy streams. It is not found in Tobago, as there are no suitable conditions in that Island. There are three species of "Cascadura" found in Trinidad.

Streams of two distinct kinds are met with in Trinidad. These offer a great contrast with one another. One kind runs over sandy, rock-strewn beds with clear water, and the other flows with sluggish current through flat, clayey land with muddy water. There are large pools in all the streams well stocked with fish, conditions being favourable to fish life, in fact the variety of fresh-water fishes in Trinidad is large, over 40 species having been sent to the British Museum.

Tobago, which is a very well-watered little Island, can only muster about one fourth of this number; but, on the other hand, its freshwater mullet gives some sport, and this is more than can be said of any of the river fish in Trinidad. The scarcity of this mullet in Trinidad is noticeable, but it is remarkably abundant in the sister Island. The silvery "sardines" (*Icteronopterus* spp.) are abundant in Trinidad, but are too small and bony to be worth catching. The fish that are worth catching seldom bite. The native boys find means of getting at these, but their methods would hardly appeal to the sportsman. In the Caroni River fishes of all kinds are abundant, but it appears that they are too well fed to take any notice of modern tackle; perhaps there is some kind of bait to be found near the spot that will prove irresistible.

After prolonged dry weather the water in pools in the smaller rivers and streams runs very low. It is then easy to obtain specimens of several kinds of fishes and it is possible, if the right locality is

chosen, to net as many as 16 different species from one small pool. Some species are local in habitat, and must be looked for specially. In one of these isolated pools "sardines" are sure to be most in evidence, and if it is a pool in the flat-lands at the foot of the northern hills, the Cascadura will also be numerous, besides other interesting fishes.

FISHES WHICH BLUSH.

Some years ago the writer took a collection of about a dozen species of freshwater fishes alive, and in good condition, to England. Among these was a pair of "King Cascarobs" (*Polycentrus Schomburgki*), which literally have the power to "blush at will," turning from black (their usual colour) to pinkish white, or speckled. There were "sardines," "Millions," and other small fishes as well. Some of these, including the little "Polycentrus," had mated, and consequently had increased in number not long after their arrival in England. This collection of fishes stood the ocean trip of thirty days very well indeed, which only shows what is possible in the way of transporting fishes. The aquarium in which they were afterwards established was, of course, run under conditions that left nothing to be desired, and the fishes were fed by the writer in person throughout the voyage.

An interesting little "sardine," which is plentiful in muddy Cumuto streams, is *Coryppoma risii*. At one time this species received four different names, until its identity was finally settled through the writer sending a long series of specimens to the British Museum, at the same time stating his belief that there was only one species. The difference between the immature and adult stages is great, hence the confusion.

In Trinidad there are fresh, brackish, and salt-water catfish. These long-whiskered *Siluridae* have no counterpart in Tobago. East Indian labourers catch and eat them, and they are sometimes exposed for sale in the fish market. There is a bright-coloured species (yellow and green) (*Pseudacanthopterus guppyi*) which is common in the Caroni River as high up as the Caroni Estate, and there is a well-known clear-water catfish (*Pimelodus wilsoni*), and the "Maman cascarada," or "M. Cascadura" (*Plecostomus* sp.). The latter grows to a good size (18 inches), and is furnished with a suction disk at its mouth to enable it to cling to the bottom (mud, sand or stones), to stem the current. The "Cuabin" with formidable teeth is perhaps the largest fresh-water fish—it is a very secretive fish, and seldom seen, and the large ones are not easily caught, though they are by no means rare (*Macrodon trahira*).

(To be continued.)

THE mail has brought the sad news of the sudden and unexpected death of Mr. Thomas Foote, engineer at the Foundry, Whitehall, Barbados, at the early age of 39. Mr. Foote was the only son of the Hon. John Foote, of Antigua, member of the Federal Council of the Leeward Islands, and he was exceedingly popular in Barbados, where he had been since the war. He has left a widow and three children. We offer our sincere sympathy to his family in their great loss. He will be sadly missed by his many friends.

SPORT WITH ROD AND LINE.

How to Catch a Tarpon.

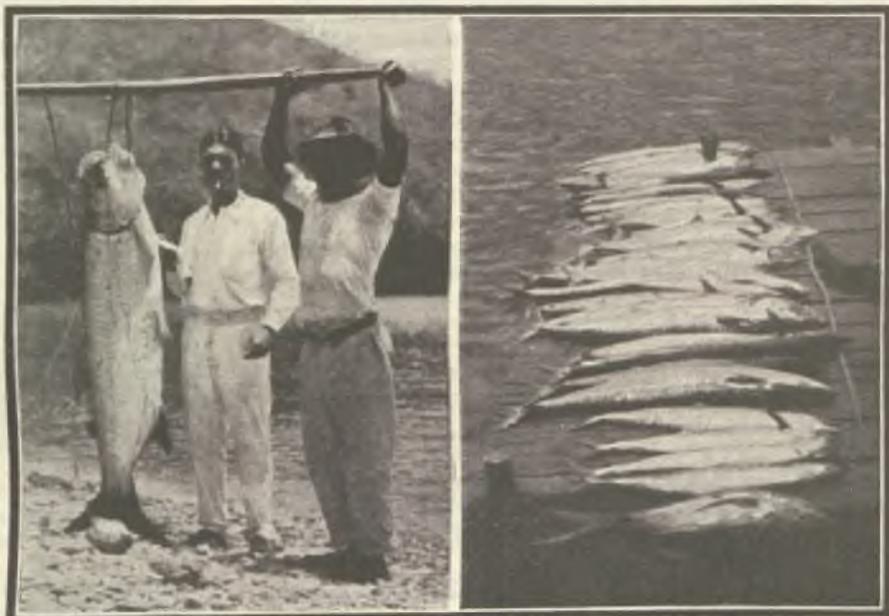
Captain G. R. G. Alston contributes to the *Illustrated Sporting and Dramatic News* of September 30th, through "Corrigeen," an interesting description of sport with the rod and line, which he and Mr. S. W. Fitt enjoyed recently in Saute d'Eau Bay, which the writer describes as being "off the north coast of the British West Indies." In two hours' trolling they landed 80 king-fish, 5 Spanish mackerel, and a cavalli. "Corrigeen" depicts a 76 lb. tarpon, landed by Mr. Henry Phillips, after 55 minutes in the Boca Huevos, and writes: "Capt. Alston comments on the fact that few tarpon are hooked and fewer landed, and as a sportsman naturally expresses the lament that the right way to fish for them has not yet been discovered in Trinidad. I wonder whether he has made himself familiar with the method of angling adopted by the Aransao Pass Tarpon Club. The founder of the club was Mr. L. P. Streeter, of Illinois. His success with tarpon where others failed was in fishing with light rods and tackle. He was laughed at by old tarpon anglers at first, but Streeter had the last laugh; it marked a revolution in tarpon fishing. The orthodox rod used when he came on the scene was six or seven feet long, and weighed over sixteen ounces. The line was 21 thread, with a breaking strain of forty-two pounds. Streeter used a rod nine ounces in weight and a line nine thread. No one is qualified for membership of the club who uses a weapon heavier, a line stronger. In 1901, of 16 tarpon caught the rod proportion was 1.2 per cent.; in 1911, of 478 tarpon the rod proportion was 65.8 per cent. There are record catches of 255 to one rod, over 300 to another in a season; 112 tarpon were landed by six anglers between April 21st and May 19th, 83 being over 100 lb. Such has been the effect of fishing fine. An adjustable reel is now made which regulates the line to any tension. The old method of pulling against the fish has given place to giving it its head under proper control and playing it out.

"We have found out the mistake of using heavy rods and tackle for salmon, and their loss in proportion. Here is the same error being rectified in tarpon fishing. I notice that Capt. Alston hooked and lost both his on spoons. This of all bait is the most likely to be torn from a fish's mouth with rough handling. I hope the Trinidad anglers will

fish fine, let their fish play more, and not be in too great a hurry to gaff them. That will probably prove to be the 'way' of landing the 'wonderful fighters' of which they are in search."

ORDER THE NEW MAP NOW!

Judging by the fact that over two-fifths of the present edition of The West India Committee New Map of the West Indies has been sold out—and in less than six months—the stock on hand will soon be exhausted. Already orders have been received



Mr. Harry Phillips, of Trinidad, Part of Captain Alston and Mr. Fitt's two-hours' Catch.

from the following countries and places:—Antigua, Bahamas, Barbados, British Guiana, British Honduras, Jamaica, St. Lucia, Tobago, Trinidad, Turks Island, the United States, Canada, Holland, Denmark, Cuba, Dutch Guiana, St. Thomas, and Curaçao.

The original edition of this map, published in 1914, was quickly disposed of in spite of the war, and there were fully 50 people who ordered "too late." The New Map ("More than a Map") is a great improvement on its predecessor, and to avoid disappointment, readers will be well advised to obey the "command" heading above.

The price of the Map, which is obtainable from The West India Committee, 14, Trinity Square, London, E.C.3, is as follows:—

	Price	Post Free U.K.	Post Free W. Indies.	Other Countries.
Sheet	7/6	8/6	9/6	10/6
Mounted and folded ...	15/-	15/6	15/6	15/6
Mounted on rollers ...	12/6	14/-	19/-	*

*Canada 22/-; elsewhere according to destination.

SEA ISLAND COTTON POSITION.

Declining Exports from America.

Those interested in Sea Island cotton cultivation in the British West Indies will receive encouragement from the latest statistics regarding American production. The boll weevil, which in recent years has increased so rapidly that only 5.4 per cent. of the 1921 cotton crop of the Cotton Belt in the United States was produced in the uninfested area, has not left Sea Island cotton untouched. Annual production of the Sea Island cotton in the United States during the period of 1910-1917 averaged about 92,000 running bales, but since that time the crop has been much lower—in 1918 amounting to 52,208 bales, in 1919 to 6,916, in 1920 to 1,868, and in 1921 to 3,816 bales. While the war had its effects on exports of Sea Island cotton from this country, it was principally the ravages of the boll weevil, the bollworm, and other cotton pests that caused shipments to decline. The downward trend of exports during recent years is seen in the following table published in the commerce reports of the United States Department of Commerce:—

United States Exports of Sea-Island Cotton.

Years.	England.	Canada.	France.	Germany	Other countries	Total.
1910:						
Bales ...	24,463	—	5,021	667	50	30,201
Pounds ...	9,142,243	—	2,037,169	220,025	20,840	11,460,277
1911:						
Bales ...	15,212	444	5,021	615	330	21,622
Pounds ...	5,739,642	175,838	1,925,330	241,156	129,881	8,214,847
1912:						
Bales ...	19,648	337	6,607	230	50	26,872
Pounds ...	7,284,192	143,131	2,557,619	89,096	18,980	10,693,038
1913:						
Bales ...	5,913	145	4,799	385	—	11,243
Pounds ...	2,628,437	54,797	1,600,594	128,642	—	4,412,470
1914:						
Bales ...	13,022	1,135	4,326	285	418	19,186
Pounds ...	5,034,393	441,956	1,662,424	110,731	170,931	7,420,465
1915:						
Bales ...	1,972	2,482	—	624	1,510	6,158
Pounds ...	717,845	854,465	—	249,211	616,083	2,437,602
1916:						
Bales ...	1,863	2,257	—	—	97	4,217
Pounds ...	755,392	938,494	—	—	37,910	1,731,796
1917:						
Bales ...	1,573	436	—	—	362	2,311
Pounds ...	642,525	181,820	—	—	148,519	943,864
1918:						
Bales ...	910	1,718	—	—	4	2,632
Pounds ...	373,646	681,445	—	—	2,050	1,057,147
1919:						
Bales ...	831	4,469	312	—	440	6,052
Pounds ...	315,239	1,860,079	138,572	—	178,247	2,492,137
1920:						
Bales ...	414	1,396	559	—	—	2,369
Pounds ...	162,386	556,377	236,023	—	—	974,786
1921:						
Bales ...	171	30	16	—	—	217
Pounds ...	64,794	11,419	8,168	—	—	84,381

Prior to the Great War the United Kingdom, France, Germany, and Canada were the principal buyers of American Sea Island cotton, although Russia in Europe took 400 running bales in 1914. Beginning with 1915, however, shipments to these countries with the exception of Canada either stopped or greatly declined. But new, though small, outlets were found, especially in Europe, Italy taking 314 bales in 1915, 60 in 1916, 120 in 1917; and Netherlands and Sweden in 1915 buying 377 and 311 bales, respectively. The next year 20

(Continued at foot of next column.)

THE BRITISH GUIANA TARIFF.

Increased Import Duties.

The Governor assented on 31st August to an Ordinance (No. 16 of 1922) amending the rates of Customs duties. By it a surtax of 10 per cent. is imposed as from that date on each of the duties in the first schedule of the principal Ordinance (No. 21 of 1921), except in the case of the duties on spirits and strong waters, tobacco and wines, and matches, and on gold bullion, balata, rubber and other substances of a like nature coming from Venezuela. This surtax is in addition to the 15 per cent. surtax authorised by the principal Ordinance. On the duties enumerated in the second schedule to the principal Ordinance, a surtax of 20 per cent. is now imposed in addition to that of 80 per cent. authorised by the principal Ordinance.

The actual rates of duty on some of the principal articles imported are now, therefore, as follows:—

	British Dollars.	General Tariff. Dollars.
Aerated waters, per doz. bottles...	0.20	0.40
Beer, ale, stout (in bulk), per gallon	0.375	0.625
Bricks, per 1,000	2.50	5.00
Cement, per barrel of 400 lbs.	0.25	0.50
Coal, bituminous, per ton	0.3125	0.625
Coke and patent fuel per ton	0.625	1.25
Fish, tinned or canned, per 100 lbs.	1.25	2.50
Ghi, per 100 lbs.	1.25	2.50
Flour, of wheat or grain other than corn, per barrel of 196 lbs.	1.125	1.4375
Rice, per 100 lbs.	0.375	0.70
Lime, per ton	1.25	2.50
Matches (in boxes of not more than 100 matches each) per gross of boxes	1.25	2.50
Beef and pork, pickled and salted, per barrel of 200 lbs.	1.25	2.50
Bacon, hams and tongues, per 100 lbs.	1.25	2.50
Petroleum spirit, per gallon	0.0625	0.125
Paints, per cwt.	0.75	1.50
Brandy and gin, per proof gallon	4.00	5.00
Whisky and rum, per proof gallon...	5.00	5.60
Bay rum, per liquid gallon	0.50	1.00
Methylated spirit, per liquid gallon	0.50	1.00
Cigars and cigarettes, per lb.	2.50	5.00
Tobacco, manufactured, per lb.	1.25	3.50
Wine, sparkling, per gallon	1.80	2.25
Agricultural machinery	Free.	Ad Valorem.
Machinery for electric lighting, rail- way plant, mining, drainage, saw- mills, rice preparation, Bauxite works, etc., steam dredgers, etc.	Free.	7½ p.c.

bales were shipped to Brazil. In 1917, 378 bales went to Spain and 200 bales in 1919, while Switzerland in the latter year took 240 bales. Short crops have of late years resulted in small exports being made, only 217 running bales being sent abroad in 1921 and 230 bales up to July 31st during the current year.

THE "CAMERA AGRUMARIA."

Co-operative Efforts in Sicily.

It is stated that the Camera Agrumaria of Sicily still holds upwards of twenty thousand tons of citrate. This represents several years' normal supply of the markets of the world and until it is disposed of there is little hope of any substantial improvement in the demand for West Indian lime products.

It may be of interest to recall that the camera was formed in 1908 with the following objects:—

1. The study and promotion of action for the development and regulation of the trade in citrus and its by-products.

2. The furnishing of information to those interested as to the condition of the principal markets and on the quantities of fruit in stock or in store.

3. Facilitation and promotion of relations for direct sales between producer and consumer of citrus and by-products.

4. To develop the use of by-products of the citrus, the seeking out of new markets or new uses.

5. To provide, on behalf of those producers who require it in accordance with the forms established by the present law, for the sale of citrate of lime and the raw juice which have been consigned by the producer to the Chamber for such object.

6. To promote, where necessary, for the institution of general warehouses for the deposit of citrus by-products in the centres of production unprovided with such.

7. To promote and facilitate the institution and working of citric acid factories, candied fruit and other by-products of the citrus.

8. To promote the constitution of a Banca Agrumaria to make advances on the deposits to producers of citrus industrialists. The attributions under (5) and (6) can by Royal Decree be extended to other by-products of the citrus.

The principal product of the lemon industry in Sicily is citrate of lime, and it may be pointed out that that commodity is made from either limes or lemons, the word "lime" in the name denoting the material—chalk—which is impregnated with lime-juice or lemon-juice, and not the fruit. Citric acid is extracted from citrate of lime, and is largely used in the manufacture of non-alcoholic beverages.

Just before the war there was a great development of agricultural co-operation in Russia in every branch of agricultural co-operative societies and unions existing for the production and sale of agricultural products. Indeed, as Professor N. P. Makaroff states in *World Agriculture*, the greater part of the economic life of Russia was conducted co-operatively. The system developed enormously in the years 1917-20, when the organisations were taken over by the Central Government and membership made compulsory. In April, 1921, freedom of action was restored to the societies, which, judging by the volume of business done by them, are entering into a period of still greater usefulness.

PERSONAL NOTES.

MR. JOHN MARTIN has been made a partner in the firm of W. F. Gouda & Co., West Indian merchants.

* * *

MR. FRANK H. TOWEND, who has been associated with the firm of C. Czarnikow, Ltd., for nearly 50 years, retired from the Board of Directors of that Company, on September 30th. Mr. L. F. Woodforde has been elected a Director in his place.

* * *

COLONEL W. C. ANDERSON, D.S.O., Deputy-Inspector-General of Constabulary of Trinidad and Tobago in 1917-18 leaves Plymouth in the *Navarre* on October 16th for Dominica, where he will superintend the management of the estate of his brother, the late Captain Abdy F. Anderson.

* * *

THE body of Sir James Hayes Sadler (formerly Governor of the Windward Islands), who died in April last and was buried in Brittany, has been brought to England, and was recently reinterred in Machynlleth Churchyard, Montgomeryshire, in the same grave as Lady Sadler, who died three years ago.

* * *

MR. CHARLES W. DOORLY has been appointed Assistant Colonial Secretary of Jamaica in the place of Mr. R. Nosworthy, who is Acting Administrator of Dominica. Mr. Doorly, who started his Civil Service career in the Immigration Department of Jamaica in 1892, has been since 1913 Government Emigration Agent at Madras.

* * *

DR. ALLAN KIDD, late of St. Lucia, has met with a tragic death in Colombo, where, since June, 1921, he had been medical superintendent of the General Hospital. According to the *Ceylon Observer*, it would appear that he had lately been in indifferent health and much worried by charges made against the hospital administration following the death of a European in the pauper ward. On August 27th, shortly after Dr. Kidd had returned from a brief holiday, one of his colleagues noticed that he had been an unduly long period in the bathroom. The door was eventually forced, and Dr. Kidd was found to be bleeding from wounds in his left arm.

* * *

First-aid was rendered, but the Doctor eventually expired through hæmorrhage and shock consequent upon the wounds, which the coroner at the inquest found to have been self-inflicted. The coroner added that he thought that the deceased had worried himself unnecessarily, and the better elements of public and Press alike subsequently testified to his devotion to his work and his consideration for his patients, whose well-being was his constant thought. At the funeral Dr. J. F. Bridger, late of Barbados, was one of the bearers. Dr. Kidd's untimely end will be the subject of much regret in the West Indies, and especially St. Lucia.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The Louisiana Experiment Station has been experimenting for some years with the value of sweet clover (*Melilotus indica*) as a cover crop for canes. The results show an increase of about 4 tons per acre of canes compared with canes where no crop of this description has been used.

* * *

Nicko's for July gives some interesting details as to the banana industry in South Queensland. In 1919, the average shipments by train for May and June were 1,601 cases. The following year these had increased to 1,928 cases, and in 1921 to 7,043 cases, while in May and June of the current year 10,758 cases have been shipped.

* * *

Lord Clinton, addressing recently the Aberdeen Branch of the Royal Scottish Arboriculture Society, stated that the recommendation in the Geddes Report as regards reforestation by the Forestry Commission was to be accepted in a modified form, to the extent of the sanctioning of the planting of 10,000 acres in the United Kingdom instead of the original programme of 30,000 acres.

* * *

July *Nicko's* also is enthusiastic on the subject of the general industrial value of the pineapple. Apart from other value virtues, its therapeutic worth is considerable. From the juice, it is stated, a tincture is obtained, 25 to 30 drops of which, taken after meals, furnishes a digestive unequalled in the whole Pharmacopæia, while the pure juice is a reliable agent for dissolving accrosed tissue in quinsy, tonsillitis, boils, diphtheric throat, and other like troubles. The tincture is also stated to be useful in cases of chronic tonsillar abscesses and in strepto- and staphylo-infection of the throat.

* * *

During the last ten years there has been a great increase in the Venezuelan cacao industry, upwards of 5,000,000 trees having been planted in this period on the Venezuelan side of the Gulf of Paria. The United States Consul in Trinidad states that the results have been highly satisfactory, the average yield being 4 lbs. of beans per tree, which command about 10 per cent. higher price than that paid for Trinidad cacao. The cacao from this district is shipped through Trinidad, and the exports to the United States amounted to 3,300,000 lbs., of the value of £120,000, in 1920, and to 4,616,000 lbs., of the value of £22,000, in 1921.

* * *

The attention which has been paid to the cacao industry on the Gold Coast has caused the oil palm industry to be neglected, and the Director of Agriculture of the colony has issued a manifesto on the subject, which *African Industries* summarises. Mr. Tudhope states that at the present time palm oil products to the value of £1,000,000 go annually to waste in the Gold Coast alone. To remedy this state of things, he proposes the formation of co-operative associations among the farmers for the construction of central factories to work up the fruits. A weak point in the scheme appears to be

the absence of a Government Agricultural Credit Bank.

* * *

In experiments with plant canes conducted in Queensland to ascertain the effect of the various elements, nitrogen, potash, lime, and phosphoric acid on canes irrigated and not irrigated, it was found that the most effect was obtained in the case of the former. With non-irrigated canes, the increase on the non-fertilised canes was 0.1 tons of sugar grown per acre in the case of phosphoric acid, 0.3 ton with potash, and 0.4 ton with nitrogen, lime producing a deficit of 0.1 ton. In the case of the irrigated canes, the increase was 0.2 ton per acre with lime, and 0.8 ton per acre with potash and nitrogen. Phosphoric acid gave a deficit of 0.1 ton per acre.

* * *

Dr. Arthur Schamel, of the United States Department of Agriculture, is carrying out a series of experiments in Louisiana having for their object the improvement of the cane by stool, rather than by individual stalk, selection. So far the results are stated to be promising. The theory of the system is that a stool of canes may as a whole be inferior, although containing one or more markedly healthy individuals, the planting of which may lead to disappointment. If, however, the stool as a whole is superior, there is a better chance of the members of it producing improved offspring. Thus Dr. Schamel prefers to plant the stool rather than the individual cane.

* * *

Syrup-making from the sugar-cane is one of the minor industries of Alabama. According to W. C. Vail, in *Facts about Sugar*, a purple cane is the one almost invariably grown, the area cultivated by the individual farmer varying from one to fifteen acres. The cane is a very sweet one, the sugar content ranging from 16 to 19 per cent. The crushing is done in almost every instance by horse-driven mills, the juice being skimmed and concentrated in an ordinary evaporating pan. In a few instances a small quantity of lime is used, but Mr. Vail states that "all guess at what they are doing." The yield of syrup is about 250 U.S.A. gallons per acre, and the average annual crop dealt with 500 acres.

* * *

The chief insect pest just now in the Philippines in connection with sugar, which is causing great apprehension as regards the coming crop, is the locust, and a full description of its habits, customs, and of the methods of its control is given in the *July Sugar News* of those islands. The power of reproduction of the locust is enormous, and, on account of its gregarious habits, it is quite possible for from 200,000 to 300,000 young locusts to be hatched from the 4,000 to 5,000 egg clusters which is the average extent of egg deposition per square metre. Its cannibal habits also constitute an important factor in its destruction when arsenical sprays are used for the purpose, for as soon as the first insect in the van of the swarm becomes affected by the poison, he is devoured by those which follow, which in their turn are killed by the poison in the first body, and this may go on for three or four cycles, until the arsenic becomes too distributed to be fatal.

WEST INDIAN CLUB DINNER.

Mr. Rowland Darnley's Epigrams.

Mr. E. R. Darnley, Assistant Secretary and head of the West Indian Department at the Colonial Office, was entertained by the members of the West Indian Club at the Club Rooms, 4, Whitehall Court, on September 27th :—

Mr. G. Moody Stuart, who presided, in proposing the health of the guest, said that Mr. Darnley had had a distinguished career at Cambridge and become sixth Wrangler. He was now Assistant Secretary at the Colonial Office (twenty years after he had entered it, and Head of the West Indian Department. He was one of the Governing Council of the West Indian Agricultural College, and his knowledge of science and of University affairs, as well as his other qualifications, had enabled him to render most valuable services to that Council. For The West India Committee he had performed numberless services. All who had matters to bring before him knew his readiness to listen to and to understand their affairs, and to think out and carry out what might be wise and right, without shirking of work or shrinking from responsibility. In the words of a time-honoured phrase coined in old days for King David, he showed always the desire to "serve his own generation." It was not only in important departmental matters where he showed his willingness to help, but in what might be called minor personal matters also.

The ways of Dickens' Circumlocution Office might have been modified in these days, but something of its spirit still survived, and we could not be sufficiently thankful that there was not a trace of it in Mr. Darnley. Now one in a Government Office who really helped, who really served his generation, was worthy of double honour, for it could be no easy matter, and the recognition of the difficulties in the way of Government servants giving good work, he believed, had done more than anything else to check the movement towards a Socialist Constitution, for under Socialism all of us would be Government servants.

One thing required to put Mr. Darnley in the best position for dealing with the affairs that came before him, was that he should visit the Colonies. One visit was not sufficient. His own experience had been that a second visit did not double one's insight, but increased it fourfold. On the first occasion one might be led to take a man at his own valuation. The result of a second and third visit combined had sometimes led him to throw overboard a great many of the impressions that he had formed on the first visit. Another point was that the stay in any one place must not be too short. He did not believe much good came of less than a week in small places and three weeks in the larger. If Mr. Darnley decided to make such a visit, why not start next December? He could assure him of a very hearty welcome everywhere.

Responding to the toast of his health, which was received with enthusiasm, Mr. Darnley warmly thanked Mr. Moody Stuart for his kind remarks, and said that it was something like a quarter of a century since he had spoken in public, and in these circumstances he had provided himself with copious notes. By so doing he hoped to avoid slips of the tongue, at the risk of falling into slips of the pen. As an example of the latter he mentioned a letter which had been recently dictated in his Department, ending, "Kind regards to Mrs. X, and kiss the baby for me." When the typewritten copy arrived, it ran, "Kind regards to Mrs. X, and kiss the lady for me." Another example was

a letter from a candidate who wrote to the Colonial Office :—

"Sir.—I beg to enquire whether there are any vacancies in Colonial asylums, at present, and if not whether my name could be put on the waiting list."

Another letter, of genuine West Indian origin, would seem to indicate a slip of the temper. Mr. Darnley read the letter, which contained a challenge to a duel, couched in language both formal and ferocious.

Without disclosing the name of the writer of this bellicose epistle, he could assure his hearers that this was not the document sent by the Governor of British Honduras to Sir Samuel Hoare on the occasion of the latter's libels on the Colony. The language of Sir Eyre Hutson's document had been more parliamentary, but scarcely less trenchant, and the duel, verbal or otherwise, had been only prevented by the Secretary of State, who intercepted the challenge! That Governor was not a man to be trifled with, but recent events in the Colony had somewhat softened his attitude.

After these incidents one felt that the Dutchman in Guiana who named his plantation "Peace and Hope" was rather optimistic. But there had always been plenty of variety in the West Indies. There was the island whose first godfather called it Santa Maria de la Concepcion. Its second godfather was of a different turn of mind and re-christened it Rum Key, which he supposed represented progress.

Where genuine progress, however, had been made was in the application of science to agriculture and forestry. The most backward industry of all, in this respect, namely, forestry in British Honduras, was at least likely to be placed on a scientific basis. Elsewhere they had active and thriving local Agricultural Departments, the Planters' Association in British Guiana, which was greatly extending its activities, and the Agricultural College. The College was a vigorous youth which had been rather expensive to bring up, and was only just getting old enough to work. But having regard to his parents, they could confidently expect a great deal of him.

"Some people in this age," Mr. Darnley continued, "are in danger of forgetting the wise advice of Burke, to the effect that life and policy ought not and cannot be reduced to terms of mere economics. Let us glance for a moment at the West Indies in the fields of literature and history, music and sport. I cannot attempt to review the immense bulk of older books, but I may just refer to the considerable figure which the West Indies cut in Smollett's 'Roderick Random' and Michael Scott's 'Tom Cringle's Log,' and to Lafcadio Hearn, the most vivid and intimate writer of them all. More recently, we may look with satisfaction on Im Thurn's books about the Guiana Indians, the many good articles in Timchri, De Lisser's novels of Creole life, Cundall's historical studies, and Aspinall's descriptive and topographical handbooks which have made the ways about the West Indies easy and interesting to so many. In this crew the Lesser Antilles hardly seem to pull their weight. The Dante and Doré of the Soufriere and the Pitch Lake have yet to appear; and the imprisoned Shakers of St. Vincent have not produced any Bunyan. The literature of the West Indies is very rich in historical works, and this is well illustrated in a letter in THE WEST INDIA COMMITTEE CIRCULAR from the pen of Mr. J. Graham Cruickshank. There were some good artists in Jamaica in the old days, but although I go to a good many picture shows I have not been fortunate enough to find any West Indian pictures there. Here is a little-worked field of great attractions. Beckford, himself no mean artist, said, 'I must decide in favour of the rich and magnifi-

cent scenery of the West Indies, in preference to any rural appearances I have observed in other countries; and I should dwell with more pertinacity upon this opinion, were they, by contrast, more observed and better known.' While the American lady in Dominica remarked, in another style, 'Gee! I feel real giddy; I never was so stuck on anything in my life.' Mr. Wiseman's sentiments were, I believe, of regret that

'Such a fair isle needs must lie
In a deep, wide sea of misery.'

But then he had had a bad passage.
As regards sport, there had been nothing recently equal to the exploits of the West Indian cricket teams which won so many matches in this country about 20 years ago. But it would not be Mr. Morrison's fault if something of the kind did not soon recur.

Mr. Darnley next referred to the important results of Mr. Wood's visit, and remarked that these days would long be remembered in the West Indies as the era of constitutional reform.

whole group of Colonies—who, from being local politicians, have grown into West Indian statesmen. We need not look far to find some such men, but it seems to me that we need many more.

"I feel sure that you will agree with me that, if the West Indies wish to be regarded, as they ought to be regarded, not as isolated and insignificant islands and territories of the Caribbean, but as a great province of the Empire, they must learn to co-operate more intimately in matters of common concern—they must learn to speak with a common voice."

The health of the Chairman was proposed by Sir Gilbert Grindle, K.C.M.G., C.B.

THE DEADLY HOUSE-FLY.

Sir Arthur Shipley's statements as to the house fly being the source of typhoid, diarrhoea, and other diseases and complaints would find striking

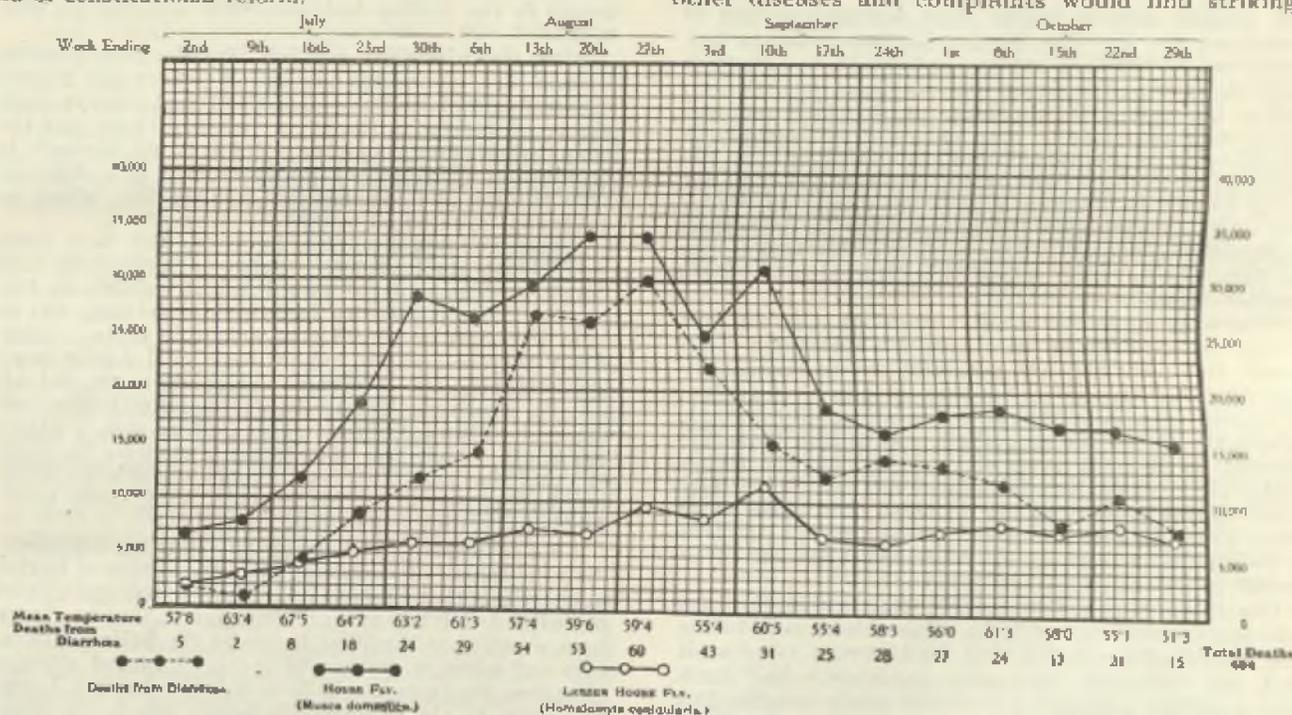


Chart illustrating the relation of the numerical abundance of house-flies to summer diarrhoea in the City of Liverpool in 1921.

Mr. Darnley continued that he would not waste words on schemes of general federation. Co-operation was, however, another matter. Those who had walked a couple of hound puppies knew the effect of putting them on a leash. The only thing which produced a transient unity was the sight of a toothsome bone. Let them imagine half a dozen on one leash and they would get some idea of the unedifying spectacle which was occasionally presented when the West Indies were about some common enterprise.

Referring to the schemes which were in view for a new all-British cable and for the reform of the currency system, Mr. Darnley concluded:—

"Among schemes of this kind, involving general co-operation, we have already witnessed the rejection of several good ones; and the fate of even the best of them will always be uncertain until there are many more men who habitually look beyond the shores of their own islands—who have a clear vision over the

confirmation—if that were needed—in the report of the Medical Officer of Health of the City of Liverpool for the year 1921. Dr. Hope, the official in question, publishes a diagram showing the connection between the House Fly and deaths from diarrhoea which demonstrates anew that, as the flies become more abundant, the mortality increases to a corresponding extent, and vice-versa. It will be noted that the diagram (reproduced on this page) bears a close resemblance to the one reproduced with Sir Arthur Shipley's article in The WEST INDIA COMMITTEE CIRCULAR of July 20th, which recorded results in Manchester in 1904. Who, after studying these diagrams, would venture to disbelieve that the House Fly, so unpleasantly prevalent in some parts of the West Indies, is the harbinger of disease?

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbados' Favourable Crop Prospects.

Writing on September 20th, Mr. J. H. Wilkinson reports that during the previous ten days there were nice rains throughout the Island, in some places over six inches being recorded in one week. The canes have immediately responded, and with favourable weather for the balance of the year, the 1923 crop will still be a good one. Some parishes have, nevertheless, suffered very considerably, notably the top part of St. Philip, also part of Christ Church, where the canes were almost dying and cannot be expected, even given the most favourable weather, to show a good return next year; but on the whole the Island has a better crop, in Mr. Wilkinson's opinion, than at this time last year.—The new theatre is nearing completion, and Mr. Rosenthal, the owner, hopes to be able to open it to the public by the middle of October. It is a very fine building and supplies a long-looked for requirement.—The oil company has been successful in obtaining a large supply of water at the Belle, and it is understood, the water has been tested and found suitable for drinking purposes, so that it would seem that if the Government now take the matter properly in hand, within a reasonable time there should again be a good supply in the Island.—The Lamport and Holt line of steamers are again making Barbados a port of call in their northern and southern voyages between America and Brazil, and the *Advocate* expects that there will be a large number of visitors passing through here during the Brazilian Centennial Exhibition.—Dr. Dalton left the Island on September 6th, on his resignation from the Headmastership of Harrison College, a post which he had held for sixteen years. Two days previously he was the recipient of the presentation of a cheque on behalf of the Parochial Council, with an accompanying address read by Mr. E. B. Skeete, in token of their appreciation of the voluntary services he had rendered to the cathedral. Dean Shankland said that Canon Dalton's simplicity of manner, his unfeigned humility, his unflinching courtesy and kindness explained the character of the "scholar-priest" whom they had grown to love. Tributes were also paid by Mr. H. W. Loft, and Mr. G. B. R. Burton.

Disposal of British Guiana Sugar Estates.

Three sugar estates were offered at auction by Mr. Percy Wight on August 31st, but in each case the reserve price was not reached. Plantation Hope, belonging to the British Guiana Sugar Factories, Ltd., with an area of 3,059 acres, of which 818 are under cane cultivation, 235 under rice, and 120 acres under coconuts, was withdrawn when the bidding had risen to \$10,000. The highest bid for Plantation Cove and John, East Coast (2,000 acres, of which 792 acres are under cane) was \$20,000, whilst \$22,510 was offered for Plantation La Bonne Mère, Mahaica, which has an area of 1,200 acres, of which 450 are under cane cultivation.—The question whether a Trade Representative's Office for the West Indies should be established in London was discussed by the Georgetown Chamber of Commerce on August 25th. The President (Mr. C. Farrar) is reported by the *Argosy* as having said that they would all agree that if they had some such department in London where specimens of the articles produced in the Colony would be kept

and exhibited, and where some individual would supply information in connection with the various articles it would result in very great value to the Colony. Major Wood recognised the impossibility of having an agent to represent British Guiana alone, and it was therefore a matter for the West Indian Colonies and British Guiana joining together. Mr. Cassels, Mr. Strickland and Mr. Smellie having expressed themselves as in favour of such a scheme, it was decided to communicate with the Government accordingly.—Mr. W. H. Cook, I.S.O., Superintendent of the Alms House and Secretary of the Poor Law Commissioners, has retired after 41 years in the Colonial Government's service.—Mr. R. H. Carr, Vice-President of the Northern Aluminium Co., and Chairman of Messrs. Sproston, who has returned to the Colony, proposes to put the plant and railway of the Demerara Bauxite Co. in order, with a view to starting mining operations again at an early date. The new manager of the Bauxite Co., Mr. B. Barnes, accompanied Mr. Carr.—At the Chamber of Commerce meeting on September 8th, a letter was read from Messrs. E. W. Turner & Son, of Liverpool, proposing the formation of a company to run a fortnightly passenger and cargo 14-knot service between the United Kingdom and the West Indies, the ships used to have considerable insulated space for fruit-carrying. Mr. C. Farrar, the President, remarking that it was unlikely at present that either a subsidy from the West Indian Governments, or the provision of local capital would be available for this project at the present time, the matter was left over for further discussion.

Captain Elwin's Death in Dominica.

The death took place on September 9th of Captain W. D. Elwin, M.A., Headmaster of the Dominica Grammar School and Sub-Inspector of Schools in the Presidency, and a member of The West India Committee.

Grenada's Agricultural Development.

The *West Indian* announces the deaths, on September 7th, of Mrs. E. R. Kerr, mother of Hon. D. T. Kerr, Acting Chief of Police, and of Mrs. A. W. Lewis.—A branch of the Agricultural and Commercial Society has been started at Sauteurs under the regis of Hon. D. S. De Freitas.—An ordinance assented to on August 19th (No. 17 of 1922) empowers the Governor to borrow through the Crown Agent, whenever authorised to do so, by means of Treasury Bills, for a denomination of £1,000 and multiples of that amount.

Chinese Immigration into Jamaica.

The question of the influx of Chinese into the Island continues to be much discussed locally. Mr. F. A. Judah, a City Councillor of Kingston, has put forward the proposal that the bond money (£30) lodged by each Chinese immigrant should be retained until his departure, the interest accruing therefrom being credited to the civic poor relief funds. Meanwhile the dictation test is being strictly enforced.—Major W. H. Plant, who has returned from a holiday trip to Canada, complains in an interview with the *Gleaner* that, owing to want of advertising, he finds that the regular sailings of the Government Mercantile Marine to Jamaica are quite unknown in Canada, even by those who should be principally interested.—Pen-keepers and butchers have sent a memorial to the Governor, petitioning for regulations restricting the slaughtering of meat to those who possess a licence to do so. They point out that it is open to any person

to slaughter stock at any time in any place.—The Governor has assented to a law (No. 7 of 1922) to extend for a further twenty years rights granted to the Direct West India Cable Co. in 1898, the rate to the general public for messages between the United Kingdom and Jamaica not to exceed three shillings per word during that time.—The proposal to amalgamate Kingston and St. Andrew is attracting a great deal of attention at present, and both sides are holding public meetings for and against the scheme. In the main, Kingston is in favour of the idea, and St. Andrew against. Whatever the outcome may be, it is hoped that the city will proceed with the long-delayed improvements which are vitally necessary. A conference of the Parochial Boards Association was held at the office of the Kingston General Commissioners on August 17th, to discuss the proposed change in the Constitution of the Parochial Boards, and subsequently the delegates lunched with His Excellency and attended a conference at Headquarter House.—The death is recorded of Mrs. Ellis Levy, wife of Mr. Ellis Levy, a very prominent member of the Kingston mercantile community.—In his report for last year, Major Lewis Thomas states that the year's working of the Government Railway resulted in a loss of £27,756, but that the train service has been brought up to a reasonable standard of efficiency, and many economies have been effected.

St Lucia's New Constitution.

The Advisory Board, consisting of Hon. W. V. D'gazon, Hon. George Williams, Hon. G. M. Peter, Mr. A. R. C. Mallet, Mr. L. T. Augier McVane, Mr. R. G. Westall and Mr. W. W. Palmer, met the Governor and the Administrator on September 8th to discuss the proposed new Constitution for St. Lucia. The qualifications of electors were decided upon as follows:—Net income of £50 and the ownership of real property to the value of £200 over and above all encumbrances. It was agreed that the Legislative Council, which should sit for three years, should consist of 12 members, 6 official members, 3 elected and 3 nominated members.

Income Tax in St. Kitts.

Considerable excitement has been manifested over the local Finance Ordinance, which was passed recently. Merchants protested against this measure on the grounds that it exempted the planters from taxation, and that with the surplus funds available in the Colony there was no need of an income tax at all. This protest they backed up by asserting their determination to close down their stores if necessary. Cabled correspondence then passed between the Administrator and the Governor, in which the latter pointed out that the Colony's revenue was far from being in such a favourable state as it was sought to make out, that fresh taxation was imperative, rendering necessary a poll-tax, if other sources of revenue failed, and threatening that if the stores closed down, the Government would themselves open a provision store in the Customs building to supply the inhabitants' needs.

Trinidad's Banned Imports.

The Governor, under the Plant Protection Ordinance, 1919, has prohibited the importation of cacao plants and beans from any part of the mainland of South America, except cured cacao beans from Venezuela and Colombia, and of all cotton seed, seed cotton and ginned cotton, except under a permit issued by the Director of Agriculture.—Remarkable disclosures con-

cerning the trip to England last summer of Mr. W. H. Bishop, Secretary of the Trinidad Working Men's Association, came to light during the hearing of an action for damages against a motor-car proprietor by a member of the Association. During the visit, Mr. Bishop was entertained by the English Labour Party, to whom, according to a letter from him which was read in Court, he reported a loss of over £100, and was accordingly advanced money. Now, however, he admitted in cross-examination that the extent of his loss was about £13.

At a meeting of the Legislative Council on September 15th, the Governor stated that he concurred in the report of the Special Committee which recommended the establishment of an Agricultural Bank, and he was forwarding the report for the Secretary of State's approval before introducing legislation for the purpose.—Mr. F. R. Cutler, Acting Collector of Customs, introduced in the Legislative Council on September 15th amendments increasing certain of the duties in the Customs Ordinance. He stated that the policy of freeing British foodstuffs by heavy duties on luxuries had not brought all the revenue desired. After mature consideration, it had now been decided that it was preferable in order to carry on essential public works and thereby give employment to a large amount of labour, and to meet other expenditure, to revise the Customs tariff with a view to obtaining more revenue, taxing luxuries to their highest limits and touching necessities of life, foodstuffs, etc., as little as possible. He estimated the present changes would bring in £100,000.

New York Waters Grand Turk.

Water was still being brought from New York when the latest report of the Direct West India Cable Co. was written, the continuation of the drought causing the water question to be a serious one. During what are usually regarded by shipping interests as the "hurricane months" in this part of the world, business has been very quiet. In the Caicos group, all vegetation has dried up, so that without sweet potatoes and yams, etc., the inhabitants are in a bad way. Fortunately, employment has been found for the men by the Hull Line of steamers, whose steamers now call at Cockburn Harbour for labourers. Cotton reports are favourable. Large shipments of dried conchs are being made to Havti. The sponge business appears to be brightening up, and shipments are being made to Nassau and New York. Quantities of sisal are being hand-cleaned in the Caicos Islands for shipment to the United States, where, however, it does little more at present than cover expenses.

Tobago's Political Activity.

Mr. Robert S. Reid, writing under date September 12th, states that on September 4th a public meeting was called by the Scarborough politicians and others, and a resolution was passed in favour of Tobago having an Elective Representative on the Legislative Council (on the same conditions as the other wards of Trinidad and Tobago). On 6th inst. His Excellency the Governor presided at a meeting of the leading inhabitants, called at his request. At this meeting the resolution of the previous public meeting was presented and unanimously endorsed. Captain Short, of Richmond, suggested that, besides a representative at the Council, Tobago should have a Commissioner-Warden with advisers from the three districts to inform him as to the needs of the Island, and that the Commissioner should be a member of the Executive Council. His Excellency, in reply, said he would have

pleasure in conveying the resolution of the meeting to the Government, and that Captain Short's and other suggestions would receive his careful consideration. The Governor's opening speech and closing remarks were received with cheers, ending with the singing of "God save the King."—The Governor visited various departments and public institutions, and left for Port of Spain by R.M.S. *Belize* on the 7th. It is worthy of note that the Governor and party and some others motored from Port of Spain to join the *Belize* at Tozo, and arrived at Scarborough in about eight hours from Port of Spain. It only requires a frequent service between Tozo and Scarborough to bring Tobago into very close touch with Trinidad, and no doubt this matter will be considered when funds and circumstances permit.—The Jury Sessions were also held at Scarborough on September 6th. There were three cases for trial, one being for murder, the first case for many years in Tobago. The jury failed to agree, and this unfortunate case is postponed till next sessions.—The weather has been piping hot for the last two weeks with very light winds, chiefly from W. and S.W. The light showers were not sufficient to keep earth or air cool, and a three inches downpour on 10th inst. was most acceptable.

GEOLOGY OF BRITISH HONDURAS.

"Petroleum not Worth Considering."

Mr. I. H. Ower, the Government Geologist of British Honduras, has drawn up a report on the results of his first year's investigations into the geological conditions of that Colony. He states that British Honduras "being only a small coastal patch of Central America," he has included some observations made in the adjoining republics of Mexico and Guatemala. Viewed from this larger standpoint, the outstanding feature is the great deposit of limestone that extends from near the mouth of the Rio Hondo right along the Mexican and Guatemala junction to meet the sea again at Livingston. This limestone extending into British Honduras covers a large portion of the Colony, but future work will, Mr. Ower thinks, enable it to be subdivided.

Mr. Ower divides the geological formations in British Honduras as follows:—

- Recent alluvials, swamps, low-level pinebelts, and cays.
- Eocene limestones.
- Cretaceous Toledo beds.
- Jurassic granitic intrusions.

The metamorphic rocks now consisting of schists, slates and beds, quartzites and gneisses have undergone alteration of texture, and have been forced into a highly inclined position by the granitic intrusions. Numerous quartz reefs are found associated with those rocks. Samples of those rocks have been sent to England for assay for gold, and a more thorough investigation of these loads will be made next season. Almost any metallic mineral may occur in this type of country, but none have yet come to his notice. Although not so favourable as the metamorphics, the granite may also yield minerals.

Except for quarrying as a limestone the calcareous rocks which in place exceed 800 feet in thickness, are unlikely to be of economic value.

The Toledo beds may possibly contain minerals of commercial value, but the survey is not sufficiently advanced to warrant a definite statement.

On arriving in this colony, Mr. Ower states that he found the residents enthusiastic about the prospects of oil in the Colony, but he has not yet seen rocks that would serve as the source of petroleum or reservoirs for its accumulation, and nobody has yet come forward prepared to show him any seepage of petroleum products.

Mr. Wilmoth, the oil geologist recently sent out by the Scottish American Oil Co., has had the same experience, and Mr. Beeby Thompson makes similar statements in his report. The Mexican fields are 800 miles outside British Honduras, and the Guatemala seepages 85 miles. The Northern portion of British Honduras consists of alluvials getting thinner and more calcareous to the South Westward with the marls and limestones that join the North Eastern portion of the province of Peten (Guatemala) getting more prominent. It is believed that these beds are over 1,000 feet in thickness, and the only way to ascertain the underlying strata would be by boring, a process unlikely to be adopted without having very strong evidence of underlying mineral wealth. For this reason Mr. Ower is devoting very little time to the country between the Hondo and Belize Rivers.

After giving an account of the geological history of British Honduras as far as he is able to reconstruct it, Mr. Ower proceeds to sum up his recommendations for the present utilisation of the Colony's natural resources.

"Petroleum. Not worth considering under present conditions.

"Other fossil fuels. Unlikely to occur.

"Metallic minerals. Country favourable, but nothing of value to date.

"Non-metallic minerals. Possible—but nothing of value to date.

"Rare stones, earth, etc. Possible but nothing of value to date.

"Clays, limestone, etc. To supply local requirements only.

"Grazing.—By opening trails round the head of Sibun River, an area of about 650 square miles of well grassed mountain pine ridge, watered by permanent streams, could easily be given access to the coast at Stann Creek or Riversdale.

"Hydro Electric Power.—There are permanent mountain streams suitable for any local development and within reasonable distance of Belize or Stann Creek.

"The only route for a main railway is from Belize to Cayo as surveyed in 1896 over a level track without engineering difficulties. Peten could be tapped, but it is not a rich province. If any mineral or other development should take place in the Mountain Pine Ridge, a branch line should be run up the most convenient valley. Should the mahogany to the south of Vaca be sufficient to justify a railway, I suggest that an investigation be made of the feasibility of connecting this area by a tramway commencing at Seven Hills, Punta Gorda, and following the divide between the Rio Grande and Bladen Branch. This would also open up the country surrounding the Toledo settlement, which is some of the best agricultural land in the Colony. A small extension of the Riversdale tramway beyond the South Stann Creek gorge would give a large fertile valley easy access to shipping facilities."

THE TRAGEDY OF A GOVERNOR.

Sir Frederick Robinson's Ancestry.

Mr. V. L. Oliver, editor of *Caribbeana*, the publication of which all interested in West Indian genealogy hope may be resumed some day, kindly furnishes THE CIRCULAR with the following note regarding Sir Frederick P. Robinson, to whose distressing bereavements reference was made in last issue.*

The families of both Robinson and Philipse enjoyed great distinction in colonial society. Geo. Washington, too, was an intimate friend. Oliver Stephen Van Cortlandt, Secretary to the Dutch Governor of New York in 1629, was granted the extensive manors of Yonkers and Cortlandt, and died in 1699, leaving, with three sons, a third daughter Catherine, born in 1652, who married Frederick Philipse, a wealthy Dutchman, who emigrated to New York in 1658, where he patented lands on the Hudson River, known as Philipseborough, of 150 square miles, and Fredericksborough, of 240 square miles.† They had one son, Philip (born in 1676, died in 1700), in Barbados, who married in 1697 Maria, youngest daughter of Governor Sparkes of that island. Their elder son Frederick, born there in 1698, died at New York in 1750, having married, in 1726, Johanna, youngest daughter of Anthony Brockholes, Governor of the Province. They left two sons and two daughters, of whom Susanna, the elder one, who was born in 1727, married Colonel Beverley Robinson (son of John Robinson, President of Virginia and great-nephew of John Robinson, Bishop of London and Lord Privy Seal). She inherited from her father one-third of Fredericksborough, and her husband, being a prominent Loyalist, their property was confiscated, and they settled in Bath, where he died 9th April, 1792, aged 70, and she in November, 1822, aged 94. Their five sons all occupied prominent positions, two in New Brunswick and three in the British Army. Frederick Philipse Robinson, the fourth son, was a very distinguished officer. He was born in the Highlands near New York in September, 1763, entered the army at an early age, served with Grey in the West Indies in 1793, and later in the Peninsula and Canada, receiving the K.C.B. in 1815. He was gazetted Governor of Tobago on 13th February, 1816, Lieut.-General 1825, G.C.B. 1828, and General 1841, and died at Hove 1st January, 1852, aged 88.—[*Cent. Mag.*, p. 188.] His first wife was Grace, daughter of Tho. Boles, of Charville, who died in Pimlico in child-bed 27th May, 1806, having had a numerous family.‡ Sir Frederick then married, in 1811, Ann, daughter of — Fernihough, of Stafford, who died in Tobago in 1823.

Authorities: Sabine's American Loyalists, "*Cent. Mag.*," Burke's L. Gentry.

[A pedigree of Robinson appeared in the "*Virginia Magazine*," vols. xv. and xvi., and of Philipse, in the "*New England Register*," vol. x., which I have not seen.]

* THE WEST INDIA COMMITTEE CIRCULAR, NO. 626, page 446.

† The huge land grant of 390 square miles to the first Philipse settler was probably not worth much when the country was sparsely populated. In Antigua no grants were to exceed 1,000 acres—a wise provision to encourage settlers.

‡ Harriet whose tombstone is at Tobago, d. 1819 aged 10. b. 1809, three years after her mother's death, so there must be an error somewhere. Fred. Philipse R. probably a son was m. in 1819 at St. Geo., Hanover Sq.

THE GOVERNORS OF JAMAICA.

BY FRANK CUNDALL, F.S.A.

XII.—William, 2nd Earl of Inchiquin.

(Continued from page 456 and concluded.)

In July the Governor told the Council:—

"The cheife ends of my calling you together was that you might take due measures for your owne preservation in this troublesome time of warr, and the indemnifying of the Inhabitants of this Island (who have suffered by the invasion of the enemy) which you are bound to doe by your own Law: and to lay



The Arms of William 2nd Earl of Inchiquin, Governor of Jamaica.

Quarterly 1st and 4th gules three lions passant guardant in pale per pale or and argent for O'Bryen 2nd argent three piles meeting in point issuing from the chief gules 3rd or a pheon azure: Crest Issuing from a cloud an arm embowed brandishing a sword argent pommel and hilt or. Supporters: Two lions guardant per fesse or and argent. Mottoes *Vigueur de dessus* over the crest. The strong hand uppermost.

before you the exigency of the Government, in hopes you would have taken it so far into your consideration as to have enabled mee to doe something for your Protection & towards ye discharging of near £8,000 Debt incurred upon your Acet: most of it before my coming to the Island and some since. You have indeed past a bill for the raising of 4780 & odd Pounds towards the maintaining of a Sloop and repairing the Losses of the Sufferers. But (as it were with the same breath) you vote and pass a bill too in a matter the King had not taken into his consideration as Several of you know which I take to be a great disrespect to him besides that it intirely takes away his revenue, there not being any mention made that I can hear off in 7 or 8 weeks time that you have satt of any revivall for what was granted to the Crowne by the 21 years Act, or of any equivalent for it, Only I understand by a message I some time since received from you that you had once read and past a Bill for raising a duty of 40s. p. head upon negroes exported, something upon wine imported, the first is absolutely repugnant to the Commands I have received from the King (which is not unknown to many of you) & should it pass would in my Judgment be highly prejudiciall to the Kingdome of England and this Island, it being the greatest blow that can be given to trade,

which is the life of this place and which I am bound to encourage and Protect and will do it.

"And now you send me a message to desire the expediting of two Bills, the one tending to the destruction of ye Government, the other to the affronting of mee, neither of which (in my opinion) require so much hast as that for relieving—of the poor sufferers and the preventing of others from falling under the same calamities: But that Bill (it seems) you think fit to lay aside till you see what I will doe with the others, tho yesterday I sent you a message to press the expediting of itt which you vouchsafed to answer only with another message.

This is such a way of Proceeding that I cannot (in behalf of ye King, ye Government: all traders & ye Generality of the Planters, who I have a very good opinion of) but highly resent.

I wish you may never stand in need of that Justice and Charity which you have by these measures denied your poor neighbors but that GOD (who is a GOD of Justice as well as Mercy) will avenge the cause of the Poor upon them & theirs who have been the Oppressors of them.

"When I came to this Island I found a flame kindled among you, which I took some pains to quench and had in a great measure done it, but (since your meeting) I find some turbulent spirits have added new fwell, therefore to prevent the increase of a fire that may be fatal to the Island though you have a speaker and severall other among you whom I highly esteeme and am persuaded of their being well affected to the Government (since I cannot say so much of the Major part of you) I think it necessary in the King & Queens name to dissolve you and you are hereby accordingly dissolved.

But now I have further to say to you Gentn: yt. since you did not think it fitting to make a Congratulatory Address to so gracious a King as you have it is not fit for me to receive one from you, therefore there's your Address again!"

The minutes of the Council record: "And then it was thrown to them with some contempt."

Thus culminated the considerable opposition which Inchiquin had received from a section of the Assembly whose temper had been ruffled by Albemarle's arbitrary government, and whom he treated in a somewhat tactless manner. Disputes with the Assembly, added to troubles arising from incursions by French cruisers on the seaside plantations, the result of the war, plunderings by the runaway slaves, the original maroons, and an outbreak of slaves in Clarendon undermined his constitution. After nineteen months of worry, he died on Saturday, January 16th, 1691-2, "after long indisposition through fever and plague which ended in a flux," and was buried that night in the parish church of St. Jago de la Vega. Until recently there had been nothing to mark the spot. A memorial brass was, however, erected in the cathedral by the present Lord Inchiquin to commemorate the share which the second Earl of Inchiquin took in controlling the destiny of Jamaica at a most anxious period. The inscription runs as follows:—

In memory of

William O'Brien, 2nd Earl of Inchiquin,
Governor of Jamaica

From 31st May, 1690, till 16th January, 1691-2,
When he died of fever at St. Jago de la Vega,

And was buried in this Church.

Erected in 1912 by Lucius W., XVth Baron
Inchiquin.

In connection with his governorship of Tangier he has been described as "a well-meaning, impulsive man, devoid of discretion." That description seems equally applicable to his Jamaica career.

James O'Brien returned with his mother to England at his father's death.

By his first wife, Lady Margaret Boyle, third daughter of Roger first Earl of Orrery, Inchiquin had three sons, of whom the third, James, was, as we have seen, a member of the Council of Jamaica and chief of an expedition that destroyed the French settlements in Hispaniola.

He married secondly Elizabeth, youngest daughter and co-heiress of George Lord Chandos, and widow of Lord Herbert of Chisbury. By her he had no issue. She married thirdly Lord Howard, of Escriek.

From the terms of his will it is evident that Inchiquin was financially interested in the Assiento Company, which had been established in 1689.

A portrait of the Earl of Inchiquin is in the History Gallery of the Institute of Jamaica. It is a photograph from an oil painting by Mary Beale, at Dromoland Castle, Co. Clare. Mary Beale, née Cradock, who formed her style on that of Lely, was one of the best female portrait painters of the 17th century, and was employed by many of the most important personages of her time, including Charles II., the Duke of Monmouth, Archbishop Tillotson, John Milton, and several persons of note in Ireland.

The Government bought of Lady Inchiquin goods for the use of the Government to the value of £90; these included the "King and Queen's picture," valued at £20.

Inchiquin's will, dated 14th January, 1691, is in the Record Office at Spanish Town.

To the poor of the parish of St. Katherine, £50 he gave "for their immediate necessities"; to his heir, William Lord O'Bryen, who was well provided for, his money and effects with his agents; to his son James he gave all his interests in the Assiento, and the residue of his property in Jamaica and his share in the ship *Adventure*; to his secretary, George Reeve, his interest in the sloop *Queen Mary* and the management of the *Adventure*. He also made a bequest of £200 to his esteemed friend, Symon Musgrave, the Attorney-General. To his wife, he left all his plate "made up in Jamaica," his "old plate" going to his heir. One rather wonders what kind of gold or silversmith's work was then done in Jamaica, and where the plate now is.

WHATEVER climatic troubles they may experience from time to time, planters in the West Indies may congratulate themselves upon escaping frost. It sounds strange to hear that sugarcane cultivation in the Argentine was affected more than usually by frost last year. This, among other circumstances, turned a profit of £171,582 in the preceding year into a loss of £2,630 in the case of Leach's Argentine Estates, Ltd.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

The Green Lime Trade.

Sir,—The number of barrels of green limes used to be included in the published exports of St. Lucia, but your List of Produce required of the Treasurer here did not include same, therefore it has been omitted in recent informations. As this item is of sufficient interest, perhaps you might be willing to add it to your published Lists of Produce, and thus communicate with the Treasurer here to supply you with the desired information about same.

To	Statistics show :		For 6 months to 30th June, 1922.		
	Green Limes.	Barrels	Oranges.	Pine Apples.	Mangoes.
Barbados	33	barrels	229,326	1,142	1,027 pkgs.
Bermuda	68	"	—	432	23
Canada	30	"	180	—	—
United States	2,700	"	—	—	—

The packages of mangoes to Barbados are of an average of 700 each; also there were shipped to Barbados 286 packages of mixed fruits. Mangoes shipped to New York per s.s. *Matura* arrived there after seven days in perfect condition, and a telegram was received here ordering a second shipment, made on 25th July per s.s. *Guiana*, of 51 packages. The fruit trade of St. Lucia is worthy of development, and all encouragement should be given to it. Can you help? The Canadian Merchant Marine has invited us to ship 20,000 bunches of bananas per fortnight from next April, but this is too soon. They would put on their Cardiff to Glasgow steamers fitted out for the fruit trade in the West Indies.

Firewood, 165,996 cub. ft. to Barbados; charcoal, 186,895 lbs. to Barbados and 4,900 lbs. to Bermuda, also to 30th June, 1922.

Yours faithfully,

THE CARIBBEAN GENERAL AGENCY,
V. G. MONTPLAISIR.

Dominica.

[We shall be very glad to endeavour to adopt Mr. Montplaisir's suggestion. We agree that the fruit trade of St. Lucia, and indeed, of the West Indies generally, should be capable of expansion. It is remarkable that while oranges are now imported into the United Kingdom from such distant countries as Australia and South Africa, only one island of the West Indies, which should be less than a fortnight's steam from the mother-country, now ships oranges to this country.—Ed.]

Columbus' Telescopes.

Sir,—A paragraph in the *Daily Mail* of the 21st instant gave prominence to the indignation expressed by *The Bulletin* of the French Astronomical Society at what it termed the "latest example of the general ignorance of matters astronomical," as exemplified in the issue of a new (*sic*) 4d. stamp for St. Kitts-Nevis, showing Columbus looking through a spy-glass; a reproduction of the stamp being given. Apparently, the Editor of *The Bulletin* and the writer of the paragraph are as ill-informed on matters philatelic as the general public are alleged to be on matters astronomical; for the stamp in question (of which the one reproduced may be a reprint) was issued as far back as 1903, the anachronism being observed and commented upon at the time in some of the stamp papers and certain of the public Press, THE WEST INDIA COMMITTEE CIRCULAR being (if I recollect aright) amongst the latter.

Yours faithfully,

W. H. PORTER.

Wimbledon, S.W.

October 6th, 1922.

SOME COMPANY NOTES.

The Colonial Bank.

The accounts for the half-year ended June 30th show a net profit of £59,600 (as compared with £126,578 and £75,600 for the same periods in 1920 and 1921 respectively), making, with the balance brought forward from the preceding half-year, a total of £81,566. After providing £30,000 for bad and doubtful debts, the Directors recommended a dividend of 8% per annum (as compared with 10% per annum last year). This will absorb £26,100 leaving £28,666 to be carried forward. The Court have also thought it advisable to transfer the sum of £100,000 from the Reserve Account, in view of the possibility of further provision being required for doubtful debts.

With regard to the West Indies the directors state that the material advance in the price of sugar has improved the outlook, though trade, generally, is slow to recover from the severe depression. The prospects for the growing sugar crops are most encouraging.

Trinidad Western Oilfields, Ltd.

A petition for the winding-up of the Trinidad Western Oilfields, Ltd., will be heard on October 17th. This company was registered on October 11th, 1919, to acquire from H. G. Simpson the freehold, with mining and oil rights for 21 years, of the Aripere Estate, in the ward of Oroupouche, Trinidad, and mining and oil leases over a further 138 acres adjoining. The consideration was £65,000 cash. The capital is £150,000 in 600,000 shares of 5/- each, of which 400,000 shares are issued and fully paid. There was no public issue, but 400,000 shares were subscribed by Messrs. Munroe, Wadham & Co., Ltd., for cash at par less 10 per cent. commission. Particulars of the company were advertised on February 24th, 1920. The board, as set out in *Skinner's Oil and Petroleum Manual*, 1922, is: Chairman, Sir A. C. T. Beck, M.P., and the Directors the Earl of Carrick, Lieut.-Colonel C. M. C. Rudkin, D.S.O., Mr. A. B. Dalglish, and Mr. T. W. Richards, and the technical adviser Mr. J. R. Falconer.

A TRADE COMMISSIONER SERVICE.

"Imperialist's" successor in the *Financier* of October 9th writes:—

"While the campaign for the appointment of a Trade Commissioner in London is being actively carried on in the West Indies, the old-established West India Committee continues in its sphere of undiminished usefulness in fostering trade relationship between the Mother Country and her Daughter Colonies in the Caribbean.

"The progressive spirit which animates this ancient association is demonstrated in its removal to more commodious premises at 14, Trinity Square, where the ever-increasing work of the Committee can be carried on in more commodious and more convenient premises. The new offices are on the first floor of a modern building close to the Port of London Authority's fine premises, and will be a comfortable centre of West Indian activities in the Empire's capital."

The following have been amongst visitors to The West India Committee's new rooms at 14, Trinity Square:—

Mr. Robert Anderson, Colonel W. C. Anderson, D.S.O., Mr. F. C. S. Rascom, Mr. Robert Bryson, Mr. R. G. W. Farnell, Mr. A. H. Hamel-Smith, Mr. Hamel Hamel-Smith, Mr. F. H. Hopkinson, Mr. Samuel Manning, Hon. Gideon Murray, M.P., Mr. T. W. B. O'Neal, Mr. Leslie H. Ower, Mr. Douglas G. Pile, Mr. H. W. Porter, Mr. H. Seedorff, Dr. E. M. Skeete, Mr. T. H. Steel, Mr. W. F. Watson, Mr. J. W. Wilson, Mr. L. Ashenheim, Hon. William Morrison.

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in R.M.S. *Comita*, September 26th:—

Mr. H. E. Allwood	Mr. & Mrs. W. S. Hide	Hon. & Mrs. J. H. Phillipps
Mr. H. A. Allback	Mr. C. Hope Levy	Mr. & Mrs. W. E. Powell
Mr. C. Bekker-Hansen	Mr. H. W. Knox	
Mr. & Mrs. W. G. V. Blogg	Mr. G. Lambert	
Mr. W. Bourke	Mrs. H. V. Lindo & family	Miss D. Pringle
Mr. H. M. Brandon	Mrs. W. F. M. Loughnan	The Misses Pringle
Mrs. N. D'Costa	Mr. & Mrs. C. H. Masse	Mr. L. P. Purton
Mr. N. Crombie		The Misses Purton (2)
Ms. & Mrs. G. H. Deerr	Mr. R. O. Minott	Miss G. Rule
Mr. & Mrs. D. A. Delgado	Mrs. G. Millis	Mr. H. F. Sasso
Mr. H. A. Evelyn	The Misses Mills (2)	Mr. & Mrs. E. L. Staingar
Mr. & Mrs. C. J. Gillies	Mrs. E. H. Myers	Mr. H. G. Swithenbank
Mrs. G. M. Gillies	Lt.-Col. & Mrs. A. E. Norton	Miss J. Thorpe
Mr. & Mrs. E. E. Hazard	Mr. H. W. Pedder	Miss F. Verley
		Mr. & Mrs. G. Vernon Tate
		Mr. J. W. Wicks

Sailings to Jamaica, from Avonmouth, in R.M.S. *Motagua*, October 3rd:—

Capt. W. R. Churchill-Lougman	Mr. & Mrs. E. Harvey	Miss D. M. T. Miller
Mr. P. Coucher	Mr. & Mrs. A. M. Henderson	Miss M. Motta
Hon. & Mrs. H. H. Cousins	Mrs. W. G. Hendriks	Bojy-Gen, Moulton-Tatrett, C.H., C.M.G.
Miss J. E. Cousins	Mr. & Mrs. L. Isaacs	Mrs. A. S. Phillips
Mr. & Mrs. R. Craig	Rev. & Mrs. G. H. Leader	Mr. & Mrs. M. Scott
Mrs. S. B. Cripps	Mrs. H. G. deLisser	Mr. B. P. Seywell
Mr. R. E. Crum-Ewing	Mrs. M. Litchfield	Miss B. M. Shepperd
Mr. & Mrs. G. P. Dewar	Miss C. Lochan	Mr. & Mrs. J. R. Smith
Mr. & Mrs. T. P. Evelyn	Miss R. S. Mackay	Rev. R. S. Stewart
The Misses Evelyn (2)	Mr. & Mrs. J. J. G. Blair	Miss J. M. S. Stewart
Capt. J. Hamilton	The Misses Blair (2)	Mr. & Mrs. O. Traut
Mr. C. H. Hancock	Mrs. A. Miller	Mr. A. Watson-Taylor
		Mr. & Mrs. S. A. Walton

Home arrivals from Jamaica, in s.s. *Bayano*, Avonmouth, September 30th:—

Mr. C. H. Browne	The Misses de Brandon (2)	Mr. H. Lindo
Miss A. M. Browne	Mr. R. de la Guardia	Mrs. M. A. Lightburn
Major & Mrs. A. M. Bennett & family	Mrs. M. L. de Portocarrero	Mr. C. Lopez
Mrs. R. Carrol	Mr. J. A. Hawkes	Mr. M. Malcolm
Mr. L. K. Davidson	Mr. G. A. Henriques	Mrs. H. Moxey
Mr. J. de Brandon		Mr. & Mrs. J. E. Smith
		Mr. C. E. L. Verley

Royal Netherlands West India Mail.

Sailings to West Indies from Dover, in s.s. *Stuyvesant*, September 30th:—

Dr. H. Alston	Mr. & Mrs. E. L. Greene	Sir Charles and Lady Major
Mr. H. W. Alston	Mr. & Mrs. G. B. Haining	Mr. & Mrs. H. W. McCrow
Mr. H. C. Amy	The Misses Haining (3)	The Misses McCrow (3)
Mr. H. W. C. Annable	Mr. J. J. Halliday	Mr. & Mrs. E. R. D. Moulder
Mrs. R. Bruce	Mrs. A. E. Hayde	The Misses Murphy (2)
Mr. Archibald	The Misses M. and J. Haynes	Sir Charles and Lady O'Brien
Mr. & Mrs. R. Arthur	Mr. J. I. Henzell	The Misses O'Brien (2)
Mrs. R. D. Barnett	Lt.-Col. L. Hinds-Howell	Mrs. A. Pereira
Mrs. R. H. Barry	Mrs. F. Howard	Miss I. Pereira
Mr. H. Bishop	Mrs. H. Hunter	Mr. A. Moody Stuart
Dr. J. A. Browne	Master B. King	Mr. D. Moody Stuart
Mr. H. Caldwell	Mr. & Mrs. A. Lawrie	Miss D. L. Waite
Mr. L. Caro	Miss J. Lawrie	Mrs. M. J. Weber
Mr. C. Dalry	Mr. A. G. Leyitt	Mr. & Mrs. G. A. Yearwood
Mr. H. W. Day	Mr. & Mrs. J. H. MacLachlan	
Mr. W. J. Dickson		
Lt.-Col. L. Evans		
Mr. W. C. Flinton		
Mr. F. E. C. Gill		

Home arrivals from West Indies, in s.s. *Cryssan*, Plymouth, October 2nd:—

Mr. & Mrs. Francis Austin & family	Mr. Eric Collymore	Mr. Harry O'Reilly
Mr. Fred Bailey	Mr. Hilton Gooding	Mr. Ernest Pearce
Mr. John Ballardie	Mr. William Harwood	Mr. Lionel Reeves
Mr. Isaac Capriles	Mr. William Jeffrey	Mr. Ivres Skinner
	Mr. William Nowell	

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Specialist*, September 30th:—

Mr. & Mrs. Davis	The Misses Kirby (2)	Mr. H. Thom
The Misses Davis (2)	Mrs. Maggs & family	

VISITORS FROM OVERSEAS.

Mr. L. G. Alston	H. H. Sir Vyre Watson, K.C.M.G.
Hon. J. P. Auld, M.I.C.E.	Capt. Thomas H. Irving
Mr. B. C. Archer	Mr. S. M. Jacobsen
Mrs. S. Archer	Mr. H. I. Jeffers
Mr. P. F. W. G. Austin	Mr. Archibald Johnston
Mrs. A. Bagot	Mr. H. Jason Jones
Mr. P. A. A. Barlett	Hon. W. G. Kay
Mr. James Black	Capt. O. H. Keeling
Capt. W. Bowring, M.B.E.	Mr. C. H. Kitch
Mr. C. G. Brown	Mr. G. LaFitte
Mr. James Brown	Mr. Dudley Leacock
Mr. H. Gordon Burr	Mr. L. J. Lee
Mrs. H. Burton	Mr. K. S. Longley
Mr. M. P. Camacho	Hon. J. Challenger Lynch
Mr. E. H. Canning	Mr. Samuel Manning
Mr. G. O. Case	Mr. R. S. Maxon
Mr. J. W. Cathcart	Dr. B. Gray Nassiah
(Lieut.-Col. J. H. Collins, V.D.)	Mr. G. C. May
Dr. J. H. Cooke, R.A., M.J.	Mr. John McFarroy
Mr. P. A. Coreu	Mr. Hugh McFarland
Mr. & Mrs. Ivor C. Daniels	Mr. J. C. McFarland
Mr. A. Cory Davies	Mr. J. Morrison
Lt. Col. Robert Deane, O.R.E.	Hon. W. Morrison
Mr. K. McM. de Roux	Mr. L. A. P. O'Reilly, K.C.
Mr. P. J. Evans	Mr. Leslie W. Ower
Hon. H. Ferguson	Mr. G. D. Pile
Mr. Joseph N. Fox	Dr. H. Graham Pilgala
Dr. W. H. Frets	Hon. E. A. Robinson
Mr. C. C. George	Mr. J. A. Robinson, P.S.A.I.
Mr. W. Gordon Gordon	Hon. W. J. Robson
Mr. Archibald Gordon	Mr. G. T. Rock
Mr. Gordon Graham	Mr. L. A. Ryan
Mr. J. T. Greg	Mr. G. Elliot Sealy
Mr. P. Lechmere Guppy	Mrs. H. H. Sealy
Mr. J. H. Hawk	Dr. F. K. Shattuck
Mr. A. H. Hamel-Smith	Hon. A. P. Sharlock
Mr. H. Hamel-Smith	Dr. E. M. Shute
Mr. Alex G. Hamlyn	Mr. Harry F. Smith
Mr. V. Hanschell	Mr. M. Howard Smith
Mr. V. C. Hanschell	Rev. W. R. Symon
Sir J. B. Harrison, C.M.G.	The Rt. Rev. Bishop of Trinidad
Mr. S. M. Houghton-James	Mr. David C. Vaz, J.P.
Mr. A. K. Petre Hay	Hon. W. A. S. Vickers
Mr. O. T. Henderson	Hon. R. A. S. Warner, K.C.
Mr. L. W. Hobson	Mr. H. Williams
Mr. F. W. Hopkins	Hon. S. Wolfsohn
Mr. G. V. Huggins, O.R.E.	Mr. W. Harold Wright
Mr. W. P. Humphrey	Mr. G. A. Yearwood
Mr. H. L. Humphreys	
Mr. Henry H. Baird, c/o Messrs. Thom & Cameron, 13, Chespalde Street, Glasgow.	Mr. John H. Fleming, The Hermitage, Hadlow, Kent.

WEST INDIAN SECURITIES.

Div.		Latest prices.
4 1/2 %	Antigua ... 4	82.84
4 1/2 %	Barbados ... 30	73.75
3 1/2 %	British Guiana ... 4	84.80
3 1/2 %	British Guiana ... 1925-42 ...	84.85
3 1/2 %	British Guiana ... 1925-45 ...	84.85
3 1/2 %	British Guiana ... 1925-45 ...	1035
3 1/2 %	British Guiana ... 1925-45 ...	84.80
4 1/2 %	Grenada ... 4	80.81
4 1/2 %	Jamaica ... 4	78.80
3 1/2 %	Jamaica ... 1917-42 ...	70.72
3 1/2 %	Jamaica ... 1917-42 ...	83.85
3 1/2 %	St. Lucia ... 4	84.86
3 1/2 %	Trinidad ... 4	84.86
3 1/2 %	Trinidad ... 1922-44 ...	84.70
3 1/2 %	The Colonial Bank ...	6.61
3 1/2 %	Royal Mail Steam Packet Co. Ordinary ...	87.62
6 1/2 %	Angostura Bitters Parl. Preference ...	12.6
6 1/2 %	New Trinidad Lake Asphalt Co. 8% Debentures ...	103.188
—	St. Madeleine Sugar ...	50
—	Apea (Trinidad) Oilfields, Ltd. ...	41.62
—	Petroleum (Trinidad) Oilfields, Ltd. 10% ...	1.6
—	Trinidad Central Oilfields ...	37.9
—	Trinidad Oilfields Ltd., Ltd. ...	24.4
—	Trinidad Leaseholds, Ltd., Ltd. ...	4.6
—	United British Oilfields of Trinidad, Ltd. ...	4.4
—	Napartina Oilfields of Trinidad ...	12.6
—	Direct West India Cable Co. ...	—
—	W. I. and Panama Tel. Co., Ltd. Ordinary ...	4.4
—	W. I. and Panama Tel. Co., Ltd. 5% Cum. Int. Pref. ...	1.4
—	W. I. and Panama Tel. Co., Ltd. ... 2nd ...	1.4
—	W. I. and Panama Tel. Co., Ltd. 5% Debentures ...	75.80

PRODUCE MARKETS SUMMARY.

Telephone—
Minorities 2200-2201.
Telegrams—
"Carib, London."



11, TRINITY SQUARE,
LONDON, E.C. 3.
Oct. 10th, 1922.

BANK RATE. 8 per cent. as from July 18th.

EXCHANGE. Value of the £ Sterling.

	Sept. 26th	Oct. 10th		Sept. 26th	Oct. 10th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
in U.S.A. ...	18 2	18 2	in Spain ...	1 2 10	1 3 0
.. France	2 5 3	2 5 6	.. Germany	308 0 0	625 0 0
.. Belgium	2 8 7	2 6 10	.. Austria	Nominal	Nominal
.. Italy ...	4 2 9	4 2 7	.. Holland	18 10	18 10

The intrinsic value of the gold sovereign is £1 1s. 10d.

SUGAR. The New York market has been very strong during the fortnight and prices have advanced 0.51c. upon last Summary's closing quotation, Cubans yesterday being quoted at 5.28c. duty paid and landed equivalent to 5.52c. c.i.f., or about 3.36c. f.o.b.

Futures closed firm at: December 3.42c., March 3.17c., May 3.28c.

There has been a slight advance in prices in the Home Market, yesterday's values being:—London Granulated 50s.; American Granulated 49s. spot; West Indian Crystallised 41s. 8d. to 44s. 9d.; White Mauritius 48s. 6d. spot; White Java 47s. spot. Cuban 96 deg. was quoted at 10s. 3d. nominal c.i.f. Terminal market values were:—White, November 20s. 10d.; December 20s. 9d.; January 20s. 10d. 96 deg. all nominal.

The West Indian sugar statistics in London on September 30th were:—

	1922.	1921.	1920.	Tons
Imports ...	40,748	43,892	57,584	
Deliveries ...	30,575	36,962	45,664	
Stock ...	16,072	15,134	20,056	"

RUM remains flat, and no improvement in the demand can be expected until the present duty is lowered.

The stocks in London on September 30th were:—

	1922	1921	1920	Pudu.
Jamaica ...	13,684	11,323	11,339	
Demerara ...	19,223	17,422	15,027	
Total of all kinds	41,442	38,919	36,353	"

CACAO is a very quiet market. The price of fine Grenada remains at 53/-, with fair sales passing at this figure. Fair estate Trinidad is quiet at 65/-, with a little business doing; this quality, to arrive, is offering at 53/-, c. & f. Export is dull.

The stocks in London on September 30th were:—

	1922.	1921.	1920.	Bags.
Trinidad ...	7,683	23,882	49,325	
Grenada ...	15,028	20,248	31,480	
Total of all kinds	101,719	151,159	284,600	"

ARROWROOT. Since the advance in prices reported in the Summary the market has remained slow, without change in values.

BALATA is quiet, with West Indian sheet valued at 3/2 spot, and forward 3/-, c.i.f.

BAY OIL. The market is unchanged, and values are quite nominal.

COFFEE. The home market is very quiet, and export is flat. Good to fine ordinary Jamaica is nominally unchanged at 63/- to 70/-. No Blue Mountain has been offered during the fortnight.

COPRA remains quietly steady, with West Indian f.m.s. a little dearer on the fortnight at £24 2s. 6d., c.i.f. London or Rotterdam.

COTTON generally has been in slightly improved demand, with quotations advanced. There has been a little more inquiry for West Indian Sea Island, but quotations for this quality are reduced 100 points at: medium 22d., fine 29d., and extra fine 35d.

HONEY remains quiet and unchanged, with the nominal value of Jamaica ranging from 27/6 to 55/- for dark liquid to fine white ref. Auctions have been arranged for this week.

LIME PRODUCTS. Lime Oil. In Handpressed there are sellers at 7/6 per lb., but there is little inquiry from buyers. Distilled remains steady at 1/11 per lb. **Lime Juice.** There is now a good supply of fresh raw juice, but no demand. In Concentrated, sellers are firm at 217 10s.

LOGWOOD. Business is slow, with the last nominal quotation unchanged.

ORANGE OIL. There are now sellers of Sweet at 9/8 per lb. There has been a little inquiry for Bitter, and the small supplies available are held for prices beyond buyers' ideas.

PETROLEUM. The following table shows the production figures of the Apex (Trinidad) Oilfields, Ltd., and Trinidad Leaseholds, Ltd., for the past six months, together with the deliveries of the former company and the purchases of the latter:—

	APEX (TRINIDAD).					
	Apr. Tons.	May. Tons.	June. Tons.	July. Tons.	Aug. Tons.	Sept. Tons.
Production ...	4,450	7,800	5,000	7,300	11,900	11,000
Deliveries ...	6,000	6,400	3,000	7,200	10,100	12,600

	LEASEHOLDS (TRINIDAD).					
	Apr. Tons.	May. Tons.	June. Tons.	July. Tons.	Aug. Tons.	Sept. Tons.
Production ...	8,500	9,550	8,500	8,600	9,500	10,200
Deliveries ...	6,000	6,400	3,100	7,200	10,100	10,150

RUBBER is a firmer market, with a good inquiry from U.S.A. Crepe and sheet is selling at about 8½ spot.

SPICES. On the spot, **Pimento** is quiet but steady, with holders asking 2½d. There is very little demand for Jamaica **Ginger** and in order to effect sales, some concessions on the nominal quotations have to be made. **Mace** was 1d. to 2d. lower at auction, with mixed broken polish to good pale at 1/6 to 1/10 per lb., and bright red at 1/9. West India **Nutmegs** are unchanged. Sound nuts of medium size are worth 8d. per lb., and smaller sizes 7½d.

THE Nourse Line intimate that they propose to maintain monthly sailings between Calcutta and Burma and the West Indies, with additional sailings as required. Freight for November, and until further notice, for Calcutta shipment will be as under:—

WEST INDIES, ETC.:

	Calcutta Shipment.		Rangoon Shipment.
	Rice and Dhall	Gunnies.	
Trinidad	55/-	65/-	55/-
Barbados			
Martinique			
Guadeloupe			
Porto Rico			
Dominican Republic	45/-	65/-	45/-
Jamaica	60/-	65/-	60/-
By Transshipment { Demerara } { Surinam } { St. Lucia }	65/-	75/-	65/-

Rates to the principal ports in Cuba will be 40s. for rice and malt from Calcutta and 80s. for rice from Rangoon.

The West India Committee Circular

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. There is at present no entrance fee. The Secretary will gladly send specimen copies of THE WEST INDIA COMMITTEE CIRCULAR to any friends of members on application. The minimum subscription is £1 1s. or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
MIVONIA 2200-2201.



14, TRINITY SQUARE,
LONDON, E.C. 3.

Telegrams:
CARIB, LONDON.

October 24th, 1922

THE CHANGE OF GOVERNMENT.

SINCE we last went to Press there has been a great political upheaval in the United Kingdom. Following the break-up of the Coalition through the secession of the Conservative party, after a meeting at the Carlton Club, on October 19th, and Mr. LLOYD GEORGE'S resignation, the KING sent for Mr. BONAR LAW, who is now forming a Cabinet. The West India Committee very properly holds itself aloof from party politics, endeavouring, as it does, to get the best it can for the West Indies, British Guiana, and British Honduras from the Government in power. Nevertheless, now that Mr. LLOYD GEORGE has resigned, it would be idle to pretend we do not experience a feeling of lively satisfaction at Mr. BONAR LAW being selected to be his successor. West Indians will be ever grateful to Mr. LLOYD GEORGE and his Ministry for having adopted the

principle of Imperial Preference, and for having pledged the Imperial Parliament to extend preferential treatment to dutiable Colonial produce for a period of ten years. Similarly, they will not be lacking in appreciation of the action of the late Government in having sent a mission to the West Indies and British Guiana, headed by THE HON. EDWARD WOOD, M.P., their Parliamentary Under-Secretary of State for the Colonies. But, all the same, West Indians' *Vale* to the late Ministry will be accompanied by a very cordial *Ave* to Mr. BONAR LAW'S administration. It will not be forgotten that it was the new Premier's brilliant speeches which he delivered as Member for Glasgow on the Sugar Bounty question, in 1903, that brought him prominently before public notice as a future statesman who would go far, and his views on Imperial Trade are too well known to require emphasis. We can recall as though it were only yesterday the strong appeal which he then made on behalf of the West Indies, and how he told the House that when he first entered a commercial office in Glasgow, one of the most flourishing industries was the supply of machinery to the West Indies, which had been destroyed by the foreign bounties. We can hear, too, his peroration in which he twitted the Free Trader, stating that if the Government were in his hands "he would fly to the rock of his Free Trade principles, and, when the waves of foreign competition were sweeping over him he would be seen, in the interval of a receding wave, clinging shivering to his rock, and still exclaiming: 'My principles are all right, the rock is still here, it is the facts that are all wrong.' Yes, sir! It is the facts which are wrong; but since it is not possible for us to alter the facts to suit our theories, is it not time for us to begin to think of altering our theories to make them suit the facts?" We believe that a prominent plank in Mr. BONAR LAW'S platform will be the need of developing trade within the Empire, which has been rendered all the more pressing by the present state of Europe and the East. Before these lines are in print it is probable that the names of the members of his Cabinet will have been announced, and we hope that we may be able to record in our next issue that they include those of several good friends of the West Indies which have appeared in the Press in this connexion.

THE CABLE QUESTION AGAIN.

I N view of the lamentable state of affairs disclosed by the recent report of the West India and Panama Telegraph Company, the appeal of the directors of that concern for financial assistance in the form of an increase in the charge per word for messages can have caused little surprise in the West

Indies. It was shown that the loss on the year's working was £1,519, and that but for the fact that £21,991 17s. 9d. had been earned by hiring out the company's cable ship and by the sale of several years' accumulation of materials, the total debit balance at the 31st December last would have reached nearly £100,000. To meet this crisis, the Governments of those Colonies have been asked, through the Colonial Office, to sanction an addition of 6d. per word to the general message rate, and with a pistol held at their heads, as it were, in the form of a threat of complete financial collapse and the consequent suspension of telegraphic communication if this is not conceded, it is not surprising to learn that the West Indian Colonies have agreed to sanction the increase. It was, indeed, as the Governor of the Windward Islands pointed out when the matter was brought before the legislature of St. Lucia, a case of "Hobson's choice," since no West Indian Colony could for a moment be a party to a cessation of cable communication, the maintenance of which is so essential to the mercantile community. Telegraphic communication between the West Indies and the outside world will thus become once more the most expensive within the Empire. The Governments concerned are paying the penalty for the regrettable arrangement which they made in 1914 in entering into a contract with a company which has been handicapped by a routing arrangement with the Cuba Submarine Telegraph Company, instead of boldly carrying out the policy so consistently advocated by The West India Committee for many years, of extending the Halifax-Bermuda cable system to the West Indies—a policy which has now met with very general support in Canada, the West Indies, and at home. We understand, however, that the concession now to be made to the West India and Panama Telegraph Company will be "without prejudice," as the lawyers say, to the consideration of the future of West Indian telegraphic communication, and we are glad to learn that negotiations are now proceeding which should result in securing a material improvement in this respect. The views of The West India Committee in this connexion are so well known that they need hardly be reiterated, and it will suffice to say that no service will be regarded as satisfactory which passes over foreign territory, and that essentials will be that the service shall be cheap, quick and reliable. The continuance of a 3/- rate is unthinkable. It would place the cables beyond the reach of the private citizen, and would probably defeat its own object, like the late Chancellor of the Exchequer's tax on cigars. Similarly it will be absolutely necessary to provide for drastic penalties where the service is inefficient, as it is now. Only in this way will it be possible to obviate the present scandal of mutilated messages, which has resulted in serious loss and inconvenience to those trading with the West Indies. It has been suggested that, as the bed of the open sea between Bermuda and Barbados has not been charted, it would be more economical to lay the new cable from Grand Turk, and we imagine that there would be no serious objection to this, provided the cable does not pass over foreign territory. In conclu-

sion, we would express the hope that wireless may not be forgotten. With enthusiasts in England daily listening to concerts at the Hague transmitted by wireless, it would be absurd to neglect the possibilities of wireless telegraphy and telephony for inter-island communication. No one who has heard one of these concerts, as we have done recently, would venture to assert that similar communication between the West Indian islands is impracticable, and we confidently look forward to the day when the expressions "broadcasting" and "listening in" will be as familiar in the West Indian islands as they have become in England.

IS FRANCE GIVING BOUNTIES?

From sundry references to the subject which have been made in the *Journal des Fabricants de Sucre*, it would appear that something approaching to a system of indirect bounties is being set up in France.

It would seem that when sugar is exported from that country, the exporter receives a certificate to show that the Consumption Tax on the sugar in question has been paid, and this certificate is accepted in lieu of payment of all duties when sugar is imported. There being two duties in France, the *Import Duty* and the *Consumption Tax*, it is obvious that the exporter can make for himself a good turn, and what is usually done is to sell the certificates, which not unnaturally have a market value. It is to be hoped that the Commercial Department of the Foreign Office is watching this system, which is apparently growing up under the nose of the French Government.

Remembering as we do, how the former *primers déguisées* grew up, through producers paying duty on the quantity of sugar which it was calculated they could get out of a ton of beets, and eventually securing a drawback on export, based on the quantity of sugar exported, although they got more than the calculated amount of sugar from the roots, one is naturally suspicious when a system of this kind is inaugurated.

THE AGRICULTURAL COLLEGE.

At the seventh meeting of the Governing Body of The West Indian Agricultural College, which was held at the Colonial Office, Downing Street, on October 17th Sir Arthur Shipley, G.B.E., presiding, several important decisions were arrived at.

Sir James Currie, K.B.E., C.M.G., was co-opted a Governor his name having been suggested by the Empire Cotton Growing Corporation, who are contributing £500 a year for two years to the funds of the College. Major H. C. Corlette, O.B.E., Architect, attended and submitted working drawings for the new College building and the steps taken to invite tenders for erection of the building were approved and the appointment of Mr. H. C. Amies as Clerk of the Works confirmed.

Letters which Mr. Winston Churchill had addressed to the Governments of the tropical African colonies emphasizing the Imperial scope of the College, were read. The words "*Via colendi haud facilis*," adapted from Virgil's *Georgics* (l. 120 and 121) were adopted as the motto of the College.

SOME NOTES OF INTEREST.

"HAGGING ribber neber drown somebody."

* * *

150 bananas is the daily ration of a pigmy elephant which has just been deposited at the Zoo.

* * *

THE Royal Netherlands West Indian Mail Service have opened a Passenger Office at 18-19, Pall Mall.

* * *

THE first shipment this season of Jamaica "Blue Mountain" oranges arrived at Garston per s.s. *Tortuguero* last week.

* * *

No new sugar machinery is at present on view for the next Cuban crop, orders being entirely restricted to repairs and minor replacements.

* * *

THE s.s. *G. Harrison Smith* recently passed through the Panama Canal with 18,500 tons of crude oil—a record cargo for this commodity.

* * *

"STOMATA" has been registered in Trinidad as the cable address of the West Indian Agricultural College and the Imperial Department of Agriculture.

* * *

THE Government of the Gold Coast has reduced the export tax on cacao from a halfpenny to a farthing per lb. The new rate came into operation on the 23rd inst.

* * *

ON the average, it takes sixty papaw fruits to give one pound of pure papain, the value of which at present in London is about £1 per pound. The best quality of papain is said to come from Ceylon.

* * *

THE daily loading capacity of the three oil ports in the north of Vera Cruz is (according to the *Mexico Year Book*) 2,470,000 barrels, or full cargo for 38 tankers of 65,000 barrels capacity each.

* * *

THE Cantley Beet Sugar Factory, which will deal with the Kelham crops as well as its own, started its present campaign recently. Over 1,800 beet growers are delivering roots to the factory.

* * *

AFTER four years of Peace, sulphate of ammonia, basic slag and superphosphate of lime are still on the controlled list; that is, their export from the United Kingdom is prohibited except under licence. Why is this?

* * *

THE CIRCULAR welcomes the advent of a new contemporary in *The Herald*, "a weekly paper devoted to the best interests of Jamaica," the first number of which was published at Kingston, Jamaica, on September 10th.

* * *

LOLD LEVERHULME has offered £548,000, payable in cash, for the assets of the Watford Manufacturing Co., makers of Vi-Cocoa, who have gone into

voluntary liquidation. The company is disposed to accept this offer, and the liquidator has applied to the Court for leave accordingly.

* * *

THE exports of sisal fibre from Progresso during the first six months of this year amounted to 161,111 bales, as compared with 381,085 bales in the same period in 1921. In the same six months, 5,933 bales were exported from Campeche, or 8,973 bales less than for the corresponding period last year.

* * *

THE Panama Canal Government has stopped the repatriation of destitute West Indians in the Canal zone to their homes. This, *The Workman* understands, is due to the Government of Barbados charging each person arriving at that island a quarantine fee, which is collected from the Panama Canal Government.

* * *

THE Eskimo Pie Corporation has, according to the *Tea and Coffee Trade Journal*, been incorporated at Wilmington, U.S.A., with \$1,000,000 capital. As already explained in the CIRCULAR the Eskimo Pie is a form of ice cream preserved by a coating of cacao butter, which has found its way to this country from America.

* * *

THE Mirrlees Watson Company, Ltd., have received an order from the Sena Sugar Estates, Ltd., of which Mr. Arthur N. Lubbock is a Director, for a complete new factory for the Zambesi River, to grind 1,200 tons of cane per day and designed to make very high quality white sugar or, when required, refining sugars.

* * *

THE DUKE OF DEVONSHIRE has been appointed Chairman of the Executive Council of the British Empire Exhibition, 1924, in succession to the Right Hon. Lord Morris, who becomes a Vice-President. The Duke was Civil Lord of the Admiralty from 1915-16, succeeding the Duke of Connaught as Governor-General of Canada in the latter year.

* * *

CACAO was the only article of export from the Gold Coast, according to the Customs annual trade report of that colony, that showed an increase in quantity in 1921, 138,195 tons being shipped that year, as compared with 124,773 tons in 1920. The figures for last year have only once been beaten, namely, in 1919, when over 176,000 tons were exported.

* * *

THE United States Consul at Koningsberg has reported that owing to the rapidly increasing cost of living in Germany, many people are substituting bars of chocolate for regular meals. In 1919 great quantities of American chocolate, smuggled after the armistice into West Germany, where importation of chocolate is prohibited, were sold in East Prussia.

* * *

UNDER the title of the American Sugar Cane League, Ltd., the following bodies have become amalgamated:—The American Cane Growers'

Association, the Louisiana Sugar Planters' Association and the Producers' and Manufacturers' Association. Mr. Andrew H. Gay is President of the new association, which held its first meeting on September 28th.

* * *

WEIRD things in the way of sea monsters are showing themselves. According to a correspondent of *African Industries*, huge octopuses and squids are daily breaking the fishers' nets off the coast of Brittany. Off Fedala, in Morocco, a sea monster has been killed which has not been identified, while, at the same place, a turtle has been caught weighing 9 cwt. and of over 10 ft. in length.

* * *

MR. R. PARKINSON GOFFE, Barrister-at-Law, whose family has been for many years interested in the fruit industry, has now settled in Halifax, Nova Scotia, where he is making a determined effort to establish direct imports of bananas from Jamaica. The first consignment of fruit shipped direct since 1912 reached Halifax on August 7th, in good order, and was handled by Mr. H. F. Burton, to whom it was consigned.

* * *

The falling-off in the Swiss importation of cacao beans last year, when the quantity was only about a third of that of 1919, and far below that of pre-war years, is thought by *Wirtschaft und Statistik* to have been closely connected with the unsatisfactory position of Swiss industries due to the high exchange rate of the Swiss franc. The export figures for Swiss chocolate showed a corresponding decline, falling from 15,607 tons in 1920 to 11,276 tons in 1921.

* * *

In the struggle for existence in the sugar producing world, only the fittest sugar estates can hope to survive under existing conditions. In this connection estates' proprietors would do well to secure a copy of a pamphlet just issued by Andrew Barclay, Sons & Co., Ltd., of Caledonia Works, Kilmarnock, containing particulars of their light locomotives, which are used all over the world for carrying canes to the factory and sugar to the port of shipment.

* * *

CENTRAL DELICIAS, in Cuba, the world's biggest sugar factory, closed its crop with an output of 149,470 tons. This quantity of sugar, if refined, would sweeten 22,500,000 average cups of tea, or make 600,000,000 lbs. of jam. If made into rum it would yield 90,000,000 proof gallons, or, say, 458,000,000 bottles. In bags, laid end to end, it would reach 600 miles, or from London to John o' Groat's. At the present rate of consumption in the United Kingdom, it would, when refined, supply the annual wants of 4,500,000 of the inhabitants.

* * *

UNLESS the South African industry can produce sugar to compete abroad with foreign sugar without having to look to the South African consumer to make up at least some of the difference between the home and export price, the expansion of the industry beyond South African requirements may be

a very doubtful blessing to the Union. The utmost protection that could be justified is sufficient to cover the economic costs of producing the sugar necessary for the needs of South Africa, and that is already provided in the existing Customs Tariff. Such is the conclusion reached by the Sugar Enquiry Commission in their report, which was recently presented to the Union Parliament.

* * *

The Export Duties (Spirits) Law, 1922 (No. 16 of 1922), assented to in Jamaica on 9th July, imposes the following duties upon all spirits, wines and spirituous liquors (other than rum manufactured in Jamaica) which are exported or shipped to any other country, or to any of the dependencies of the Colony, viz. :—

On each case containing 12 reputed quarts or 24 reputed pints.....	5s.
On every punchon, cask, or hog-head containing not more than 100 gallons	£12 10s.
For each additional 12 gallons or part of 12 gallons	£1 5s.

* * *

CONTRARY to earlier estimates, which placed the year's production at 30 per cent. below normal on account of heavy rains in the principal growing districts, the cacao crop, which has just been harvested in Ecuador, is larger than that of last season. This unexpectedly large crop, says the *Tea and Coffee Trade Journal*, has given a remarkable impetus to local business, and has made for a brighter outlook generally. This is easily understood when it is taken into consideration that the country's chief article of commerce is cacao and that the rate of exchange on foreign markets depends largely on cacao. In normal years Ecuador furnishes one-fifth the world's supply of cacao (about 500,000,000 pounds).

* * *

A PATIOTIC episode occurred at Gosport on September 26th, when Mr. Henry Ashworth Harrison pleaded "guilty" to a charge of assaulting the police. Mr. Harrison told the Bench that he committed the assault in order to get justice done to himself. He was, he said, a barrister, and had been a stipendiary magistrate in Trinidad, where he had occasionally acted as High Court judge. Fifteen years ago his health broke down, and he was sent back to England against his will, and because he addressed the passengers in the ship at dinner on the first night, to protest, he was placed in a cabin and kept there for the remainder of the voyage. The Bench dismissed the charge, the chairman telling Mr. Harrison to communicate with the Colonial Office.

STEWED GROUPEE'S HEAD.—Parboil the head and take out the bones. Put in stew-pan with plenty of onion, clove and mace, 2 tablespoonfuls of fresh butter, a pot of oysters, adding later a $\frac{1}{2}$ lb. of salt pork, and enough claret to cover it; stew four hours and serve.

West Indian recipes for publication in this column will be welcomed by the Editor.

EMIGRATION FROM INDIA.

Main Features of Emigration Act.

A copy of the Indian Emigration Act (No. VII. of 1922), which received the assent of the Governor-General on March 22nd last, can be seen at The West India Committee Rooms. This enactment regulates the emigration of workers from India. After giving the usual definitions, provision is made for appointing Protectors of Emigrants as public officers, and with the duties of protecting and aiding with advice all emigrants, inspecting ships, and enquiring into the treatment of returned emigrants in the country to which they emigrated, and of determining whether a person leaving India is to be classed as "emigrant" within the meaning of the Act; that is to say, whether he is a person who emigrates other than those proceeding to a country in which they have resided for not less than five years, or the wife and child of such person, or the wife and child of any person who has lawfully emigrated.

Emigration for the purpose of unskilled work (which includes engaging in agriculture) is made unlawful except from Calcutta, Madras, Bombay, Karachi, Negapatam, Tuticorin, and Dhanushkodi, and such other ports as the Governor-General in Council may fix, and will not be lawful except "to such countries and on such terms and conditions as the Governor-General in Council by notification may specify," and no notification may be made until it has been approved by both Chambers of the Indian Legislature. The Governor in Council has, on the other hand, power to declare that the emigration of unskilled labourers to any place shall cease when there is fear of them being exposed to serious risk through the outbreak of plague or any epidemic. He may also revoke such order.

Emigration for the purpose of skilled work is permitted by Section 15, such employment being defined as :—

- (1) Working as an artisan; or
- (2) working as a clerk or shop assistant; or
- (3) working for the purpose of any exhibition or entertainment; or
- (4) service in any restaurant, tea-house, or other place of public resort; or
- (5) domestic service; or
- (6) any other occupation which the Governor-General in Council may, by notification in the *Gazette* of India, declare to be skilled work.

It is, however, subject to the sanction of the Local Government from whose jurisdiction the skilled worker proposes to proceed, and whoever desires to engage any such person must state :—

- (a) The provision to be made for the health and well-being of such person and his dependents during the period of the proposed engagement, and for their repatriation at the end of such period;
- (b) the terms of the agreement under which such person is to be engaged;

(Continued at foot of next column.)

THE GLASGOW ASSOCIATION.

Review of West Indian Trade Conditions

Mr. Humphry Crum Ewing, of Strathleven, who presided at the annual general meeting of the West India Association of Glasgow, on October 17th, in moving the adoption of the annual report for the year ending June 30th, said that it was gratifying that the sugar market should be in a better position than it was in a year ago. Looking to the probable increase in the world's production, he hoped the Chancellor of the Exchequer, while retaining for Empire-grown sugar the existing amount of preference, would see his way to assisting consumption by a reduction in the duty. A considerable alleviation, too, in the crushing duty on rum was necessary if that important industry were not to be wiped out.

The chairman then proceeded to refer to the wise step taken by Mr. Winston Churchill in sending a representative of the Colonial Office to the West Indies to get first-hand information of the conditions prevailing. No better choice could have been made than that of Mr. Edward Wood, Parliamentary Under-Secretary of State for the Colonies, whose patience and reasoned answers, together with a taking personality, had probably brought the Colonies he visited more closely in touch with the Colonial Office than had ever been the case before. Mr. Wood had issued a very able and interesting report. In several of the places visited requests had been made to Mr. Wood for self-government, and he had been unable to agree to as great a measure of self-government as some of his interviewers wished, and rightly so, the chairman thought, but he (the chairman) would like to take this opportunity of warning the Colonial Office that no community in these days of independent ideas would for long continue to submit to Colonial Office rule unless that department was very judicious in the choice of their representatives. The personal touch in the Colonies meant a great deal more than it did in this country. Great care should be exercised, so that only men of strong character, with a good knowledge of affairs, and, above all, plenty of common sense, were appointed as Governors, and if by chance a bad appointment were made the Colonial Office must face their fault and remedy it rather than let a whole community suffer.

In their annual report the directors call attention to "an interesting development of enterprise in the West Indies," the results of which are so far encouraging. This is the production of white sugars for manufacturers' purposes, as has been so frequently advocated in THE WEST INDIA COMMITTEE CIRCULAR, in view of the falling off in the demand for yellow crystallised sugars.

- (c) the security in British India which he proposes to furnish for the due observance of such agreement and for the proper treatment of the person to be engaged and his dependents.

This form of emigration may also be prohibited by the Governor-General in Council.

S.S. "TRICENTROL."

"Trinidad Central's" Enterprise.

A new chapter in the history of the Trinidad oil industry was opened on October 5th, when what is believed is the first and only tank steamer to be built specifically for the Trinidad trade was successfully launched at Newcastle, from the yard of Sir W. G. Armstrong, Whitworth & Co., Ltd., to the order of the Trinidad Central Oilfields, Ltd.

The launch was performed by Mrs. Duckham, wife of the chairman of the Trinidad Central Oilfields, who named the vessel *Tricentrol*. The tanker is a steel single-screw steamer of the two-deck type. With a length over all of 420 feet, she is designed to carry 8,250 tons on a mean draft of 25 ft. 3 in., her speed on trial when loaded to this draft being 114 knots. The oil cargo is carried in eight double



The Launch of S.S. "Tricentrol."

The party present at the launch of S.S. *Tricentrol*, Trinidad's first tanker, just after the vessel had left the stocks. Mrs. Duckham, who performed the ceremony, carries the bouquet. On her left is Sir Glynn H. West, Chairman of Sir W. G. Armstrong, Whitworth & Co., and on her right is Lady West. Mr. Alexander Duckham stands next but one to his wife, with Miss Betty Clarke on his right, and Mr. E. E. Moreau, his fellow director, on his left.

compartments, having a pump room amidships extending from side to side of the vessel. There are three cargo oil pumps, which are intended to deal with various classes of oil.

The Trinidad Central Oilfields, Ltd., which was registered in 1917, is an amalgamation of a company of the same name registered in 1911, the Ortoire Syndicate, Ltd., Oil Concessions of Mayaro (Trinidad), Ltd., and Cruse Syndicate, Ltd. The areas under its control cover 25,729 acres at Tabaquite, in the Ward of Montserrat; 4,548 acres at Mayaro, 483 acres at Guapo, 799 acres at Barrackpore, 974 acres at Lizard Springs, and 42,216 acres round Mayaro and to the north and north-east of it, making a total of 78,000 acres. It has a pipeline 18 miles in length, which extends from Tabaquite to Claxton Bay. The authorised capital is £1,350,000, of which 575,840 shares of £1 each have been issued.

MORE "MANI" FROM ST. LUCIA.

From some notes on the geology of St. Lucia by Dr. A. E. C. Beausoleil, published in the *Voice* of September 20th, it would appear that the phenomenon of "Mani," to the appearance of which off Dominica reference was made in the Circular of April 27th, is also witnessed at St. Lucia.

"From time immemorial within the memory of its oldest natives," writes Dr. Beausoleil, "'Mani' or 'Manjak' has been found on the littoral, and floating and drifting on the sea within a mile of the shore during the hot season, in March and April, and again in August and September. It occurs at Dauphin, Petit Trou, Trou Prunecau, Anse Mena, Esperance, and it is reported as far east as Anse la Chaloupe. The manjak is found floating in a viscous semi-liquid condition, surrounded with a halo of iridescence. When washed ashore and exposed to the air and sun it hardens to the consistency of a soft solid.

"Explanations have not been wanting as to the source and cause of this periodic phenomenon, many of them indeed absurd — Manjak washed from Barbados, from Trinidad, from the coast of America. These are at par with the theory of an aged native of Anse la Chaloupe who conjures up as the perennial source of the Manjak a mythical vessel laden with pitch that foundered off the coast in the age of legends. The fact is that St. Lucia has always been up to now the Cinderella of her sister islands, still awaiting her fairy god-mother. It is significant that those who have been speculating about this Manjak have never visited the locality.

"It is indeed highly probable that we are faced here with a phenomenon already noted off the coasts of oil-bearing regions. It is a seasonal occurrence reported from Tobago and Trinidad; it was familiar in the Caspian Sea long before the rich oil wells of Baku were suspected and tapped. Mr. E. H. Cunningham Craig, B.A., F.G.S., draws attention to these facts in his manual in 1912 on 'Oil Finding.' The Manjak comes from vents in submarine rocks around the North-eastern coast of the island of St. Lucia.

"The conformation of the Northern region points to this. It is a series of anticlines and synclines, symmetrical and asymmetrical; it is made up of sand, clays, coralline limestones, marls, sandstones, slates, shales. These are conditions associated with some primeval delta or estuary perhaps coeval with the conditions littoral

(Continued at the foot of 1st column, page 489.)

AGRICULTURE IN JAMAICA.

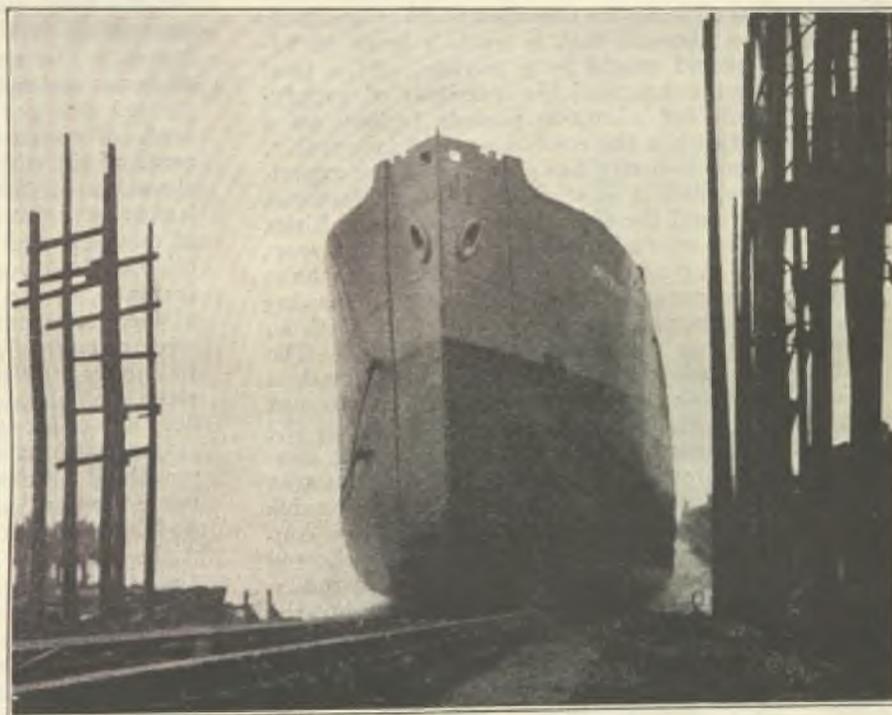
The Report of the Department of Agriculture of Jamaica for the year ending December 31st, 1921, gives an excellent and concise account of the conditions as regards the agricultural industries of that island during a period of exceptional and extreme stress. Agriculturally, the year was a good one, the rainfall being not only slightly above the average, but also well distributed. As the result, in spite of some remaining effects of the great drought of the previous year, which affected the sugar industry, crops generally gave good returns. But commercially the year 1921 was one of grave difficulty, and Mr. Cousins illustrates this by pointing out that whereas in 1920, a year of poor production, the value of the exports was £7,146,000, in 1921, a year of high production, the value was only £3,358,000. The sugar industry was particularly affected, as on account of the previous drought the exports were only 26,000 tons, or a reduction of 8,000 tons on those of 1920. The result of the heavy drop in prices, coupled with the poor crop, was that the value of the Jamaican sugar in 1921 was only one-sixth of what it was in 1920, and but for the manner in which the Government came to the aid of what Mr. Cousins styles the "basal" industry of the island, "a severe crisis involving widespread loss and suffering would have taken place." It is interesting to note that 55 per cent. of the sugar crop went to Canada, and 41 per cent. to the United Kingdom. The rum position was an exceptionally difficult one for producers during the year, and still is, on account of the falling off in the United Kingdom consumption on account of the pro-

hibitive £500 a puncheon duty, and the difficulty was accentuated by the establishment of larger central factories, which not only increased production, but also depreciated the quality of the rum. Mr. Cousins estimates the annual excess of production over demand as being 800,000 gallons, and considers the remedy clearly lies in its conversion into an etherised motor spirit. As regards cane cultivation, a considerable spread of the mosaic disease was reported, which is attributive to the maize crop, through the agency of some form of winged insect. In respect of the Uba cane imported from Natal in 1916, it is stated to have proved very valuable as a feed for dairy stock when mixed with a little cottonseed cake. Efforts to

and estuarial then existing in Barbados and Trinidad when the enormous masses of vegetable matter were buried and stored to give rise to the Manjak and petroleum beds of to-day.

"The veins of Manjak are stored in the series of anticlines which are characteristic of the Northern portion of St. Lucia. The intense heat of the sun's rays bearing on these parts about the period when the sun crosses the meridian brings about changes in consistency and volume of the subterranean Manjak, and it finds an outlet at the points of least resistance.

"The sum total of the indications of the presence of petroleum is such that it is to be hoped with confidence that a careful geological survey of the district will reveal areas which may be bored for oil, to some profit."



Trinidad's Tanker takes the water.

The s.s. *Tricentrol*, Trinidad's new tank steamer, is here shown just after leaving the stocks in the yard of Sir W. G. Armstrong, Whitworth & Co., at Newcastle-on-Tyne.

produce seedling canes during the year were unsuccessful.

The banana industry continued to prosper, although the record only showed 10,000,000 bunches, or 1,000,000 more than 1920, as having been exported. This by no means indicates the extent of the progress of the industry, which Mr. Cousins thinks may be relied upon to turn out 15,000,000 bunches during the current year. The Panama disease extended its ravages during the year. In this connection two more inspectors were appointed in December, and recently a further increase of staff to eight has been authorised. The coconut industry suffered from glutted markets, and although there was a slight increase in demand for copra, there was a reduction in value. At the date of the Report, coconuts were stated to be almost unsaleable. The logwood industry was in

a state of stagnation during the year. The 1920 receipts from logwood extract were £481,000, in 1921 £109,000, while the exports of logwood were valued at £28,000 in 1921, as against £269,000 in 1920. Orange oil sold fairly well, bringing in £40,000. The small export trade in citrus fruits remained at about the same standard as in 1920. Cacao showed a welcome recovery in quantity, but on account of low prices the receipts were only £97,000, as compared with £212,000 in 1920. The exports of coffee were 9,000 tons, as against 2,000 in 1920, and it is interesting to note that the Blue Mountain variety did not suffer the drop in prices which characterised the sales of the ordinary variety. Although pimento was for a long time unsaleable, 4,000 tons were exported, as against 3,000 in 1920. The pimento oil industry promises to be established. Investigation showed that a world's price of 8/- to 10/- a pound would be a paying, and a local capitalist had announced his intention of supplying the funds for a 10,000 pounds factory on a large property when the conditions were favourable. The sisal hemp industry has now passed the experimental stage, and it is stated that three factories in Clarendon, and the Government factory at Lititz were to be in operation during the current year, the latter in August. The Lititz experiments have been most encouraging, 1,433 lbs. of fibre having been obtained per acre, fine in texture, and with an average breaking strain of 3 lbs. per fibre. The sisal hemp market has of late passed through a serious over-production in Mexico, with an attempt to corner the market, which failed owing to the diminished demand. A more healthy market condition has, however, developed, and Mr. Cousins states that the prospects of prices which will enable sisal to be grown profitably in Jamaica are considered to be good. The export of cigars showed an increase of 30 per cent. in quantity, and reduction of £40,000 in value on the 1920 record; but the tobacco industry is stated to be suffering seriously from unfavourable conditions, and a considerable reduction in the area planted has recently taken place. Mr. Cousins' Report clearly shows that Jamaica is in a fair way to weather the industrial post-war storms, and is to resume her progress along the path to prosperity, without having suffered permanent damage, and with the benefit derived from exceptional experience.

"INFORMATION."

West India Committee Service Bureau.

Attention is called to the fact that a "Service Bureau" is now being conducted by The West India Committee. For many years past no small part of the work of The West India Committee has consisted in answering enquiries regarding the West Indies and their resources, and this it is now proposed to develop.

It will accordingly be the endeavour of The West India Committee not only to render personal services to its members in the manner already well known and appreciated, but also to answer expeditiously and with accuracy trade enquiries, and to

(Concluded at foot of next column.)

JAMAICA'S NEW INDUSTRY.

Pimento Oil Production.

The Report of the Jamaica Department of Agriculture for 1921 contains some valuable figures supplied by Mr. E. E. A. Campbell, M.Sc., the Industrial Chemist attached to the Department, relative to a new industry which is now being evolved in Jamaica, namely, the extraction of oil from the leaves of the pimento.

In investigating the question of the effect of altitude on the yield of oil, it was found that leaves gathered at 2,500 feet yielded on the average 0.8 per cent. of oil containing 80 per cent. of eugenol for the fresh male leaves, and 0.79 per cent. of oil containing 89.7 per cent. of eugenol for the female leaves. In another instance of about the same altitude—actually 2,000 feet—the male leaves yielded 0.9 per cent. of oil containing 79.13 per cent. of eugenol, and the female leaves 0.87 per cent. of oil, with 72.13 per cent. of eugenol. At an elevation of 1,500 feet, in one instance the male leaves gave 0.9 per cent. of oil with 80.22 per cent. of eugenol, and the female leaves 0.75 per cent. of oil with 89.0 per cent. of eugenol; while in another instance, at the same altitude, the male leaves only yielded 0.62 per cent. of oil containing 53.5 per cent. of eugenol, and the female 0.58 per cent. of oil with only 49.0 per cent. of eugenol. These figures show that altitude, within, of course, certain limits, does not affect the oil strength of the leaves.

Observations were also taken to see how far the month of plucking affected the yield, but there is no indication that any one month between March and November caused a better yield than another. Although as a rule the percentage of eugenol in the oil was high, some of the oil obtained from one district contained as much as 68 per cent. of a non-eugenol body, which in its turn consisted of at least three different substances, and Mr. Campbell considers it advisable that a market for these bodies should, if possible, be found.

Mr. Campbell's report closes with a word of warning to private individuals distilling the pimento oil. This oil has to compete with oil of cloves in the markets of the world. The clove yields from 10 to 13 per cent. of crude oil containing 70 to 93 per cent. of eugenol. Pimento leaves, on the other hand, contain slightly over 2 per cent. of oil (it is presumed that in this instance the dry leaf is referred to), and it has been shown that at certain seasons of the year the eugenol content may be as low as 32 per cent. It is evident, says Mr. Campbell, that the pimento oil industry must, if it is to succeed, produce an oil of not less than 95 per cent. eugenol content for export.

furnish information to intending visitors to Bermuda, the British West Indies, British Guiana and British Honduras. Such information will be supplied free of cost. Enquiries should be marked "Service Bureau" on the envelope, and addressed to The West India Committee, 14, Trinity Square, London, E.C.3.

SCIENCE AND AGRICULTURE.

The following notes have been contributed exclusively to THE WEST INDIA COMMITTEE CIRCULAR by the Imperial Department of Agriculture for the West Indies.

THE AGRICULTURAL COLLEGE.

The work of equipment of the laboratories and classrooms and the arrangement of the library in the temporary building of the West Indian Agricultural College at St. Augustine in Trinidad has been proceeding apace, and before these notes are published the first term will have opened with eighteen students on the college register, including three post-graduates from England, two students enrolled for a special course, and 13 diploma students from Barbados and Trinidad. Meanwhile, all the members of the Academic Board and clerical staff of the Imperial Department of Agriculture have reached Trinidad.

CROP CONDITIONS IN THE LEEWARD ISLANDS.

A very interesting report has just been received from Hon. A. E. Collens, F.I.C., Superintendent of Agriculture, on a visit paid by him to St. Kitts in August. Mr. Collens found the cane crop in good condition generally, but it had, like cotton in places, suffered from dry weather. In both St. Kitts and Nevis there were instances of development in pig-raising. Mr. Collens thinks there is scope for greater coconut planting in St. Kitts and Nevis.

A tobacco expert from Jamaica, engaged by the St. Kitts-Nevis Government, has arrived in the Presidency, and, as already reported in the CIRCULAR, it is hoped to develop a local tobacco industry. For the present it is not expected to do more than produce plug tobacco for local consumption; but the newly-arrived expert is stated to be an experienced cigar maker, which brings the Kittifonian cigar within the realm of practical consumption.

A communication from Montserrat shows that further action is being taken to retain control over the pests of cotton in that island, more particularly pink boll worm. Regulations have been passed enforcing the fumigation of all cotton seed for planting. The necessary appliances have been supplied, and the Government is furnishing carbon-bisulphide at cost price.

AGRICULTURE IN TRINIDAD.

Definite proposals for the formation of the Agricultural Bank have now been despatched for the approval of the Secretary of State for the Colonies. The desirability of forming the Bank is acknowledged by all the leading interests in the colony. The suggestion that the Department of Agriculture should function as part of the machinery in respect of valuations, and control in respect of the application of loans, is novel and progressive.

Great progress is being made with the reclamation of the Caroni swamp. So far as can be decided by casual inspection, the reclaimed land should in a year or two be of high fertility and well suited to the growth of rice, sugar-cane, and "truck crops."

(Continued at foot of next column.)

UNITED STATES SUGAR DUTIES.

The following table showing the full duty and Cuban preferential duty rates on sugar entering the United States under the new tariff is published for purpose of reference.

Pol. 100°	Full Duty Cts. per Degree.	Cuban Sugar Cts. per degree.
...	2.390	1.9120
90	2.344	1.8752
94	2.298	1.8384
97	2.252	1.8016
96	2.206	1.7648
95	2.160	1.7280
94	2.114	1.6912
93	2.068	1.6544
92	2.022	1.6176
91	1.976	1.5808
90	1.930	1.5440
89	1.884	1.5072
88	1.838	1.4704
87	1.792	1.4336
86	1.746	1.3968
85	1.700	1.3600
84	1.654	1.3232
83	1.608	1.2864
82	1.562	1.2496
81	1.516	1.2128
80	1.470	1.1760
79	1.424	1.1392
78	1.378	1.1024
77	1.332	1.0656
76	1.286	1.0288
75	1.240	.9920

THE MAP OF THE WEST INDIES.

Mr. Churchill's Appreciation.

The following testimony to the value of The West India Committee's Map of the West Indies has been received from Mr. Winston Churchill, when Secretary of State for the Colonies:—

"Mr. Churchill considers the Map to be a valuable one, and notes that it contains diagrams indicating the areas and populations of the West Indian Colonies and islands and other special features which have evidently been carefully thought out."

The price of the Map, which is obtainable from The West India Committee, 14, Trinity Square, London, E.C.3, is as follows:—

	Price U. K.	Post Free U. K.	Post Free W. Indian.	Other Colonies.
Sheet	7/6	8/6	9/6	10/6
Mounted and folded	15/-	15/6	15/6	15/6
Mounted on rollers	12/6	14/-	19/-	*

*Canada 22/-; elsewhere according to destination.

such as cabbages, yams and Indian corn; and even coco-nuts if the surface drains are made deep and frequent enough.

A great feature of the new land is that it will be possible, by means of a pumping station, to regulate the water-table. This is tantamount to the control of soil-water conditions—easily the most important matter in crop production.

JAMAICA'S DUSTY CAPITAL.

The Medical Officer's Advice.

The dust of Kingston, Jamaica, has become so proverbial that it is well to know what measures are being taken to counteract this nuisance and bring that backward city up-to-date from a sanitary point of view. Dr. Murray, the Medical Officer of Health, in his annual report to the Mayor and Council, states that the cleaning of the city has been performed regularly and satisfactorily. Few people seem to know that the most important thoroughfares are cleaned daily, and the others not less than three times per week. Nineteen carts and eight waggons are employed daily for the removal of garbage, and an average of 3,700 loads of street and household refuse is thus removed to the deposit ground and burnt every month. The total quantity of street and house refuse thus disposed of in the city yearly aggregates 29,696 loads, or 22,297 tons, and goes to reclaim swamps to the west of the city, and thus make valuable land. The Government Rum Stores have been built on some of such reclaimed land.

During the year ended, a large number of garbage boxes have been placed at suitable localities throughout the city, and the people are learning to make use of them rather than of the streets, as has been their inveterate habit hitherto. A gang of labourers has been employed with wheelbarrows to sweep up and remove daily animal droppings on some of the principal thoroughfares, like King Street and Harbour Street. Dr. Murray recommends an extension of this movement if funds are available.

Dr. Murray goes on to state what he believes to be the needs of Kingston. They are:—

1. An adequate water supply for the extension of the sewerage system;
2. The treating of the streets, yards and wharf premises so as to rectify the dust nuisance.

The Hermitage Dam Scheme is a necessary preliminary work to the extension of the sewerage system, and this system (for obvious reasons) must precede the reconstruction of the streets; mains, and so on, must first be laid down. Whilst there is no doubt that the dust is annoying and very disagreeable, and its abatement would greatly add to the attraction of the city, much wild exaggeration is being indulged in. The plain fact is that the dust is not the cause of the endemicity of typhoid fever, nor the starting point of epidemics.

WANTS.

Nurse wishes to return to Jamaica. Take lady, gentleman, or child. Would accept moderate fee and passage paid. Excellent testimonials. "H. L. G." 69, Palmouth Road, New Kent Road.

PARTNERSHIP required in West Indies. Estate or Commercial. Capital available for investment up to £5,000.—Apply F. G., care of THE WEST INDIA COMMITTEE CIRCULAR, 14, Trinity Square, E.C.3.

A NATURALIST IN TRINIDAD AND TOBAGO.

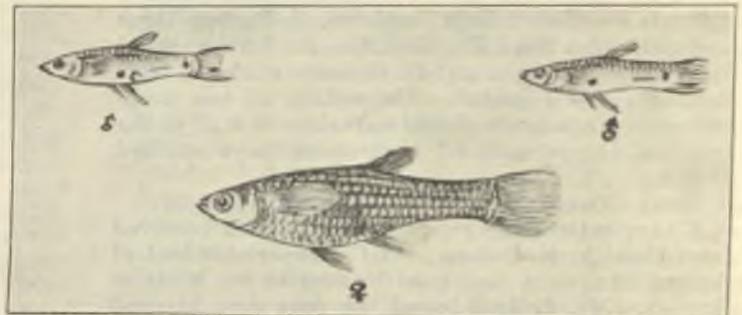
By P. LECHEMERE GUPPY

Member of the Civil Service, Trinidad and Tobago.

(Continued from page 468.)

HOW FISH PREVENT MALARIA.

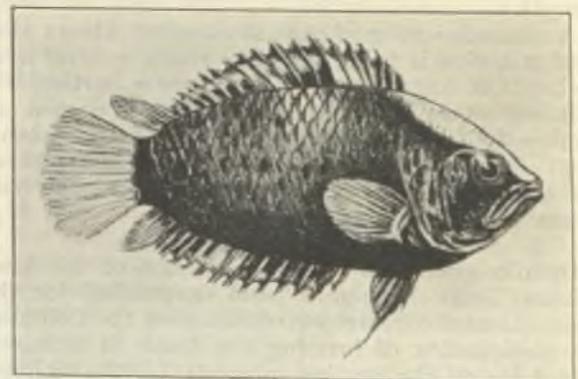
It would seem that in all countries where malaria exists mosquito-destroying fishes are to be found.



"Millions" or *Lebistes Reticulatus*.

These tiny fishes, shown here in natural size, well known in Trinidad and Tobago, are often found alongside *Poecilia vivipara*, the females of which resemble those of *L. Reticulatus*. "Millions" have been introduced into many countries in the hope that they will check malaria. This famous little fish has also been described under the following names: (a) *Poecilia Reticulata*, (b) *Lebistes Poeciloides*, (c) *Girardinus Reticulatus*, (d) *Acanthocephalus Reticulatus*, (e) *A. Melanconus*.

These do a good deal towards keeping the water free of larvae; but their sphere of usefulness is naturally restricted when the great number of breeding places that mosquitoes can make use of is taken into account. Drains in fields and roads,



Polycentrus Schomburgkii.

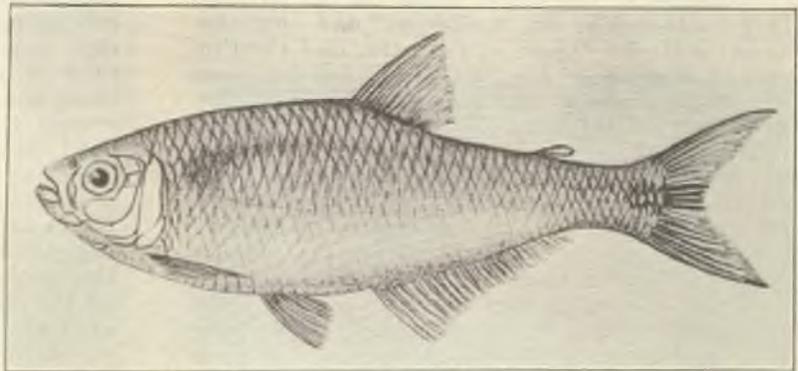
"King or Black Cascaroh" (natural size). The freshwater fish that blushes. Found in Trinidad, Venezuela, Guiana. It will eat anything, including mosquito larvae.

wheel ruts, holes made by hoofs of cattle and horses when the ground is soft, all collect water in rainy weather. Inundated fields with basin-like hollows are favourite breeding-places; so are many other situations that fishes never reach. All this points to

the fact that thorough drainage and sanitary methods, particularly in the vicinity of dwelling-houses, combined with other precautions recommended by the sanitary authorities, are the only trustworthy safeguards against the spread of malaria.

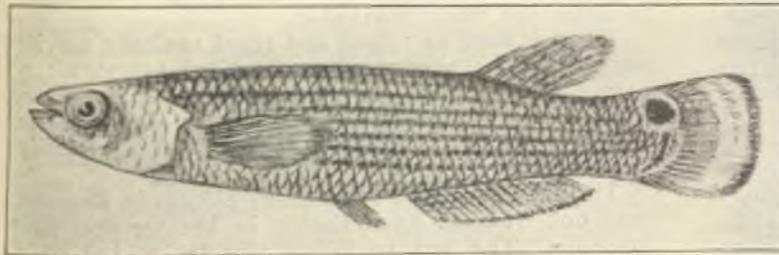
All the fresh and brackish-water fishes in Trinidad and Tobago (well over 40 species) may be classed as mosquito-destroying fishes with but few exceptions.

"Millions" are well represented in both Islands: the smallest species is *Lebistes reticulatus*, in Tobago corresponding with *Girardinus guppyi* in Trinidad, and bearing close resemblance to one another. They are found in fresh-water streams and ponds everywhere. The other species, *Poecilia vivipara*, is common to both Islands, and found in brackish water only. The first-named, like its Trinidad congener, is not affected by the quality of the water it sometimes has to live in; this may be soapy, stagnant, or very evil-smelling or brackish; "Millions," however, cannot live in rain-water for long.



Tetragonopterus Guppyi.

A typical freshwater "Sardine," fond of mosquito larvae, as all these fishes are. There are seven different species of "Sardine" (natural size). *T. Guppyi* is known from Trinidad only.



Haplochilus Harti (Blgr.).

"Small Gnabin" (natural size), a most useful mosquito destroying fish, formerly known as *Rivulus Micropus*. Found in Trinidad, Tobago and Venezuela.

They require water with lime in it, and seem to thrive best in dirty water—the "dry" river in Port of Spain, for example. *Poecilia vivipara* is a brackish-water swamp fish, and is at home where sea and river meet, and where the mud is thickest and smells the rankest.

Superficially, the female of *Poecilia vivipara*, the brackish-water "Millions," resembles closely the female of *Lebistes reticulatus*, the common fresh-water "Millions"; on examination, however, it will be seen that there is a black humeral spot, and a few small spots ventrally, on the former, by which it may be distinguished from the latter.

The males of the two species are readily recognised. In *Poecilia vivipara* the body is marked with two or three transverse blackish bars, which in certain lights appear iridescent blue. The markings on the caudal (tail) are very consistent, there is an elongate black spot with vermilion streak near first ray; the humeral spot, as in the female, is also present. The males of *Lebistes reticulatus* are remarkable for bright colours and great variability in markings on body and caudal (tail), the shape

of the latter sometimes differing. This little fish has been known by no less than six synonyms, one of which, *Girardinus guppyi*, it received over fifty years ago, Dr. Gunther, then fish expert at the British Museum, naming it after the late R. J. L. Guppy, F.L.S., F.G.S., etc., who sent specimens

from Trinidad. It has been introduced into many countries in the hope that it will check malaria. In the writer's opinion, *Haplochilus harti* would be more useful in this connection, but, of course, the prevention of malaria is a question of drainage rather than that of the introduction of mosquito-destroying fishes into countries where, in all probability, these fishes already may be found.

The three species mentioned above are often found in the same localities near the sea in Trinidad and Tobago. The *Poeciliinae* ("Millions") are great favourites with European aquarium-lovers.

Rivulus harti is the most ubiquitous of our fishes. In habits it is solitary, often remaining for long periods in one spot near the surface of the water, apparently motionless: it can, however, become very active and restless, and leaps from place to place, using its broad fan-like tail with such effect that it is enabled to work its way overland in the wet season in search of food. It can also, by means of its tail, adhere to vertical surfaces out of the water, and in this way reach small isolated pools formed by the rains, as well as pools high up in the hills, where other fishes cannot reach: this makes it a very useful mosquito-destroying fish (Syn: *Haplochilus*).

A list of the Trinidad fresh-water fishes, with coloured plates, was published in Proc. Zoo. Socy., London, 1906.

To obviate the removal of their names from the mailing list for the Circular, the few members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

SANITATION IN THE TROPICS.

BY PROFESSOR W. J. SIMPSON, C.M.G., M.D.,
F.R.C.P., D.P.H.

The author of this article is one of the foremost living authorities on sanitation and hygiene. Formerly Health Officer of Calcutta, and the Professor of Hygiene at King's College, London, since 1898, he has been a member of several missions which have visited the Colonies from time to time to investigate and check epidemics of dysentery, enteric, plague, and other diseases, with successful results. He is co-Editor of the "Journal of Tropical Medicine" and was associated with Sir Patrick Manson as a Lecturer at the London School of Tropical Medicine. In this article Professor Simpson emphasises the need for the adoption of preventative measures against disease, and shows that the prevention of disease is a financial gain.

Asked to write an article on the Importance of Sanitation in the Tropics, I accede willingly to the request. There are several reasons why sanitation in the Tropics should engage attention at the present time. The trouble in the Near East, with its many refugees, is likely to accentuate and impart virulence to epidemic diseases that have for some time been smouldering in that region. The war has disturbed the sanitary organisations, imperfect as they were to protect the larger coast towns. The removal of conditions favourable to the spread of epidemics and the maintenance of endemic disease has fallen into arrears. The danger is accordingly greater than it was in pre-war days, when sanitation was more or less to the fore, and its value was beginning to be appreciated by administrators as well as by sanitarians. Not that our tropical possessions were then safe from destructive epidemics. As a matter of fact, they were not. The organisation for the prevention of disease was only in an embryonic state as compared with what was needed. To promote the emergence from this early stage of development of sanitation to full maturity is important for the welfare of our tropical possessions. It is also important for Great Britain. Few realise, at a time of economic distress and paralysis of continental trade, the vastness and potential riches awaiting development in our tropical lands. These will grow nearly everything, and what they cannot supply in food and raw material, Australia, Canada and South Africa can. They are awaiting the enterprise of the British people; but there is one proviso, and it is that the open sesame to these riches is to make the people healthy and contented, and save them from the ravages of malaria, smallpox, dysentery, typhus fever, cerebro-spinal meningitis, sleeping sickness, filariasis, and other preventable diseases which in the locality that these diseases happen to prevail seriously affect the health, vigour, and productive power of the inhabitants. It is only by this means that the Tropics will flourish under the white man.

One of the great difficulties in preventive medicine has always been to convince administrators

that most of the communicable diseases are preventable, and are due to removable causes, and that prevention is a paying concern. Ninety years ago it required the stimulus of an epidemic of cholera, with over 40,000 deaths, partially to awaken the authorities and the public in England to a sense of the danger attaching to the deplorable insanitary conditions under which the inhabitants lived, and the necessity of introducing administrative and sanitary measures for the removal of these conditions brought to light after the epidemic by the several Commissions of enquiry. But it was not until the alarm created by the approaching invasion of another epidemic of cholera in 1848, which caused some 54,000 deaths, that the recommendations began to be carried out with enthusiasm and some expedition. Even after the alarming experience of this second epidemic, the town of Worcester refused, on the plea of expense, to appoint a Medical Officer of Health under the first Public Health Act, which was permissive.

It was the same with the Army: it needed the scandal of one-third of the Army being disabled in the early part of the Crimean War for it to be realised that sanitary measures must be taken both at home and abroad to secure a healthy army.

Once the lesson was learnt and the advantages appreciated the advance in sanitation and its administration was remarkable.

There is now an urban and rural sanitary service supervised by a county and central sanitary service. Malaria, dysentery, smallpox, typhus fever, typhoid fever, and scurvy, which were endemic in England in pre-sanitation days, have practically been abolished.

The attention paid to sanitary reform in England was not without its influence in her tropical possessions. The first to follow was India, but on a tentative scale, that could only benefit a very limited portion of its population. It was sufficient to demonstrate that wherever the principles of hygiene are continuously applied, whether in the Tropics or in a temperate zone, provided they are adapted to the customs of the people the same successful results are obtained. The effect of sanitary measures and a better selection of sites for military stations, cantonments and jails reduced the annual death-rate of the British soldiers in India from 80 per 1,000 per annum, to less than 5 per 1,000 in recent times. The death-rate of Indian soldiers has also fallen to a similar extent, while that of the Indian prisoner has been brought down to 12 per 1,000 annually.

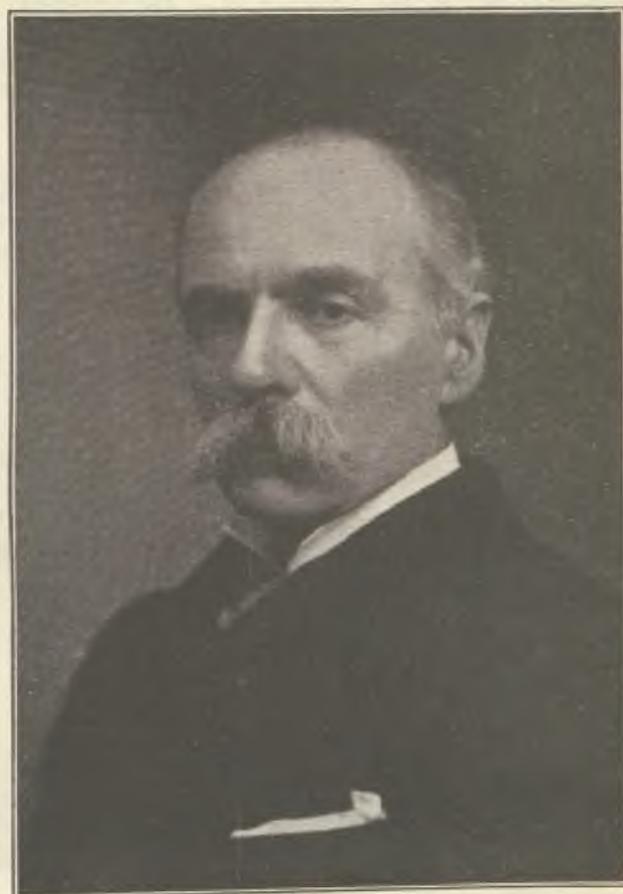
In the few towns where a Health Officer was appointed, with a trained sanitary staff, the health of the civil population has improved. In the olden days the Europeans in Calcutta who lived through the rains used to meet and congratulate each other on their good fortune of not having joined the majority. Nowadays the European is about as healthy as the man at home. But, as stated previously, the sanitary service in India was limited in its scope, and quite unable to deal with epidemics in that vast country. It could not save India from the plague which was imported in 1896, and has since caused some 12 million deaths—and is still there. Two years before the plague arrived

attention was drawn to the defenceless state of the country and the need of an efficient sanitary service, but such a service as that recommended is only now in the process of completion. If we turn from India to the West Indies we find that in the early days of the English occupation the mortality among European soldiers was greater than in the East Indies. Fever, scorbutic dysentery and phthisis were extraordinarily prevalent, and it was estimated that the life of a regiment was about five years. Later, in twenty years, from 1817 to 1836, the mortality in Jamaica was 121 per 1,000 annually, in Trinidad 106, in Barbados 55, in St. Lucia 122. The mortality occurred under the following conditions. The food of the soldier consisted mainly of salted meat with but scanty supply of vegetables. The drinking water was taken from polluted sources, the barracks, built on unhealthy sites, were badly constructed, without ventilation and were overcrowded, the cubic space for each man being about 200 feet. The sanitary arrangements were foul and neglected and of the most primitive character. Over-eating, intemperance in drink, unsuitable clothing and no exercise added also their quota of unhealthiness. As the conditions mentioned were improved a steady decline in the death-rate took place, falling more than ten times below the former rates.

The discoveries of Manson and Ross and of others in the later years of the 19th century and the establishment of the London and Liverpool Schools of Tropical Medicine, with the large number of medical men trained in these schools, and sent to the tropics created a new spirit in our widely scattered tropical possessions. The special training they received in the treatment of tropical diseases did not exclude attention to prevention. Medical officers, on going to the Tropics, began to take stock of the causes and conditions giving rise to these diseases, and favouring their endemicity and spread. As a result Health Officers have been appointed to some of the larger towns, and in a few local Governments is to be discerned the nucleus of a central sanitary service stimulated by the Medical and Sanitary Advisory Board at the Colonial Office. The result is that marked improvement in health has been effected by anti-malarial measures in Hong Kong, the Malay States, and in some of the coast towns in West Africa. But, according to the highest credit to these pioneers for their work, no one familiar with the Tropics and the insanitary conditions existing everywhere among the Native population can be satisfied that this is enough to ensure safety against either epidemics or endemics. Like India, most of the localities are defenceless against the spread of epidemic diseases. Moreover, until these insanitary conditions are removed, very little impression will be made on the malaria, hook-worm disease, filariasis, dysentery and other diseases that may be endemic in the area. It is the common endemic diseases that do a vast amount of harm to the community, causing a high mortality, much sickness and debility. Epidemic outbreaks only occur at intervals, but when they do appear, and there is no properly organised sanitary

service to combat them at once and dependence has to be relied on measures hastily supervised to counteract and lessen its ravages, it is seldom with success. But even with success it is not prevention.

There is even to-day a reluctance to spend money on an efficient sanitary organization and on sanitary measures in the Tropics. A common



Professor W. J. R. Simpson, C.M.G.

The eminent authority on Sanitation in the tropics, who contributes an article on the subject to the current issue of THE WEST INDIA COMMITTEE CIRCULAR.

plea is, there are no funds to remove insanitary conditions. Even when an attempt is made in the right direction sanitation generally receives only the crumbs from the Budget-loaf after every other administrative project receives its share of bread. A properly trained sanitary service with a thoroughly capable, experienced and well-informed Sanitary Commissioner at its head is a cheap and sound investment. It is not so if the head is inexperienced in the practice of preventive medicine. The sanitary service, under these circumstances, is liable to become expensive.

The mixing up also of that which belongs to curative medicine with preventive medicine is an obstacle to the advancement, and full benefit, of the latter.

(To be concluded.)

PORT OF LONDON AUTHORITY.

Mr. Lloyd George Opens New Building.

In their present offices in Trinity Square The West India Committee have notable neighbours, and none less so than the Port of London Authority, whose new headquarters on Tower Hill were opened by Mr. Lloyd George, the Prime Minister, on October 17th, in the presence of a distinguished company.

ing life in the Navy Office, which stood on the site of the Crutched Friars warehouse. Peter the Great, while working in the shipyard at Deptford, resided in Muscovy Court in a house demolished in the course of erecting the new building. The association of both with that neighbourhood had been perpetuated by retaining the name of Muscovy Street in one of the new streets and calling another Pepys Street.

Mr. Lloyd George said that the building was a real contribution to the process of beautifying London which had been going on notably during the last generation. It was a great thing for the great insti-



The Port of London Authority's New Building.

This magnificent building which was formally opened by the Rt. Hon. D. Lloyd George, the then Prime Minister, on October 17th, in the presence of a distinguished gathering, immediately adjoins the new offices of The West India Committee.

Lord Devonport, chairman of the Port Authority, presided at the ceremony, which took place in the Rotunda.

In welcoming the Prime Minister he recalled the services of Mr. Lloyd George, as President of the Board of Trade, in promoting and piloting the Act of Parliament which established the Authority in 1908. The Prime Minister's presence was also appropriate because of the fact that his illustrious predecessor, William Pitt, in 1800 had performed the ceremony of laying the foundation-stone of the West India Dock, the first of the series of enclosed docks which constituted the modern Port of London.

Mr. Pitt had with him on that occasion many members of his Ministry, and by a happy coincidence those same offices were represented at the ceremony by their holders in Mr. Lloyd George's Cabinet.

Recalling the historical associations of the site, Lord Devonport referred to the immortal diarist, Samuel Pepys, who spent the major part of his work-

tutions of the country to be housed in buildings that were worthy. Nothing distressed one more than to go to some towns or cities in this country that had really made a great contribution to the trade and commerce of our land and to find there was no outward visible sign in the permanent edifices of those towns that the people there understood there was something beyond the mere making of money in connection with commerce.

Speaking of the trade situation, the Prime Minister said that he was glad to find that there was a steady and strong current of improvement. The tide which had been going out, leaving sandbanks and mud-heaps behind, was beginning to creep back. They could see its turn. It was coming on. During the last six months the imports of the Port of London were seven per cent. better than they were in the corresponding six months last year. A more notable figure was exports, which were better by fifteen per cent. Let them be of good cheer and keep up their hearts. Trade was improving.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

An Italian firm has succeeded in obtaining from the Brunner rose, which grows in the Riviera, an "attar" of which about 22 pounds was placed on the market in 1919, the first year of its appearance. It is said that one pound weight of this essential oil requires for its manufacture 5,500 pounds of the rose petals.

The "Mottling" disease of the sugar-cane has, it is stated, been successfully tackled in Porto Rico by "roguing," i.e., the removal of the entire diseased stool. The process has been applied on the lands of the Pajardo Sugar Company, an account of the results being given in *Facts about Sugar* of July 22nd.

Experiments conducted in Hawaii in connection with ground nuts point to the selection of the seed giving a one-third increase in crop. Ground nuts require rotation, and should only be grown on the same soil once every two or three years, and it is also of great importance that the land should be free from weeds.

Nitre exists in the form of an efflorescence on the soil in many districts of Indo-China. These nitre fields are formed on dry beds of what were once swamps by the slow combined action of moisture, heat, and sunlight. An enormous quantity of potassium nitrate is lost every year in these fields which might be recovered.

The best method of preservation of fresh fodder plants is, according to the *Deutsche Zuckerindustrie*, to submit them, in a finely cut up condition, to the action of the electric current, which at 40 to 50 deg. C. has a sterilising effect, and at the same time does not destroy the vitamins. The electrified preserved fodder is said to be quite equal to green fodder.

The Seed Testing Station of the National Institute at Cambridge carries out important and increasing duties. It is conducted at the public expense, and its functions include the testing of seeds and the issuing of purity and germination reports. It also conducts research work in connection with seeds. In 1921 no less than 24,000 reports were issued by the Station.

A plant for the creosoting of timber is being erected in Kenya Colony. It is situated in the centre of a large forest area, and will have a capacity of 500 tons a month, taking timbers up to 40 feet in length. The saturating process will be done under high pressure, the liquid used for creosoting being drained off when the pressure is relieved. The timbers are then submitted to a vacuum treatment, a further amount of the liquid being thus recovered.

The soil, says Mr. Wilkins in *Agricultural Research and the Farmer*, is no longer looked upon

as an inert mass of mineral particles; it is a great living complex, teeming with countless millions of living things, each struggling for existence, and each having some influence on those complicated chemical changes on which the growth of all plants depends, and which, in the course of ages, have turned a stratum of bare rock into something approaching a vast chemical laboratory.

Vitamines do not appear to solve all the problems of mal-nutrition as the result of food. Monotony of diet may be looked upon also as one of the factors. Thus, Cambridge research has shown that rye alone is a very unsatisfactory food for young pigs, but that when mixed with a handful of grass per day it becomes thoroughly wholesome. In the same way it has been found at Aberdeen that the "rickets" of pigs depends not so much on a deficiency of vitamins in the food as on a lack of mineral matter.

Mr. Jas. Crabtree, Superintendent of the new British Guiana Sugar Planters' Experiment Station, makes some sound remarks in his report for 1921. While, he says, the search for new cane varieties is of the utmost importance in the quest for increased crops, it will not do to sit down and wait for them. Reliance on improved varieties must not be overdone. "If," he goes on to say, "we look around at other sugar producing countries we find that the only ones producing bigger crops are those paying closer attention to cultivation operations."

The protection of cattle and horses against flies is in its way quite as important as it is in the case of human beings. The United States Department of Agriculture has been experimenting in the direction of fly "repellents" for internal use, and has embodied the results of the experiments so far conducted in this direction in Bulletin No. 180. These do not point to success, and internal repellents do not seem likely to replace external repellents, such as coal tar, naphthalene, petroleum, kerosene, turpentine, quassia, colocynth, fish oil, and various essential oils for the purpose. The trouble is that the effect of these only lasts for a few hours.

D625 continues to be the dominant cane in British Guiana. Out of 60,596 acres in cultivation during the present year, the *Journal of the Board of Agriculture of British Guiana* gives the area in this cane as being 87,907 acres, with 6,819 acres of this cane mixed with other seedlings and Bourbon. D145 comes next with 4,601 acres, and D118 with 2,578 acres. There now are only 1,609 acres of Bourbon cane remaining. The balance from the above is made up of upwards of 28 varieties, all modern canes, with the exception of the Green Transparent. The mean return per acre of commercial sugar in 1921 was, for the larger estates, for D625, 2.06 tons per acre; B208, 2.11 tons per acre; Bourbon, 2.10 tons per acre; D145, 2.06 tons per acre; Green Transparent, 2.01 tons per acre. The remainder yielding below 2 tons.

UNITED STATES TARIFF.

How it affects West Indian Products.

The history of the duties on sugar in the Bill for the revision of the United States Customs Tariff, which took effect from midnight on September 21st last, was dealt with fully in the last issue of the CIRCULAR (page 464). The new rates of duty on some of the principal products of the British West Indies are set forth in the following table. It will be seen that the Act, one of the sub-titles of which declares it to be "an Act to encourage the industries of the United States," gives considerable protection to articles in their raw and unmanufactured state as against the finished product.

Angostura Bitters, per proof gallon	...	...	...	\$2 50
Arrowroot (in its natural state)...	...	...	...	free
Asphalt	...	...	...	free
Bananas, green or ripe	...	...	...	free
Boxes, barrels, etc., containing oranges, limes, etc.,	...	...	...	25 per cent. <i>ad valorem</i>
Cacao and Cacao beans	...	...	...	free
Cacao butter	...	...	...	25 per cent. <i>ad valorem</i>
Chocolate and cocoa, sweetened and unsweetened, powdered or otherwise prepared (but not less than 2 cents per pound)	...	...	...	17½ per cent. <i>ad valorem</i>
Chicle, crude	...	...	...	per lb. 10 cents
" treated	...	...	...	15 "
Cigars, per lb.	...	...	...	4.50 duty and 25 per cent. <i>ad valorem</i>
Coconuts, each	...	...	...	½ cent.
Coconut oil, per lb.	...	...	...	2 cents.
Coffee	...	...	...	free
Copal gum	...	...	...	"
Copra	...	...	...	"
Cotton	...	...	...	"
Diamonds, rough	...	...	...	10 per cent. <i>ad valorem</i>
" cut but not set	...	...	...	20 "
Ginger root, unground, per lb.	...	...	...	2 cents
" ground	...	...	...	5 "
" candied or preserved	...	...	...	20 per cent. <i>ad valorem</i>
Grapefruit, per lb.	...	...	...	1 cent
Hides, uncured	...	...	...	free
Honey " per lb.	...	...	...	3 cents
Lemons, per lb.	...	...	...	2 cents
Lime, citrate of, per lb.	...	...	...	7 cents
Limes, per lb.	...	...	...	1 cent
Lime Juice and Orange Juice	...	...	...	free
Mahogany, in 1 log	...	...	...	10 per cent. <i>ad valorem</i>
" sawed	...	...	...	15 "
" further treated	...	...	...	20 "
Mace, unground per lb.	...	...	...	4 cents
" ground	...	...	...	18 "
Nutmegs, unground, per lb.	...	...	...	2 "
" ground	...	...	...	5 "
Orange Oil	...	...	...	25 per cent. <i>ad valorem</i>
Palm Nut Kernels	...	...	...	free
Pepper, black or white, unground, per lb.	...	...	...	2 cents
" ground	...	...	...	5 "
Petroleum Oil, crude, refined or fuel	...	...	...	free
Pimento, unground, per lb.	...	...	...	1 cent
" ground	...	...	...	3 cents
" whole, preserved, per lb.	...	...	...	8 "
Pineapples, per crate (1¾ cubic feet) in bulk, each	...	...	...	22½ cents
" in bulk, each	...	...	...	1 cent
Rice, rough (paddy) per lb.	...	...	...	1 "
" brown (hulls removed) per lb.	1½ cents
" milled	2 cents
Shingles	free
Tamarinds	"
Turtles	"

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WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbuda Swept by Hurricane.

Captain Downing, the Resident Magistrate, reports that a severe hurricane, the worst within memory of the inhabitants, visited the island of Barbuda, West Indies, on the night of September 15th, and it is feared that the inhabitants, less than 1,000, have suffered very severely. The centre of the hurricane swept directly across the island with enormous violence, leaving a path of desolation and ruin in its track. None but the most sheltered houses withstood its onslaught, and this terrific phenomenon of Nature laid low solid stone buildings which it was thought nothing but an earthquake could move. The barometer dropped an inch and a half in a couple of hours, and it was impossible for anyone to remain out in the open. Fortunately, none of the inhabitants were killed, though there were some severe injuries. The destruction of property, however, is immense. Out of 270 houses in one village 57 are reported as "demolished altogether," 69 are "very badly damaged," and 38 are "damaged," with a result that most of the inhabitants are homeless. The cotton crop, the staple industry, has suffered severely, whilst the maize crops and livestock of the peasants are seriously affected. The whole country looks as if it had been swept by fire.

Rum Restriction in British Guiana.

The agreement regarding the exportation of rum was discussed at a Council Meeting of the British Guiana Sugar Planters' Association on September 11th. Some of the local syndicates are of opinion that the minimum price for rum as fixed might with advantage be reduced, while the Council was of opinion that there was some likelihood of rum being bought by outsiders locally at lower prices for shipment to London, it being accordingly suggested that steps should be taken in the home country to prevent leakage in this direction.—A rich find of diamonds is reported (according to the *Daily Chronicle* of September 16th) by prospectors working from the Potaro Landing to the mouth of the Kuribong River. A quartz hill has also been discovered in the same locality.—Mr. Nelson Cannon has declined an offer of \$62,000 from the British Guiana Turf Club for the Bel Air Park, with stands, etc., complete.—The death took place on September 15th of Mr. J. R. Wharton, a solicitor, son of one of the earliest Indian settlers, and brother of Dr. J. Hewley Wharton.

British Honduras and St. George's Cay Day.

The one hundred and twenty-fourth anniversary of the Battle of St. George's Cay, at which the stalwart Baymen scoured the Colony against Spanish aggression, was celebrated on September 12th, the celebration being, in the words of the *Clarion*, "among the most fitting and worthy of any which have preceded it," processions, parades, athletic sports meetings and concerts being held to mark the occasion.—The Canadian Government Merchant Marine have inaugurated excursion trips between Belize and Kingston, the return fare being \$75, with a ticket good for two months.—A sad fatality occurred at St. John on August 28th, when Mr. R. S. P. Usher was accidentally shot. Mr. Usher had a fine record in France in the war, during which two of his brothers were killed.

Dominica's Financial Condition.

The two newly-appointed official members of the Legislative Council, Mr. V. P. Blanchard and Captain Lindop, took the oath on September 15th. The Acting Administrator afterwards addressed the Council, pointing out that the Presidency's finances at the close of last year had been such as to cause concern, there being a deficit of £4,000. It had been hoped to present a far more satisfactory statement for this year, but the unprovided-for expenditure on roads that the Administrator had been called upon to face to repair storm damage, and the Alastrim visitation would seem to have thwarted this. He thought that the Medical Department had got this epidemic fairly under control. Meanwhile he had asked the Governor to use his influence with neighbouring Colonies to secure a mitigation of quarantine restrictions on certain conditions.—The following resolution was tabled by Mr. Cecil E. A. Rawle, Unofficial Member of the Council: "That this Council, being of the opinion that the concession of a measure of popular representation on the Legislature to the taxpayers of this Presidency is necessary, respectfully urges and recommends that the Constitution Act, 1898, be amended so as to provide for the election, in lieu of nomination, of a portion of the Unofficial Members of the Council." The *Dominica Chronicle* believes that this resolution has public opinion solidly behind it, the most substantial elements in the Presidency being unanimously in favour of the desired constitutional changes.—Mr. Leavitt has been appointed Manager of the Royal Bank of Canada in Dominica, in succession to Mr. Sands, promoted to Jamaica.

The Health of St. Kitts.

Under the heading "Fair Play," the *St. Kitts-News Bulletin* publishes an article dealing with recent allegations that the Government expenditure has increased from £50,000 to £102,000 in the past eleven years with nothing to show for it. It is pointed out that this period has witnessed an increase of a hundred-fold in individual expenditure, whilst attention is drawn to the following improvements that have been made to the amenities of the Presidency during this time: Cunningham Hospital improved in appearance and efficiency; new drains, culverts, streets and opening up of congested districts in Basseterre; greater accommodation in the Leper Asylum at Sandy Point; Basseterre piers repaired, and the Sandy Point Pier widened and lengthened; the Alexandra Hospital, Nevis, restored and renovated, and a Cottage Hospital erected; the laying down of a water supply for Anguilla started; filling up of the pools on Pond Pasture, and the oiling of the Canadian Swamps, with resulting diminution of mosquitoes; foundation laid for a Poor House on the Laguerite lands, with much improvement in the medical and health services.

St. Lucia's Preference on Transhipped Goods.

By Regulation gazetted on September 16th, Empire goods which have been transhipped en route at a foreign port, in order to obtain preferential treatment, when a through bill of lading or railway consignment note is not available, must have a certificate signed by the steamship company before the British Consul at the foreign port of shipment that the goods have passed through in bond.

The Governor visits St. Vincent.

Sir G. B. Haddon Smith was expected to arrive in the Island from St. Lucia, His Excellency's visit being to discuss with a local Advisory Board his proposals for amending the constitution of the Legislative Council in accordance with the recommendations in Mr. Wood's Report. The Administrator was due to return to the Colony from leave on September 22nd.

Foot-and-Mouth Disease in Jamaica.

Owing to the outbreak of foot-and-mouth disease in the Western Parishes, the Acting Governor has telegraphed the Secretary of State asking for an authority on cattle epidemics to be sent out. The situation is regarded as serious, the United States Government having already prohibited the importation of Jamaican hides. In the case of Canada, hides may still be exported, subject to disinfection by ap-



A Fire at San Fernando.

All that remained of the Imperial Store, after the conflagration of Sept. 20. From a photograph by Mr. George Adhar.

proved processes, such disinfection being certified by an official of the Department.—The *Gleaner* of September 22nd comments adversely on Jamaica's inadequate display at the recent Toronto Exhibition, the amount subscribed for this purpose being limited to £500.—Sir John Simon delivered an address to the Jamaica Law Debating Society on September 19th, the Hon. F. C. Wells Durrant, K.C., presiding.

Tobago's Mail Service.

The mail service with Trinidad has had to be performed recently by means of a sloop, owing to the necessity of R.M.S. *Belize* being withdrawn for a short period for general cleaning and overhauling.—Mr. Robert S. Reid, writing on September 24th, reports a fortnight of sultry weather with some gusty showers, but no damage done, the Island seeming to have escaped the storm that passed further north.—The cacao crop is ripening well, and pickings will soon increase. Growers of coconuts are almost at a loss what to do with their produce now that the local price of copra has dropped to 3d. per lb., which is below cost of production.

Serious Fires in Trinidad

Damage estimated at \$500,000 was caused by a fire on the night of September 20th, when important busi-

ness buildings in High Street, San Fernando, were destroyed. The establishments affected were the provision store of Mr. Samlalsingh, where the outbreak started, the Imperial Store, Messrs. Huggins & Co.'s Provision Store (one of the finest structures in the town), and Sinanan's provision business. Another destructive fire, the damage by which is also estimated at half a million dollars, devastated Sangre Grande on the following night. The work of fighting the outbreak was much handicapped by the absence of water and fire implements, and it was fortunate that the whole town was not wiped out. The chief sufferers were Messrs. Marlay & Co. The buildings destroyed included the local branch of the Royal Bank of Canada.—The *Trinidad Guardian* of September 19th urges the necessity for the creation of a Public Trustee, and thinks that the coming retirement of the Crown Solicitor and Administrator-General would provide a suitable opportunity for adding such duties to that office.—Following upon the decision of the Board of Management of the Royal Victoria Institute in the Council Chambers of the Town Hall on Tuesday, 5th instant, to rebuild that institution, the work was begun yesterday morning. The contract has been given to Messrs. Geo. F. Huggins & Co., Ltd.—The technical classes which used to be conducted at the Victoria Institute are to be restarted after a lapse of three years under the direction of Captain Catteridge, Principal of the Government Intermediate School.—H.M.S. *Hood*, Britain's largest battle-cruiser, and H.M.S. *Repulse* arrived at Port of Spain on September 30th on their homeward voyage from Rio de Janeiro. Elaborate social arrangements were made for the ships' ten-days' stay.—A Bill has been introduced into the Legislative Council (the Expulsion of Undesirables Ordinance) with the object of enabling the Governor to make expulsion orders requiring any person other than British subjects domiciled in the Colony or resident there for the preceding two years, to leave, and also to prohibit any person from landing.

The Subscriptions of Candidates elected to The West India Committee during the last three months of the current year will, when paid, not be renewable until January 1st, 1924.

OBITUARY.

MR. EMILE SAPENNE DELISLE.

The Circular regrets to learn that Mr. Emile Sapenne Delisle died in St. Kitts, on Sept. 9th.

Like his brother, Mr. G. S. Delisle, with whom he was associated in business for thirty-five years, Mr. Emile Delisle died with painful suddenness as far as one can learn from cablegrams received. The most prominent merchant in St. Kitts, Mr. Delisle was a tower of strength to the community; but of a modest disposition he never embarked on a public career, being content to do good by stealth. He was one of the founders of the St. Kitts Club in 1894. Like his brother, he was a staunch Roman Catholic. One of his closest friends writes: I made his acquaintance about 37 years ago, when he was a man settled in life. But I can tell you this—if ever there was a man on this earth worthy of being described as a very perfect gentleman, Mr. Delisle would be that man. He was the very soul of honour and kindness, and of every other attribute which makes up the worthy man. He was loved and respected by every one who knew him; and his death will make a void in the life of St. Kitts, which it will take a long time to fill.

TRADE OF ST. VINCENT.

Last Year's Gloomy Conditions.

Mr. W. C. Hutchinson gives a gloomy account of St. Vincent in his Report on that colony for 1921. He states that the general depression in the colony owing to the unremunerative prices for cotton, syrup and arrowroot, which obtained in 1920, continued throughout the year. The high prices for foodstuffs and clothing were also maintained, and this, added to the hurricane which visited the island on the 8th September, 1921, and did extensive damage to property and widespread damage to staple and native food crops, entailed considerable hardship on the populace. The hurricane which struck the island destroyed 729 and damaged 1,392 dwelling-houses in St. Vincent and the Grenadines. Many churches and schools were also materially damaged and the entire telephone system collapsed. Nine vessels were wrecked, with the loss of many lives. Measures of relief were immediately instituted; free issues of food and grants of money, lumber and materials, to the value of £3,295, were made to those who suffered by the storm.

As regards the colony's financial position, there was a surplus on December 31st, 1921, of £9,598, including a sum of £1,042, the unspent balance of the Windward Highway Loan. The total revenue and expenditure from all sources in the last three financial periods were:—

	Revenue	Expenditure
	£	£
1919 (April to December)	34,111	35,361
1920	58,221	52,302
1921	53,806	56,221

Towards the revenue, income tax furnished the sum of £5,193 last year, as compared with £2,630 in 1920 and £849 in 1919.

The total values of imports and exports in 1920 and 1921 were:—

Year	Imports	Exports	Total Trade
	£	£	£
1920	257,230	209,850	556,860
1921	144,343	137,718	282,261

The percentage of imported goods contributed by various countries of origin is indicated by the following table:—

	1920.	1921.
United Kingdom	32.46	27.02
United States of America	28.27	25.96
Canada	27.59	25.51
All other countries	11.66	21.60

Dealing with St. Vincent's agricultural industries, Mr. Hutchinson states that the Government Cotton Ginners and Granary continued to buy seed cotton and corn (maize) on profit-sharing terms. There was considerable competition with private dealers for the purchase of Sea Island cotton in 1921, and no Marie Galante was purchased by the factory, the bulk of it having been sold to dealers in Carriacou, Grenada. The following quantities were dealt with in the seasons 1919-20 and 1920-21:—

	1919-20.	1920-21.
	lb.	lb.
Sea-Island seed cotton	332,773	74,236
Marie Galante	288,504	—

DEATHS.

CONDALL.—At Alsboby, Shimfield, near Reading, Berks, on the 3th instant, Mrs. C. E. Condell, mother of Mr. C. F. Condell, late Commissioner of Montserrat, B.W.I., aged 85 years. R.I.P.

CONNELL.—On September 20th, 1922, at Crab Tree Avenue, Ernest B. Connell, barrister-at-law of the Middle Temple, late of Trinidad, British West Indies.

PERSONAL NOTES.

MR. ROBERT ANDERSON, Hon. Correspondent to The West India Committee in Montreal, has been a welcome visitor to London, where he and Mrs. Anderson are spending a few weeks.

MR. ALICK HAMLYN, Hon. Correspondent to The West India Committee in Trinidad, who has been spending the summer in England, returned to Port of Spain in the *Intaba* on October 17th. Before leaving London he visited the new Committee rooms, and appeared to be greatly pleased with the accommodation now provided for members.

THE HON. H. B. WALCOTT, C.M.G., Collector of Customs for Trinidad and Tobago, who, as his friends will be sorry to learn, has recently been in the doctor's hands, returns to Port of Spain in the *Camito* on November 4th. He will be accompanied by his youngest son, who has also been on the sick-list, and Mrs. Walcott hopes to follow them later in the year.

MR. ERNEST CONNELL, whose death is announced in this CIRCULAR, worked for some years in Trinidad under his uncle, Mr. James H. Connell, at Cedrus Estate, of which he was afterwards Manager. He returned to England in about 1909, and was called to the Bar. In 1915 he came over with the Trinidad contingent and remained in England after the war.

COMMANDER W. DASENT, R.N., only surviving son of the late Sir John Dasent, who used to visit St. Vincent every winter, leaves Avonmouth in the s.s. *Camito* for Trinidad en route to Kingston with Lady Dasent, the present owner of Montrose House, overlooking Kingstown Bay, on November 4th. Commander Dasent, who served in H.M.S. *Indomitable* during the war, is revisiting St. Vincent after an absence of fourteen years.

MR. CRUM EWING, of Strathleven, and Mr. Thomas Prentice, of Messrs. Prentice, Service & Hendersons, have been re-elected chairman and vice-chairman respectively of the West India Association of Glasgow. The retiring directors, Mr. Humphry Crum Ewing, Sir Norman Lamont, Bart., Mr. William Wilson, and Mr. David A. Blair were re-elected, while Mr. T. W. Donald, of Messrs. McGrigor, Donald & Co., was re-appointed hon. treasurer, and Mr. R. I. Muir hon. secretary.

MR. DUDLEY SLINGER, son of the late Major David C. Slinger, of St. George's, Grenada, and of Mrs. Slinger, who is taking up music professionally, gave his first public pianoforte recital at the Wigmore Hall, Wigmore Street, on Monday, October 16th. The programme included selections from Beethoven, Chopin, Bach, Paradies and Daquin, and, judging from the way in which Mr. Slinger rendered Beethoven's well-known Sonata in E flat, Op. 31, and Chopin's Nocturne in F sharp major,

it is not too much to say that he has a successful future before him in the musical world.

MR. PAUL CRESSALL, who returned from British Guiana on July 11th, has, the CIRCULAR regrets to learn, been in the doctor's hands ever since. After forty-five years' residence in the colony, during the whole of which period he was in the service of Messrs. Sandbach, Parker & Co., latterly as their chief representative—in which capacity he succeeded the late Mr. Guy Wyatt—he has now come over to live in England. In Georgetown he filled many important positions in the realm of business and sport, and it is not too much to say that his place in the community will not be easy to fill.

A DINNER is to be given shortly in London in honour of Sir Henry Hesketh Bell, K.C.M.G., whose term of service as Governor of Mauritius has been extended. Among those who are giving their support to this function are Sir George Le Hunte and Mr. Thomas du Buisson. It will be recalled that a considerable part of Sir Hesketh's Colonial service has been spent in the West Indies, where he received his first appointments in 1888, becoming subsequently Receiver-General of the Bahamas in 1894, and Administrator of Dominica from 1899-1906, at a time when the development of the interior of that island and the attraction of settlers were receiving considerable attention. It was whilst administering the Government of Dominica that Sir Hesketh devised a system of insurance against hurricanes, which was adopted by Lloyd's, and has since been widely used both in the West Indies and in the East.

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
West Indies	... Dover	... <i>Crynassen</i>	... Oct. 28
Jamaica	... Liverpool	... <i>Governor</i>	... " 28
Jamaica	... Bristol	... <i>Patuca</i>	... " 31
W'ds, B'has, & Jamaica	... London	... <i>Teviot</i>	... Nov. 3
W'ds, T'dad & Jamaica	... Bristol	... <i>Camito</i>	... " 4
B'dos & T'dad	... Liverpool	... <i>Dukarian</i>	... " 1
B'da, B'has, & Jamaica	... Glasgow	... <i>Spectator</i>	... " 11
West Indies	... Dover	... <i>Oranje Nassau</i>	... " 11
West Indies	... Plymouth	... <i>Peron</i>	... " 13
Demerara & Trinidad	... Amsterdam	... <i>Prins der Nederlanden</i>	... Nov. 16
W'ds, B'has, Ja'ca & B. Honduras	Montreal	... <i>Canadian Forester</i>	... 16
West Indies	... New York	... <i>Parima</i>	... " 17
Jamaica	... New York	... <i>Santa Marta</i>	... " 18
Barbados	... New York	... <i>Vestris</i>	... " 18
B'dos, T'dad & Demerara	... New York	... <i>Maraval</i>	... " 21
Jamaica	... New York	... <i>Carillo</i>	... " 22
West Indies	... Halifax	... <i>Chaudiere</i>	... " 24
Bermuda	... New York	... <i>Port. St. George</i>	... Dec. 2
B'da, B'has, Ja'ca & B. H'das	... Halifax	... <i>Canadian Fisher</i>	... 7

SOME COMPANY NOTES.

Royal Mail Steam Packet Company.

The Court of Directors have resolved to pay an interim dividend of 2 per cent. (less income tax) on the Ordinary stock.

The Colonial Bank.

Presiding at the half-yearly meeting of this corporation, on October 12th, Mr. Charles F. Wood, the chairman, referred to the new premises of the Bank at Georgetown, which had been completed and occupied last June. Both this and the new building at Lagos, the completion of which finished their building programme for the present, were a credit to the Bank, and bore testimony to their faith in the future of the two great Colonies in which they were situated.

With regard to the suggestion that a Trade Commissioner should be appointed in London for the West Indies, Mr. Wood said:—

"While I am always anxious to see everything done to increase publicity of the West Indies, the duties of a Trade Commissioner are, in fact, already ably performed by The West India Committee, which was established about the year 1760, and, like the Colonial Bank, was incorporated by Royal Charter. It issues an authoritative journal on West Indian affairs. Its chairman is our own director, Mr. Robert Rutherford, to whom we are so much indebted for guidance on West Indian matters. I may, perhaps, add here that Mr. Rutherford has been invited by the Secretary of State for the Colonies to preside over a West Indian Group Committee, which is being formed in connection with the British Empire Exhibition of 1924, and the question of the participation of the West Indies—a well deserved compliment and an admirable appointment." (Hear, hear.)

In the absence, through illness, of Mr. Hyslop Bell, joint general manager, some notes on the West Indian situation prepared by him as the result of his recent visit to those Colonies were read by his colleague, Mr. Charles Hewett. In this memorandum, Mr. Bell said:—

"I visited the principal West Indian Islands and British Guiana in the spring of this year. In Barbados present conditions are wonderfully satisfactory considering the period of depression through which this island, in common with all others, has passed. I was very much impressed with the high prestige which the Colonial Bank enjoys in all these islands, and nowhere was this more in evidence than in Barbados. In Trinidad one was struck with the amount of development going on in the various oilfields, and it is interesting to note that during 1921 the greatest production of crude oil in the history of the Colony was obtained. During this year also 84 wells were drilled, of which exactly half were successful in striking oil. More recently, however, difficulties of finance have affected certain areas.

"In British Guiana trade has been very dull through the depression in sugar and rice, but in the case of the former the position is improving. The cattle industry is also making progress. The diamond industry has been the one bright spot, and a large number of good stones is being marketed, the export for the past year reaching the respectable figure of £329,000. The Government Loan of £1,000,000, negotiations concerning which were in progress when I was in Demerara, has since been successfully floated on the London market, and stands to-day at a substantial premium. This Bank was appointed the agents for the service of the loan. The possibilities of British Guiana are enormous; it is a really valuable possession of the Empire. Its principal problem is population, and one hopes that it will be found possible to arrange for the import of labour, and

that some scheme of attracting settlers by giving them grants of land will be devised. In Jamaica, trade has been fairly satisfactory, and there are signs that the worst of the depression may be over. Good prices have been obtained for bananas, for which there is a constant demand, and the prospects of the 1923 crop are said to be good. The peasants of Jamaica appear to be better off than ever they have been.

"The sugar position in general appears to be distinctly better, and the well-managed or better situated estates were enabled to make quite a satisfactory profit last season. It is encouraging to see that consumption has increased in the United Kingdom, the U.S.A., and also in France, Germany, Holland and other countries on the Continent. Canada is taking increasing quantities of West Indian sugar, and judging by her total imports there is still room for doubling her present imports of this sugar."

A vote of thanks, on the motion of Mr. H. Hamel Smith, to the court and staffs of the Bank having been passed unanimously, the chairman replied and the proceedings terminated.

Kern River Oilfields of California, Ltd.

In their report for the year ending May 31st last, the directors of the Kern River Oilfields of California, Ltd., state that the development of the properties of the Trinidad company has proceeded without interruption. A tank farm has been constructed, pipe lines laid in connection therewith, and in order to minimise the heavy expenditure for road maintenance a light railway is being constructed, and is near completion. Staff quarters have been erected, and the property is being maintained in good condition. Two wells gave heavy flows of oil during the progress of drilling operations. Whilst oil has been struck in every well, the production after the initial flush has been small; in order, therefore, to obtain an increased and steady output work is being carried on to test the deeper formations. The total production to May 31st last amounted to 66,440 barrels, and the production for the three months ended August 31st amounted to 8,215 barrels. During the year the company's properties in Trinidad were visited by Mr. William Ivey, the chairman, and Mr. H. H. Haldin, K.C.

United British of Trinidad.

The directors of the United British Oilfields of Trinidad, Ltd., in submitting the audited balance-sheet and profit and loss account for the year ended December 31st, 1921, state that after writing off the cost of exhausted wells, preliminary expenses to the amount of £25,389, part of the cost of motor vehicles, and after providing £31,895 on account of general depreciation (including £20,000 instead of £10,000 as in previous years, in respect of the company's fields operations), a profit for the year of £5,337 is brought down. Deducting from this the adverse balance of £2,006 of the previous year, there is left £3,331, which is carried forward subject to income-tax. The sum of £90,000 now stands to the account of depreciation on the company's properties. During 1921 the company obtained the assistance of the fields, of technicians of the Bataafsche Petroleum Maatschappij with a view to the elucidation of drilling and production problems in the light of their experience of similar problems in other fields under their control, but sufficient time has not elapsed up to the date of this report for their advice to take full effect. In the year under review, 11,375 feet were drilled, and total production from all sources amounted to 51,689 tons. While the volume of sales exceeded that of 1920, the lower level of prices resulted in reduced returns. The refinery continued throughout the year to perform satisfactorily all that was required of it.

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. Miami, October 10th:—

Mrs. A. M. Clark	Mr. H. J. Hook	Mrs. E. Lloyd & fam.
Mr. W. Cowper	Mrs. S. M. Jacobsen	Mr. T. L. Lyons
Miss A. M. Hart	Mrs. G. V. Kite	Miss A. M. Parish

Sailings to Jamaica, from Avonmouth, in R.M.S. *Changainola*, October 17th:—

Mr. & Mrs. L. Asbenheim	Mr. W. A. Hedderwick	Mr. & Mrs. E. F. Houston-Barrett
Mr. N. N. Asbenheim	Mrs. M. Hogge	Mr. C. R. Kelph
Mr. H. N. Broeke	Miss K. Howson	Mr. G. V. Roberts
Mr. T. D. H. Bruce	Mr. W. Humphreys	Dr. & Mrs. P. R. Saunders
Mr. W. F. M. Copeland	Mr. & Mrs. E. D. Jones	Miss E. Saunders
Mr. T. L. Cox	Mrs. J. Lawrence	Miss E. M. Sheppard
Mrs. & Miss Crowden	Mr. P. A. Lawrence	Miss M. V. Smith
Mrs. S. Dickson	Mr. E. E. Lewis	Miss B. Steer
Mr. H. E. A. Digby	Capt. J. D. Louis-Smith	Mrs. H. G. W. Taylor
Mr. S. W. Digby	Mrs. M. Manton	Mrs. C. J. Veitch
Mr. & Mrs. H. R. L. Fox	Mr. & Mrs. A. A. McInnes	Mr. L. W. Whitelocke
Miss E. Fox	Mrs. M. Von Moltzahn	Mr. & Mrs. W. J. Wilson & fam.
Mrs. A. Graham	Mr. & Mrs. W. Morrison	Mr. R. E. Wyman
Mr. & Mrs. C. E. Green		Mrs. & Miss Wyndham

Home arrivals from Jamaica, in s.s. *Coronado*, Avonmouth, October 15th:—

Rev. E. Y. Bate	Mrs. A. E. Green	Miss M. Marsden
Miss F. E. Blair	Mr. J. Gavin	Mr. P. H. Norton
Miss M. Boucher	Lt. Col. R. C. Hammond	Mr. & Mrs. Riasons
Capt. & Mrs. Rutlin	Mr. G. Mc N. Hargreaves	Mr. H. K. Ryan
Miss M. de Cardona		Mr. R. R. Beckley
Mr. C. Ellis		Capt. & Mrs. Seaman
Mr. E. M. R. Frazer		

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Jutaba*,

October 17th:—

Mrs. Arbuckle	Mrs. Ball Greene & fam.	Miss Paery
Mr. Hamlyn	Mr. Hamlyn	Lady Kayner
Command. Briggs	Mr. O. T. Henderson	Miss Howland
Mr. James Black	Mr. S. L. Hughes	Mrs. Sampson
Mr. George Black	Mrs. & Miss Kerry	Dr. Seacombe
Rev. Culnan	Mrs. Louelle	Mr. T. Shields
Miss S. de Roisiere	Le.-Col. Lavington	Mrs. Southwell
Mr. R. Farnell	Mrs. & Miss Low	Mrs. Southwell-Bourke
The Misses Ferguson	Mr. & Mrs. Machado	Mr. A. Thomson
Mr. G. E. Geeve	Mrs. Macpherson	Mrs. & Miss Townsend
Mr. & Mrs. George & family	Mrs. J. McBride & fam.	Lord Bishop of Trinidad
Mr. Gilson	Mr. & Mrs. B. Murray	Mr. Vine
Mr. & Mrs. Clendinning	Mr. E. Murray	Mr. T. A. White
Mrs. Grant	Mrs. & Mrs. Newton-Clare & fam.	Dr. & Mrs. Wiltshire

Royal Netherlands West Indian Mail.

Sailings to West Indies from Dover, in s.s. *Van Rensselaer*,

October 14th:—

Mr. H. E. Andrew	Mrs. D. G. M. Hall	Mr. S. Phibie
Miss K. Anbridge	Miss M. A. Hull	Mr. C. A. Raven
Mrs. E. A. Archer	Mr. O. C. Heidenstam	Mr. F. Robinson
Miss A. Ashby	Mr. & Mrs. H. C. B. Hickling	Mr. C. S. Rogers
Mr. & Mrs. Bailey	Miss P. H. Hickling	Dr. & Mrs. Y. O. Simpson
Mr. & Mrs. F. G. Bancroft	Mr. E. Horn	Mr. A. Shields
Miss Bancroft	Mr. A. Houghton	Mr. P. G. K. Smith
Mrs. Beaumont	Mrs. K. N. Hoggart	Miss C. Smith
Mr. H. E. Bradshaw	Mr. M. Hughes	Mrs. Spillmeyer
Mr. G. G. Brown	Mr. H. Hanes	Mr. S. K. Wells
Miss E. L. Brown	Mr. H. Hanes	Mrs. E. M. Whearing
Miss L. H. Bard	Mr. N. Laird	Miss W. J. Whearing
Mr. & Mrs. E. H. Canning	Mrs. Lee	Miss J. Whistaker
Miss G. Canning	Mrs. M. J. Liddle	Mr. & Mrs. J. Wilson
Mr. J. L. C. Clarke	Miss H. Littlepage	Miss Wilson
Miss A. D. Clarke	Mrs. P. J. Locke & fam.	Mr. R. M. Wilson
Mrs. E. Davies	Mr. & Mrs. W. Mackay	Mr. & Mrs. C. E. Vincent
Mr. F. Freeman	Mr. A. J. Marriot	Mr. & Mrs. C. F. Fisher
Miss M. E. Gulsan	Mrs. J. M. H. McLeod	Miss M. E. Yearwood
Mr. G. Gummer	Mr. N. H. McLeod	Miss D. Yearwood
Mr. & Mrs. C. J. M. Hamilton & fam.	Miss G. Nugent	
	Mr. & Mrs. T. W. B. O'Neal	

Home arrivals from West Indies, in s.s. *Oranje Nassau*,

Plymouth, October 17th:—

Miss L. Bedard	Mr. C. M. G. Hoyte	Mr. J. Planchart
Mr. H. Cleghorn	Rev. Father Hunte	Hon. G. C. Spencer
Mr. W. Coghill	Mr. J. Melhuish	Mr. E. T. F. Suddard
Mr. G. Finch	Mr. R. C. Newell	Mr. & Mrs. I. Uchlein

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates, have been kindly supplied to The West India Committee by the respective Governments.

	Anti-gua. To Aug. 31	Bar-bados. To Aug. 31	British Guiana To Aug. 31	British Honduras To Aug. 31	Dominica To Aug. 31	Grenada To Aug. 31	Jamaica To Sept. 16	Montserrat To Aug. 31	St. Lucia To Aug. 31	St. Kitts Nevis To July 31	St. Vincent To July 31	Trinidad To Aug. 31
Arrowroot											2,747,855	44,097
Asphalt												3,933
Bulata			299,704	275,288	2,638	8,172,508			3,119			
Bananas												28,732
Bauxite												40,581,245
Bitters					587,328	6,775,552	6,981,772	452	1,246,715			45,788
Cacao												12,184,779
Cassava Starch			1,073,001	2,579,735	145,810	530	70,121,011		59,526	241,115		480
Cocoa-nibs			714,731		511		4,188,800		71,943			212,341
Coffee			129,808	26,518		7,897	1,308,767					44,770
Copra						254,464		302,524				275,607
Cotton, M. Galante	11,250	108,797						288,960	40	222,877		150
Cotton, Sea Island	1,709					631,368				253,386		
Cotton Seed			89,589									
Diamonds							21,306					650
Dyewoods						800	1,548,938					
Ginger			5,477									270,719
Gold						100	943,354		15,914			591
Ground Nuts							9,655	18,781	3,142			
Honey							79,789	460	15,156			
Lime Juice (raw)	1,040						57,782	429				
.. (concd.)							370,606		5,040			
.. oil			3,243				100		262			
Lime (hydrate of)				1,078					11,580			6,801
Logwood			162,690	17,919					4,512			
Lumber				4,288,727		1,175						
Mahogany		57										
Manjak			47,394					2,687	134,382	263,481	66,785	113,601
Molasses	87,949	8433,8 8		2,650	146,000	31,132	328,827	684	244,846		308	111,826
Oranges									3,124			
Essential Oils												37,186,240
Petroleum							7,828,448					
Pimento			14,687,428									4,102
Rice												22,853
Rubber		4,397	354,269	2,991			626,046		361			
Wax			1,275,330		52,640				6,000			
Shingles			56,584				45,483	56	3,791	4,685	81	46,610
Sugar	7,703	31,860										
Timber			55,401		52,726							

PRODUCE MARKETS SUMMARY.

Telephone—
 Mimoria 2200-2201.
 Telegrams—
 "Carib. London."



11, TRINITY SQUARE,
 LONDON, E.C.3.
 Oct. 26th, 1922.

BANK RATE. 8 per cent. as from July 13th.

EXCHANGE. Value of the £ Sterling.

	Oct. 10th	Oct. 24th		Oct. 10th	Oct. 24th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To U.S.A.	18 2	18 4	In Spain ..	1 3 0	1 3 0
.. France	2 5 6	2 8 9	.. Germany	625 0 0	900 0 0
.. Belgium	2 8 10	2 13 3	.. Austria	Nominal	Nominal
.. Italy	4 2 7	4 5 1	.. Holland	18 10	18 9

The intrinsic value of the gold sovereign is £1 is. 10d.

SUGAR. The New York market has been strong, at an advance during the fortnight of 0.25c., the quotation for Cubans loaded and duty paid yesterday being 5.58c., equivalent to 3.75c., c.i.f., or about 3.60c., f.o.b.

Futures closed steady at: December 3.52c., January 3.30c., March 3.18c., May 3.28c.

The Home Market is steady, with a slight hardening of values. Yesterday's values were:—London Granulated, 51/4; American Granulated, 50/- spot; West Indian Crystallised, 42/- to 45/-; White Mauritius, 46/- to 47/- spot; White Java, 47/9 to 48/6 spot. Cuban 96 deg. was quoted nominally at 19/- c.i.f.

Terminal market values were: White, November 21/3, December 21/3, January 21/3; 96 deg. all nominal.

According to the Board of Trade Returns for September, the total imports for the month were 154,561 tons, of which 37,323 tons were entered under the heading of refined, and 107,238 tons as unrefined. Europe provided 8,949 tons of the refined, of which 2,561 tons came from Holland, Java 7,866 tons, and the United States 12,092 tons, the latter a considerable falling off from the amounts of previous supplies. Other non-European countries, it is presumed mainly Canada, contributed 18,414 tons. Of the unrefined, it is noticeable that 192 tons came from Europe, of which 41 tons was credited to Germany. The imports from Cuba were still comparatively small, 22,922 tons, the deficiency being made up by an import of 48,037 tons from Java. Mauritius supplied 3,312 tons and the British West Indies 2,829 tons. British India is credited with 1,007 tons. The month's output by the home refiners was 77,258 tons. The consumption for the month has been 181,565 tons. The imports for the nine months have been 1,467,178 tons, consisting of 401,027 tons of refined and 1,066,146 tons of unrefined. Of the 50,314 tons of refined which came from Europe, the bulk, 25,651 tons, was Czecho-Slovakian, a lesser quantity of 19,394 tons coming from Holland. Rightly or wrongly, 637 tons is ascribed to Germany. The total amount of Java direct consumption sugar received for the nine months has been 8,318 tons. No less than 259,880 tons of refined sugar have come from the United States during this period. Out of the 1,066,146 tons of unrefined, 618,672 tons have come from Cuba, 106,458 tons from Mauritius, 92,083 tons from the British West Indies, 70,616 tons from Brazil, and 61,795 tons from Peru.

The consumption of the United Kingdom for the nine months has been 1,208,120 tons, as against 1,047,557 tons for the same period last year. It has been made up of 371,710 tons of imported refined, 122,169 tons of imported "unrefined," and 714,241 tons of home refined. It is worthy of note that the Java white sugar is included in "refined," and the Mauritius white sugar classified as "unrefined." The stocks on hand on September 30th amounted to 278,400 tons, consisting of 51,300 tons of home refined, 36,100 tons of foreign refined, and 190,750 tons of unrefined. These figures compared with stocks on hand on August 31st of 296,650 tons, consisting of 48,150 tons of home refined, 49,350 tons of foreign refined, and 208,150 tons unrefined.

RUM remains dull and unchanged, with values nominal.

The imports for the month were 32,406 proof gallons, and the quantity drawn for consumption 91,773 galls. These figures bring the total imports for the nine months to 1,429,175 galls., with a consumption of 973,326 galls. The consumption for the first nine months of last year was 1,259,872 proof gallons. The exports for the month were 11,707 galls., making 882,696 galls. for the nine months as against 133,702 galls. for the first nine months of last year.

The stocks on hand on September 30th were 10,984,000 galls., as against 11,087,000 galls. on August 31st.

CACAO remains very quiet. Good ordinary plantation to line Trinidad is quoted at 65/- to 70/-, with small sales at the lower figure. Fine Grenada is selling slowly at 53/-. Export remains flat. The imports of cacao for the month amounted to 24,003 cwts., bringing those for the nine months up to 1,028,219 cwts. The British West India Islands supplied 5,772 cwts. for the month, and 119,259 cwts. for the nine months. The month's exports were 48,767 cwts., and 297,919 cwts. for the nine months, the latter comparing with 362,938 cwts. for the first nine months of last year. The stocks on hand on September 30th amounted to 689,000 cwts., as against 893,000 cwts. on August 31st.

ARROWROOT is quietly steady at 5d. to 5½d. for fair to good manufacturing, and 6d. to 7d. for grocery.

BALATA remains quiet, with West Indian sheet valued at 3/2½ spot and forward at 2/10½ c.i.f.

BAY OIL. A small sale of high-testing oil has been made at 9/6 per lb.

COFFEE. At last week's auctions offerings were small and the demand slow. No Jamaica has been offered recently, and the quotation for good to fine ordinary is nominally unchanged at 65/- to 70/-. The market to-day is quiet, with export business dull.

COPRA is steady, with West Indian quoted at 22½ 15s., c.i.f. London or Rotterdam.

COTTON. West Indian Sea Island is unchanged at: medium 22d., fine 29d., and extra fine 35d.

HONEY. At auctions held on the 12th inst., 880 packages of all kinds were offered and met with a moderate demand. Jamaica sold at 32/6 to 52/6 for set dark to good set pale; and Cuban at 32/6 to 42/6 for liquid darkish to palish set, and 61/- to 62/- for very fine white set.

LIME PRODUCTS. Lime Oil. Handpressed is very quiet, with most sellers asking 9/-, but no business is reported. Distilled is firm, with some business at 2/- for good. Lime Juice. Small sales of Raw 4-qt Dominica have been made at 2/3. Concentrated is slightly dearer, with a good business at 21s. 15s.

LOGWOOD. Business remains slow. The nominal quotation is about 28 per ton.

ORANGE OIL. Sweet is quiet, with sellers on the spot at 9/6 per lb. Bitter is unchanged.

PETROLEUM. The production of the United British Oilfields of Trinidad for the past five years was as follows:

Tons	1917	1918	1919	1920	1921
...	52,671	82,671	10,892	49,800	51,689

RUBBER has been an active market on the fortnight, and prices have advanced 3d. per lb. all round. Crepe and sheet is selling at 11½d.-11½d. spot.

SPICES. On the spot Pimento is steady and firmly held, with fair quoted at 2½d. There are sellers on c.i.f. terms at 11s. per cwt. The market for Jamaica Ginger is extremely slow, and the tendency of prices is a declining one. Mace is unchanged. Fair red is quoted at 1/8; broken to fair yellow 1/6 to 1/9; and fine pale yellow 2/- Nutmegs are steady, with sound quality quoted at 6d. to 9½d.

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. The minimum subscription is £1 Is., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

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CARIB, LONDON.

November 1th, 1922

EMPIRE EXHIBITION AND COLONIAL PRODUCE

DURING the past few weeks there has been much discussion relative to the materials to be used in the erection of the buildings for the British Empire Exhibition, and the produce to be used by the caterers. This has arisen out of a letter which Mr. DONALD, till then a member of the Management Committee, wrote to the Press, protesting against his colleagues having failed to lay it down that only Empire materials and produce should be used in connection with the Exhibition. On the face of it, Mr. DONALD's protest may seem reasonable enough; but we think that the proper course for him to have adopted would have been to lay the matter before the Executive Council of the Exhibition rather than to stab his colleagues

in the back, and give rise to a controversy which would have been no controversy at all if the matter had been dealt with tactfully. Following the publication of his letter, a conference was held between the Agents-General, the Chairmen of the various Group Committees, and the Committee of Management, and at a subsequent meeting of the Executive Council it was decided to appoint a Committee consisting of three representatives of the Executive Council, two members nominated by the High Commissioners, and one representing the Colonies and Protectorates, to thresh out the whole subject, it being laid down definitely that the views of the Executive Council are that only Empire materials and produce should be used in connection with the Exhibition. LORD SOUTHBOROUGH, who presided at the meeting of the Executive Council, pointed out, however, that though every effort had been made to find contractors who would pledge themselves only to use Empire produce, the Exhibition authorities had so far failed to discover one, since no firm would bind itself to exclude foreign produce entirely from its Bills of Fare, for many and very obvious reasons. Meanwhile it is satisfactory to learn that no catering contract has yet been signed, and it remains to be seen whether the Agents-General, whose views are very pronounced in the matter, will be successful in devising arrangements which will overcome the present difficulty; and there can be no mistaking the strength of feeling in the Dominions and Colonies on this subject, as has been evinced by many cablegrams which have appeared in the Press. For ourselves, we appreciate the difficulties presented by these exhibitions, and realise that it will not be possible to carry out to the letter any very hard and fast rule as to the use of Empire materials; for whatever may be said to the contrary, we know that there are many Exhibition-goers who will not be induced to patronise Empire produce in the long run by having it forced down their throats on one occasion. They require coaxing, and we contend that the proper way to coax them is not by compelling them to drink Australian champagne, for example, instead of the produce of France, but to induce them gradually to do so by advertisement, and by showing them the advantages which it offers. At the same time, West Indians, for example, would regard it as an outrage if the caterers were to use foreign sugar in preference to British, where the latter can be obtained. There is, however, one matter to which we attach even greater importance than that of catering, and that is the question of the rights and privileges of exhibitors. In many exhibitions in the past there has been much unpleasantness through exhibitors being precluded from selling or distributing samples of their goods owing to restrictive clauses inserted

in the agreement with contractors. This, we consider, is not merely prejudicial, but positively disastrous from the exhibitors' point of view. It is manifestly an advantage where visitors can take away with them from an Exhibition samples of produce, such, for example, as tobacco, cigars, sugar, cocoa, arrowroot, etc., which they can taste at their leisure in their own homes and compare with the foreign article. It is, to our mind, no earthly good to show rows upon rows of bottles of preserves, pickles, sauces, spirits, etc., if visitors do not have an opportunity of handling them or tasting them. A box of cigars can convey nothing whatever to a visitor to an Exhibition, who would be most unwise to purchase one unless he could have an opportunity of handling or smoking one of them; and this applies, *mutatis mutandis*, to the hundred-and-one exhibits which are shown at Exhibitions of the kind in view. In the circumstances we rejoice to learn that no catering contract has yet been signed, and we may feel sure that intending exhibitors in the West Indies will most strongly endorse a letter which THE WEST INDIA COMMITTEE have addressed to the Manager of the Exhibition for the consideration of the Sub-Committee dealing with the matter, emphasising this point of view.

CANADIAN REFINED AND PREFERENCE.

WE note that it has been suggested in the West Indies that foreign sugar refined in Canada is being admitted to the United Kingdom at the British preferential rate of duty. Thus, MR. H. B. G. AUSTIN, speaking at a meeting of the British Guiana Chamber of Commerce, is reported to have said that at the last meeting of the Barbados Chamber it was brought to the notice of the Council that the Canadian refiners had been buying foreign (raw) sugars, refining them in bond and sending them over to the United Kingdom, where they were being entered under the preferential rate of duty. He added that he was not in a position to state that this was a fact, but his Council had decided to write to the Chamber in British Guiana, and also to that in Trinidad, in respect of the matter.

Rumours similar to those referred to by MR. AUSTIN have for some little time been engaging the attention of The West India Committee, who have been in communication with the Board of Customs regarding the operation of the regulations in respect of Imperial Preference. In this connection we should point out that sugar refined within the Empire is admissible to Imperial Preference only in respect of such proportion of it as is shown to have been produced from raw sugar within the Empire. Moreover, the refiner is required to specify this proportion in the certificate of origin for each consignment. That these regulations are being strictly enforced by the Commissioners of Customs goes without saying. Apart from that, such figures as are available for a comparison between the proportion of sugar supply of Canada which is drawn from Empire sources (including Canadian beet), and the proportion of Canadian refined sugar imported into this country which is admitted to preference,

do not appear to suggest that Canadian refined sugar is obtaining preference to a greater extent than is warranted by the proportion of Empire sugar imported into or grown in Canada. Taking the calendar year 1921, it will be found that the quantity of Canadian refined sugar imported into the United Kingdom was 662,800 cwt., and of this 236,802 cwt. were the subject of claims for delivery at the preferential rates of duty. These figures certainly do not point to any contravention of the Customs regulations, and from enquiries that we have made we are satisfied that the Board of Customs, as is its wont, is as keenly on the look-out for any attempt to transgress its regulations as it has ever been.

THE WEST INDIA COMMITTEE.

At a meeting of the Executive on October 26th, the following candidates (8) were admitted to membership of The West India Committee:—

Names.	Proposers and Secondors.
Mr. William Abbott, F.C.A. (London).	{ Mr. Gerald Otley Case. { Mr. G. R. Garnett. { Mr. M. Howard Marsh. { Mr. Claude T. Berthon. { Mr. A. Hamilton Roberts. { Mr. J. W. Caracciolo. { Mrs. Hayes. { The Right Rev. The Bishop of Trinidad.
Mr. Thomas J. Steel (London).	
Mr. W. St. Clair Ashby (Trinidad).	
The Rev. R. A. Hendy (Country).	
Mr. D. C. Voz, J.P. (Jamaica).	
Mr. R. A. Nugent Gordon (Jamaica).	
Mr. H. M. Shepton (Malay States).	
Mr. J. H. Loughrey (Africa).	
	{ Mr. W. Fawcett, B.Sc. { Mr. E. A. de Pass. { Mr. W. Gillespie. { Mr. W. Fawcett, B.Sc. { Mr. Mewburn Garnett. { Mr. C. A. Campbell. { Mr. James Edward Carlin. { Mr. C. A. Campbell.

EMPIRE FRUIT TRADE.

In view of the projected development of West Indian trade in fruit with the United Kingdom, the utterances of Sir Henry Barwell, the Premier of New South Wales, on the subject of the Australian fruit trade with this country are of great value.

Under the caption, "A Damning Indictment of Australian Fruit," *Nicko's*, the Australian fruit journal, reports a speech made by Sir Henry at a luncheon given him in Adelaide on his return from a recent visit to England, in the course of which he quoted what English dealers had said to him as to the manner in which the trade was conducted. The consensus of opinion among these was that the market in the United Kingdom for Australian fruit was "practically unlimited," but that the confidence of both buyers and consumers had been shaken by the bad methods of grading and packing employed, which were quite inferior to those of the Californian and South African fruit trade.

The manager of the largest concern in the fruit trade in London said that Australian growers had done everything to kill the confidence inspired by sentiment, and his advice to them was to start afresh, imitate the methods of Australia and South Africa, and, when the whole trade was placed on a proper footing, and to adopt a special trade mark-

SOME NOTES OF INTEREST.

"Cow dat b'long to butcher, ueber say him berry well."

THE West Indian Currency Committee reassembled on October 30th after the vacation, and it is understood that an interim report is now receiving consideration.

MR. F. EVANS, who has been in London in connection with the sale of ex-enemy properties in the Cameroons, returned to Victoria, Cameroons, on November 1st.

A FORTY per cent. reduction in the freight rates on iron and steel products is announced by the "Conference" Lines operating between New York and West Indian ports.

THE royalty payable on precious stones found in British Guiana is fixed at 50 cents per carat, and the maximum area of claims has been restricted to 1,500 feet in length by 800 feet in breadth.

THE Tanganyika Territory, the British Sphere of the Cameroons, and the British Sphere of Togoland, will be included as from November 1st in the definition of the British Empire for the purposes of Imperial Preference.

THE *Workman*, the organ of West Indians in Panama, complains in its issue of September 30th that although there is a great deal of unemployment on the Isthmus, recent appeals for labour from the United Fruit Company and other organisations there have been almost ignored.

A RECENT shipment of coffee from Cartagena arrived at Barcelona reduced to powder by a weevil, the infection being tracked back to two warehouses in the former port. H.M. Minister at Bogota, who reports the above occurrence, states that there is thought to be little risk of the infection spreading.

THE Royal Netherlands West India Mail has issued an attractive pamphlet regarding the winter cruises to Barbados, Trinidad, the Spanish Main, and Port Limon, which they are arranging for the winter. The round trip fares are £100 and £90, where passengers stop over at one of the ports of call.

THE *Indian Trade Journal* states that the cultivation of the sugar cane is rapidly extending in Burmah. New varieties of canes have been obtained from India, and the local Department of Agriculture is also experimenting with new kinds. Up to now, only jaggery on a small scale has been manufactured.

ACCORDING to a recent report by the United States Department of Commerce, there were in the United States in 1921, 21 refineries dealing with imported cane sugar, as against 20 in 1919. The combined output, which was 3,784,056 short tons in

1921, was, approximately, 65 per cent. of the maximum capacity.

ON November 1st, the eighth anniversary of the action of Coronel, a laurel wreath was laid on *Good Hope's* locker, the only remaining relic of Admiral Sir Christopher Cradock's ship, which was left behind at St. Lucia and deposited in the Imperial War Museum by the Hon. Gideon Murray. It will be recalled that a number of St. Lucians went down in the flagship.

SOLICITOR, cross-examining witness in a case (as reported in the *Barbados Advocate*) before a Bridgetown magistrate on September 7th:—"You were sprung?"

Magistrate: "What that word means?"

Solicitor: "Sprung means riled. We sometimes use Barbadian English here, although we know the other English."

IN one square mile of jungle near Kartabo, British Guiana, 750 species of vertebrate animals have been identified by Professor W. Beebe, this constituting a larger number than has ever been known to occur in any area of equal size in the world. After seven months' intensive research work in this district, Professor Beebe has returned again to New York, having had, as he reports, the best season's results he has yet experienced.

CANADA bids fair to oust United Kingdom cement manufacturers from the Jamaica market. As the result of an aggressive sales campaign, one Canadian concern is reported to have sold more cement in the Colony in the last five months than was shipped there from the United Kingdom during the whole of 1921 (11,500 barrels of 400 lbs.). The total amount of cement used in Jamaica is in the neighbourhood of 20,000 barrels annually.

THE sugar-beet crop of the Serb-Croat-Slovene kingdom, according to recent reports which have reached the Board of Trade Journal, although a very fair one, will not be quite so good as had been anticipated. The September rains have had the effect, it is said, of reducing the sugar-content of the roots. It is estimated that the production of sugar, which this year has been considerably increased, will amount to 3,000 wagons (80,000 tons).

DURING the first six months of the present year a total of 222,567 bags (of 60 kilogs.) of cocoa was shipped from the port of Bahia. H.M. Consul in the Brazilian port states that New York and other United States ports received nearly half, namely, 107,067 bags, Hamburg coming second with 52,520 bags, and Buenos Aires third with 19,019 bags. Amsterdam and Rotterdam received 10,214 bags, and Havre, Marseilles, and Bordeaux 9,804 bags. Liverpool and London together received 1,415 bags. The balance went principally to Scandinavia, Belgium, and Uruguay.

THE tourist season promises to be the best that the West Indies have enjoyed since the war. There

are once more ample facilities for reaching the Caribbean from the United Kingdom and among many enquirers for information from The West India Committee, who will be patronising the islands, are Lord Glanusk, C.B.E., C.B., D.S.O., and Colonel H. A. Barclay, C.V.O., T.D., who have sailed to Jamaica, and Lord Forteviot, who hopes to leave for that island later in the year, while Mr. Stephen McKenna, the brilliant young novelist, is making the Bahamas his objective. It is evident that the West Indies are regaining the popularity which they enjoyed before the war as a winter tourist resort.

* * *

LAST Saturday was the 220th anniversary of the death of the gallant Benbow, one of England's greatest admirals. As has been often related (for example in "West Indian Tales of Old"), Benbow fell in with a French squadron on August 17th, 1702, when through the treachery of his own captains he was left to maintain a running fight with only two ships against the enemy's seven. For four days he kept up the unequal struggle, and when shot in the face, arm and leg, ordered his hammock to be slung on the quarterdeck, whence he still directed the fight until his ships won free. He reached Jamaica, but succumbed to his wounds on November 4th, and his grave is still pointed out in the chancel of the Parish Church at Kingston.

* * *

The death of Admiral Sir Algernon de Horsey, which occurred on October 21st, at the advanced age of 96, removes one more of the few survivors among those who took a prominent part in events following the Morant Bay Rebellion in Jamaica, in 1865. In that year he was senior naval officer on the station, and captain of the *Wolverine*, which hastened to the scene of the outbreak and assisted in controlling and suppressing the rebellion. Before that he had been flag lieutenant to Sir George P. Seymour, the Commander-in-Chief on the North American and West Indies Station, in 1851. After promotion, Captain de Horsey served the greater part of the eighteen years on the West Indies station. While in charge of the *Brisk* he captured, after a hard chase, a celebrated Spanish slaver, the *Manuela*, of 702 tons, with 846 slaves on board.

* * *

SPEAKING at the annual meeting of the Jamaica Church Aid Association, at Church House, Westminster, on October 19th, the Bishop of Jamaica said that there had been a deep sense of dissatisfaction in the minds of many of the Church people in Jamaica with regard to the spiritual, moral, and social evils which now existed in the Colony. He did not say that they were getting worse, but he could not dare to say that they were getting better. His Lordship paid a tribute to Canon Swaby, a clergyman of Jamaica, who after deciding to settle in this country had offered his services voluntarily to the Bishop, and since April had been engaged as Canon Missioner in going from parish to parish throughout the diocese. The Venerable Arch-deacon Simms, who also spoke, referred to the good

work in the matter of education that was being carried on in the Island.

* * *

It can safely be assumed that readers of the CIRCULAR are much interested in the affairs of the West Indies, Guiana, and Honduras, and that they study its pages for the express purpose of keeping in touch, and increasing their knowledge of those Colonies and their industries. In this connection the following publications (all of which are obtainable at The West India Committee Rooms, 14, Trinity Square, London, E.C.) should be of interest to them.

"The Manufacture of Cane Sugar," by Jones and Seard; 26/-.

"The Banana: Its Cultivation, Distribution, and Commercial Uses," by William Rawcett; 16/-.

"Cacao: A Manual on the Cultivation and Curing of Cacao," by J. Hinchley Hart; 8/-.

"The Cane Sugar Factory," by F. I. Seard; 5/-.

"Historic Jamaica," by Frank C. Candall; 8/-.

"A Handbook of St. Kitts-Nevis," by Katherine Burdon; 5/6.

"The Annals of Codrington College," by Canon T. Herbert Bindley, D.D.; 1/3.

These prices include postage.

* * *

AEROMOTORS, in the form of revolving vanes on deck, have been supplied to drive small craft through narrow and shallow canals, and a description of the invention of Monsieur Des Bleds in this direction, with the results of a trial in British Guiana, appeared in THE WEST INDIA COMMITTEE CIRCULAR some years ago. A modification of the system, in which the driving vane wheels are partially in the water, has now been tried by Messrs. William Denny and Bros., the well-known shipbuilders, of Dumbarton, a vessel 100 ft. in length, 23½ ft. in breadth, with a mean draught of 4 ft. 6½ in. and a displacement of 186 tons having been constructed for the purpose. There are two vane wheels at the stern, each having three blades in the form of a segment, the area of gaps between them being nearly equal to that of the vanes. The diameter of the vanes is 11 ft., and the lower part is immersed in the water to an extent which leaves the driving shafts and bosses well clear of it. The vane wheels rotate in opposite directions, so as to equalise the side thrust due to immersion. The results hitherto obtained show that, as compared with ordinary twin screws, a given speed is maintained with 110 shaft horsepower, as compared with 197 for the ordinary propeller. The vanes are driven at 66 revs. per minute by the Diesel oil engines, each of 100 horsepower. The speed attained is nine knots.

FRIED PLANTAINS.—Remove the skins of some very ripe plantains and slice them very thin. Have a pan ready with boiling lard, in which the slices should be fried a rich brown and served hot. If liked, sugar and spice may be sprinkled over them.

West Indian recipes for publication in this column will be welcomed by the Editor.

THE GENERAL ELECTION.

Parliament was dissolved on October 26th, and the General Election is to take place on November 15th. On October 25th it was announced that the King has approved the following Ministerial appointments :—

Lord President of the Council and Deputy Leader of the House of Lords, THE RT. HON. THE MARQUESS OF SALISBURY, K.G., G.C.V.O.

Lord Chancellor, THE RT. HON. VISCOUNT CAYE, K.C., G.C.M.G.

Chancellor of the Exchequer, THE RT. HON. STANLEY BALDWIN, M.P.

Secretary of State for Home Affairs, THE RT. HON. W. C. BRIDGEMAN, M.P.

Secretary of State for Foreign Affairs and Leader of the House of Lords, THE RT. HON. THE MARQUESS CURZON OF KEDLESTON, K.G., G.C.S.I., G.C.L.E.

Secretary of State for the Colonies, THE RT. HON. THE DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O.

Secretary of State for India, THE RT. HON. VISCOUNT PEEL, G.B.E.

Secretary of State for War, THE RT. HON. THE EARL OF DERBY, K.G., G.C.B., G.C.V.O.

First Lord of the Admiralty, THE RT. HON. L. C. M. S. AMERY, M.P.

President of the Board of Trade, SIR PHILIP LLOYD-GREANE, K.B.E., M.C., M.P.

President of the Board of Education, THE HON. E. F. L. WOOD, M.P.

Minister of Health, THE RT. HON. SIR ARTHUR GIFFITH BOSCAWEN, M.P.

Minister of Agriculture and Fisheries, SIR ROBERT A. SANDERS, Bt., M.P.

Secretary for Scotland, THE RT. HON. VISCOUNT NOVAR, G.C.M.G.

Attorney-General, DOUGLAS MCGAREL HOGG, Esq., K.C.

Lord Advocate, THE HON. WILLIAM WATSON, K.C.

The King's approval of the following additional appointments was announced on November 1 :—

Air Ministry, Secretary of State, SIR SAMUEL HOARE, Bt., C.M.G.

Minister of Labour, SIR MONTAGUE BARLOW, K.B.E.

Minister of Pensions, G. C. THYON, Esq.

First Commissioner of Works, SIR JOHN BAIRD, Bt., C.M.G., D.S.O.

Solicitor-General, T. W. H. ISSKIE, Esq., C.B.E., K.C.

Postmaster-General, NEVILLE CHAMBERLAIN, Esq.

Under-Secretary of State for Home Affairs, THE HON. G. F. STANLEY, C.M.G.

Under-Secretary of State for Foreign Affairs, RONALD McNEILL, Esq.

Under-Secretary of State for the Colonies, THE HON. W. OMSBY-GORE.

Under-Secretary of State for War, THE HON. WALTER GUINNESS, D.S.O.

Financial Secretary to the War Office, THE HON. F. S. JACKSON.

Under-Secretary, Air Ministry, THE DUKE OF SETHURST.

Under-Secretary of State for India, EARL WINTERTON.

Financial Secretary to the Admiralty, B. M. KYRES-MONSELL, Esq.

Civil Lord of the Admiralty, THE MARQUESS OF LINLITHGOW.

Parliamentary Secretary, Overseas Trade Department, SIR WILLIAM JOYSSON-HICKS, Bt.

Parliamentary Secretary, Board of Trade, LORD WOLMER.

Parliamentary Secretary, Office of Works and Transport, WILLIAM ASHLEY, Esq.

Parliamentary Secretary, Ministry of Health, EARL OF OSSLOW, O.B.E.

Parliamentary Secretary and Deputy Minister of Fisheries, RT. HON. THE EARL OF ANCASTER.

Parliamentary Secretary to the Treasury, RT. HON. LESLIE O. WILSON, C.M.G., D.S.O.

Lords Commissioners, H. DONALD KING, Esq., C.B.E., D.S.O.; A. BUCKLEY, Esq., D.S.O.

Under-Secretary for Health for Scotland, JAMES KING, Esq.

Controller of the Household, H. BARNSTON, Esq.

Charity Commissioner, GEMMY LOCKER-LAMPSON, Esq.

His Majesty's approval of the following appointments was announced on November 7th :—

Financial Secretary, Treasury, J. W. HILLS, Esq.

Secretary for Mines, G. R. LAMB-FOX, Esq., M.P.

Solicitor-General for Scotland, D. P. FLEMING, Esq., K.C.

Parliamentary Secretary, Ministry of Labour, A. BOYD-CARPENTER, Esq.

Treasurer of the Household, GEORGE A. GIBBS, Esq.

It will be noted that Mr. L. C. M. S. Amery, who represented the Imperial Government at the Ottawa



Mr. Douglas Hogg, K.C., M.P.

Who has been appointed Attorney General in Mr. Bouverie Law's Ministry. A son of Mr. Quintin Hogg, Deputy Chairman of The West India Committee. Mr. Douglas Hogg acted in 1893 as an Overseer in British Guiana.

Conference on Trade between the West Indies and Canada in 1920 is now promoted to Cabinet rank, and that the Hon. E. F. L. Wood, whose report on his West Indian tour in 1921-22 is still the subject of talk, similarly enters the Cabinet. The West Indies will be sorry to lose his advocacy at the Colonial Office, but will realise that his influence and power for helping them now that he is in the Cabinet will be even greater.

Another appointment of interest to West Indians and especially to members of The West India Committee will be that of Mr. Douglas Hogg, K.C., inasmuch as he is son of the late Mr. Quintin Hogg, Deputy-Chairman of The West India Committee

from 1884 to 1898. Mr. Douglas Hogg has, moreover, paid several visits to British Guiana.

Mr. Douglas Hogg first visited Georgetown as a small boy. In 1890, after leaving Eton, he returned to British Guiana to learn the sugar business, and to see the sugar estates there and in Trinidad and Jamaica, which he also visited, and finally he went out again in 1893 to act as overseer at Golden Fleece and Nonparcail, and so to qualify himself to manage the estates business in London, where he afterwards entered his father's firm, then Hogg, Curtis Campbell & Co., with which he remained until his father retired from the West India business. Mr. Douglas Hogg then went to the Bar, where his career has been uniformly brilliant and successful.

Mr. W. Ormsby-Gore, M.P., who becomes Under Secretary of State for the Colonies, will require no introduction to West Indian readers, since he accompanied his predecessor to the West Indies in 1921-22. Mr. Ormsby-Gore's interest in West Indian affairs has been sufficiently indicated by the papers which he has read, and the informative articles which he has communicated to the Press. It will, moreover, be recalled that he is Chairman of the Committee now sitting to consider the question of West Indian Currency. He was one of the first new M.P.'s, having been returned, as Mr. Hogg was also, unopposed.

Sir Samuel Hoare, Bart., C.M.G., who is contesting the Chelsea division, is another friend of the West Indies, being a Director of the Belize Estate and Produce Company. He visited British Honduras last year and on his return voiced his views as to the desirability of appointing a High Commissioner for the West Indies. Sir Samuel Hoare, who is the second Baronet, served in the Yeomanry during the war. Educated at Oxford, he took a Double First, which is no mean achievement.

The majorities in recent Parliaments have been :

Year.	Majorities.
1886	Unionist 114
1892	Liberal 49
1895	Unionist 152
1900	Unionist 131
1906	Liberal 356
1910, Jan.	Liberal 124
1910, Dec.	Liberal 126
1918	Coalition 263

For purposes of reference, it will be of interest to record that before the dissolution the House of Commons was constituted as follows :—

Coalition Unionists	316
Ulster Unionists	22
Independent Unionists	9
Coalition Liberals	119
Independent Liberals	33
Labour Party	76
Coalition Labour	4
National Democratic Party	7
Independents	9
Sinn Féin	73
Nationalists	7
Speaker and Chairman	2

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"VIA COLENDI HAUD FACILIS."

The Agricultural College's Motto.

As briefly stated in last CIRCULAR, the above line, adapted from Virgil's Georgics, Book 1, 120 and 121, has been selected by the Governing Body as the motto of the West Indian Agricultural College. It may be roughly translated: "The path of cultivation is not an easy one." Virgil's line is: "Pater ipse colendi haud facilem esse viam voluit," which may similarly be rendered: "God willed it that the path of cultivation should not be an easy one."

With a view to establishing a tradition from the outset the Governing Body have also selected College "colours," those chosen being maroon and sage green bordered by narrow lines of white, the wearers of ties or hat ribbons of which, will, in days to come, be regarded as scientific agriculturists.

Before he handed over the Seals of Office, Mr. Winston Churchill, who has evinced a close interest in the agricultural movement, addressed a letter in the following terms to the Governors of the tropical African colonies :—

Downing Street,

31st July, 1922.

SIR,—I have the honour to transmit to you a copy of the preliminary and provisional announcement and the first year's Prospectus of the West Indian Agricultural College.

2. This undertaking, which I regard as one of great importance to the West Indies, and of considerable interest to the Empire generally, has now reached a stage sufficiently advanced to enable a few students to be taken in October next. By that time one of the College buildings will be ready for use. The design for the main College building has been approved; plans are in course of preparation; and it is hoped that this building will be completed in time for the College to receive a full complement of students by October, 1923. The former Imperial Department of Agriculture was absorbed into the College on the 1st April last.

3. You will no doubt consider how far it is possible for your Government usefully to enter into relations with the College, and whether it would be desirable to send any students to take courses of instruction there. You will observe that the tuition fees for the diploma course are £50 a year. Any exchange of publications that has been made with the Imperial Department should, of course, be continued with the College.

I am, etc.,

(Signed) WINSTON S. CHURCHILL.

Among the visitors to The West India Committee's rooms at 14, Trinity Square, during the past month, have been the following :—

Mr. L. G. Alston, Mr. Robert Anderson, Miss L. Bedard, Mr. Alistair Cameron, Mr. Paul Cressall, Dr. J. N. Fox, Mr. Murray F. Gow, Mr. V. Hanschell, Mr. V. C. Hanschell, Mr. W. Scott Herriot, Mr. F. W. Hopkinson, Mrs. Knight, Hon. G. Laffite, Mr. Dudley Leacock, Sir George Le Hunte, G.C.M.G., Mr. W. E. Nowell, Mr. Leslie H. Ower, Mrs. Rutherford, Sir Arthur Shipley, G.B.E., and Dr. E. M. Skeete, Mr. Max Smith, Hon. W. A. S. Vickers, Hon. R. Ancher Warner, K.C., Mr. W. R. Dunlop, Lord Forteviot, Mr. E. D. Laborde, I.S.O., Lieut.-Colonel Sir Henry L. Galway, K.C.M.G., D.S.O.

EUROPE'S SUGAR CROPS.

Licht's Estimates for 1922-23.

Herr F. O. Licht, of Magdeburg, who has resumed the publication of his monthly report, gives the following estimate of European beet sugar production for 1922-23, as compared with the actual results for 1921-22 :—

	1922-3 Tons.	1921-2 Tons.
Germany	1,600,000	1,300,000
Czecho-Slovakia	750,000	650,000
Austria	10,000	16,000
Hungary	50,000	60,000
France	500,000	305,000
Belgium	800,000	200,000
Holland	285,000	380,000
Denmark	105,000	146,000
Sweden	63,000	255,000
Poland	270,000	174,000
Italy	260,000	217,500
Spain	170,000	83,000
Russia	220,000	50,000
Other countries	106,000	76,200
Total, Europe	4,758,500	3,987,000

He thus foreshadows an increase of 700,000 tons. The pre-war crop was however 8,918,638 tons and Europe therefore has much leeway still to make up. With regard to Germany's production he gives the following figures for the twelve months from September 1st to August 31st :—

	1921-22 Tons	1920-21 Tons	1919-20 Tons
Production	1,305,810	1,101,235	710,627†
Imports	180,330**)	46,658**)	101,686**)
Initial Stocks on Sept. 1st	63,663	84,659	217,708
Total	1,550,012	1,232,852	1,030,111
Total Stocks on Aug. 31st	72,858	63,662	84,959
Deliveries	1,477,154	1,139,190	951,152
Exports	17,240	4,462	4,969
Consumption 12 months	1,450,014	1,164,728	946,183
Consumption August	115,342	118,224	76,685

† 1 metric ton = 1,000 kg.
 * consumed therefrom 133,405 tons.
 ** foreign sugar for consumption.

THE CUBAN CROP for 1921-1922.

The final total of the Cuban sugar crop for the 1921-22 campaign is given by Gurma-Mejer as 8,996,887 tons.

This remarkable total compares with 3,986,040 tons for 1920-21, and beats the previous record—namely, 8,971,776 tons in 1918-19—and has been achieved in spite of financial difficulties and labour shortage, following the exodus of West Indians after the collapse of the boom.

The development of the Cuban sugar industry under American auspices has been rapid, the crop for 1899-1900—the year which followed the surrender of the island to the United States—having been 308,543 tons only.

To obviate the removal of their names from the mailing list for the CIRCULAR, the few members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

SOUTH AFRICA'S SUGAR.

By reason of the sub-tropical nature of the climate in Natal, that portion of the South African sugar industry is confined entirely to the coast lands. There is, however, a wide belt of fertile land in Zululand, stretching from the Umzini-Kulu River in the south, northward up the Zululand coast, where both soil and climate are suitable for sugar cane cultivation, and where the development of the South African industry is now taking place.

Figures given in the *South African Sugar Journal*



Photo by [Russell] Sir Samuel Hoare, Bart., C.M.G.

The New Secretary of State for Air, who, as a Director of the Belize Produce and Estates Co., is largely interested in British Honduras, which he visited last year.

Annual show that the industry increased from an output of 26,000 short tons in 1902-3 to 152,000 tons in 1921-22—in 1910-20 the output being as much as 189,183 tons.

The total area under sugar cane cultivation in Natal and Zululand at the present time is estimated at 120,000 acres. The yield of cane varies greatly, according to soil and climate, the biggest return being obtained in Zululand. Some lands give as much as 50 to 60 tons, but a fair average is 25 to 28 tons per acre, every second year, the canes taking from 18 to 24 months to mature. The amount of sugar yielded varies considerably, according to quality of cane and factory efficiency, but a fair estimate is that from nine to ten tons of canes are required to make one ton of refining sugar, and from 11 to 14 to make one ton of direct consumption sugar. It is interesting to note that the first industrial sugar cane in South Africa was planted in Natal in 1849, the first sugar being made in 1852. The cane was the Green Natal (green transparent), which, the *Annual states*, was probably indigenous to the colony.

SUGAR EXPORT CORPORATION.

Result of First Year's Working.

It will be remembered that at the close of last year there was considerable animation in sugar circles of the United States in connection with the formation of a combine between United States refiners and Cuban producers, for the purpose of refining sugar on "toll" in bond for export purposes, a special Act—the Webb Act—being passed for the purpose of enabling the bonding manufacture to be carried out. Much apprehension was felt at the time in the West Indies as to the extent of the operations, it being feared that the large quantity of comparatively cheap sugar thus resulting and dumped on the United Kingdom might seriously prejudice the market there for West Indian production.

The Sugar Export Corporation, as the combine was termed, has, says the *Louisiana Planter*, now issued its report. The corporation came into existence by joint co-operation on the part of several sugar refiners in the United States on October 15th, 1921, and the contract with the Cuban producers, which was for 230,000 tons, was completed on December 24th, 1921, the entire quantity being refined and sold by May 1st, 1922. The gross receipts from the sales was \$16,000,000. The sugar was shipped to fifty-seven countries. The largest amount (53,800 tons) was sent to England. France purchased 36,500 tons, Germany 10,600 tons, India 11,300 tons, China 10,900 tons, and the West Indies 700 tons. The report states that "the net results obtained for the producers correspond to that obtained by other sellers of Cuban sugars for the same period."

MOLASSES IN CANADA.

Railways refuse to carry Puncheons.

Puncheons of molasses will no longer be accepted by the Canadian railways for transport over their systems after December 31st, 1924. In announcing this decision the Chairman of the Canadian Freight Association states that this action is necessary because the experience of the railways is that the puncheon is too frail a container for handling such a heavy commodity, which has resulted in numerous claims for loss and damage. It is felt that if molasses came forward in barrels or tierces, containing from 40 to 50 gallons, it would stand the steamship journey better, and could be loaded in cars more economically, the barrels or tierces being placed on end, instead of on their side, thus eliminating the necessity of expensive blocking.

The barrels or tierces would also avoid loss of time, to wayfreight and freighthouse crews, which the railways are now experiencing, due to the care necessary in the handling of so heavy a package as the puncheon.

It is the view of the railways that with the long notice hereby given to the trade, there should be no difficulty for shippers to substitute barrels or tierces on or before January 1st, 1925, for the puncheons now in use.

GLUCOSE AS SUGAR SUBSTITUTE.

During the war, when sugar was scarce, glucose, or invert sugar, was very freely used in the manufacture of jams. One hoped that this substitute had been discarded, but we regret to notice that the *Confectionery Journal* draws attention to an article in the *Practicien Industriel*, describing a method of using glucose, "which may be found useful."

Says our contemporary: There are, as we know, various kinds of sugar, with names ending in *ose*. Sucrose or cane sugar, glucose, starch sugar, maltose, malt sugar, fructose, ripe fruit sugar, etc. All are composed of carbon, hydrogen and oxygen in different proportions. The formula for sucrose is $C_{12}H_{22}O_{11}$; that for glucose $C_6H_{12}O_6$. When sucrose is treated with acid in normal conditions it becomes hydrolysed, and is transformed into invert sugar, a mixture of 50 per cent. glucose and 50 per cent. fructose. The characteristic of fructose is very great sweetness. It is considered to be approximately 30 per cent. sweeter than cane sugar or sucrose. Cane sugar (100 lbs.) gives 105½ lbs. of invert sugar, which is in sweetening power equivalent to 135 lbs. of cane sugar. Nutritive value is about the same. Thus there is apparently a possibility of saving. Invert sugar does not crystallise.

The formula for work is as follows:—Add 4½ pints of water to 10 lbs. of granular sugar and 1-5 oz. of tartaric acid. Boil the solution slowly in a covered vessel for thirty to thirty-five minutes, taking care to stop boiling before the solution darkens in colour and acquires a flavour of grain syrup. When this operation is properly executed it gives about 14 lbs. of syrup, 1 lb. of which has a sweetening power equivalent to that of 1 lb. out of the 10 lbs. of cane sugar. Thus ¼ lb. of this syrup has as much sweetening power as 1 lb. of cane sugar. It is a wonder that invert sugar is not in greater use, especially in times of scarcity.

LECTURES ON HYGIENE.

The Royal Sanitary Institute have arranged for a series of lectures on tropical hygiene to be delivered at 90, Buckingham Palace Road, in November. These will comprise:—

Monday, Nov. 20th: "The Sanitary Inspector in the Tropics," by Dr. Andrew Ballou.

Tuesday, Nov. 21st: "Hook Worm Disease and the Method of Controlling it," by Lieut.-Col. Wm. Wesley Clemens.

Wednesday, Nov. 22nd: "Parasitic Worms and their Migrations," by Prof. R. T. Leiper.

Thursday, Nov. 23rd: "Flies and Mosquitoes," by Lieut.-Col. H. J. Walton.

Friday, Nov. 24th: "Malaria and other Diseases," by Dr. H. B. G. Newham.

The lectures, which will be illustrated by lantern slides and cinematograph films, will commence at 4 p.m. on each day. The chairmen will be Sir Ronald Ross, Sir Havelock Charles, Sir William Leishman, Colonel A. W. Alcock, and Sir J. Kingston Fowler.

INDIA'S SUGAR TRADE.

BY KASANJI D. NAIK.

The article summarised below was published as a supplement to the "Indian Trade Journal" of September 21st. It is of special interest, showing as it does the relation between prices and the demand for sugar by the native population of India, and also the development of sugar production on modern lines.

The year 1921 marks a large recovery in the import trade of sugar in India. Prices in 1920 had reached unheard of levels, with the result that imports were curtailed; only 286,005 tons net of foreign refined and unrefined sugar being imported, as compared with 748,544 tons in the calendar year 1919. Stocks in India were thus very low in the beginning of the year 1921, and the work of replenishing was facilitated by the continuous fall in prices that took place during the year as the result of an increase of a million and a half long tons in the world's production of cane and beet sugar as compared with the previous year, the heavy carry over in the United States of America, and the general under-consumption of sugar in Europe.

The year also saw an increase in the Indian import duty on sugar from 10 to 15 per cent. *ad valorem*, but this had practically no effect in restricting imports, as for the first time after April, 1919, sugar became cheap enough for consumption by men of ordinary means.

India's production of cane and palm gur or jaggery during the year amounted to 2,448,000 tons against 2,951,000 tons in the previous year. She also imported from countries situated on her borders 526.2 tons of unrefined sugar, i.e., gur, as compared with 680.5 tons in the year 1920. A very small portion of the total output of gur or jaggery is usually exported by sea to the United Kingdom, Ceylon, and neighbouring countries. During the year under review the exports by sea showed a considerable falling off, totalling only 5,721 tons, as against 22,875 tons in the previous year. The United Kingdom took only 1,476 tons, as against 16,551 tons in the previous year. Ceylon also took less, only 3,045 tons, as against 5,034 tons in 1920. The exports of gur by land showed an increase during the year, aggregating 7,428.9 tons, as compared with 6,398.2 tons in 1920. No less than 285,000 tons of gur and rab were consumed in refineries for making refined sugar. We thus find that a total of 2,150,982 tons was left in the country for consumption, as compared with 2,572,490 tons in the previous year.

During the year under review India manufactured 73,113 tons of refined sugar in her 29 modern factories and refineries, an increase of nearly 6,000 tons over the output in the year 1920. Her production of refined sugar by the indigenous process of sugar making may be estimated at 50,000 tons, making a total of 123,113 tons refined sugar manufactured in the country. A portion of this sugar is exported by sea to Asiatic Turkey, including Mesopotamia, Persia and Ceylon. The exports

fell during the year, the total quantity exported being only 1,402 tons, as against 4,296 tons in the year 1920.

India's own production of refined sugar is insufficient for her requirements. She has, therefore, to import from abroad, the main sources of supply being Java, Mauritius, and Continental Europe. As compared with the previous year, the imports from Java and Mauritius were heavy. As the prices of Java white and brown sugars were falling, and as local stocks were depleted, India took the opportunity of buying heavily. As regards Mauritius, the control of the Royal Commission on supplies of sugar in that island came to an end in February, 1921, and the crop of 1920-21 was a bumper one. These favourable circumstances account for heavy importations of Mauritius sugar. Beet sugar, the supply of which was temporarily cut off during the war, was imported during the year under review to the extent of 7,140 tons from Belgium and the Netherlands.

The table on the following page shows the imports of foreign sugar during the pre-war year 1918 and the last three years:—

IMPORTS BY SEA OF SUGAR 16 D.S. AND ABOVE DURING THE CALENDAR YEARS 1918 AND 1919—1921.

Sugar 16 D. S. and above Countries from which imported.	1918 Quantity in tons.	1919 Quantity in tons.	1920 Quantity in tons.	1921 Quantity in tons.
United Kingdom	930	97	7	85
Germany ...	4,528	—	—	5,312
Belgium ...	407	—	—	1,828
Netherlands	—	—	—	—
France ...	35	—	—	—
Austria-Hungary	73,595	—	—	—
Straits Settlements (including Labuan)	3,008	19,874	8,850	6,747
Java ...	551,864	349,417	271,949	583,943
China (including Hongkong)	1,979	19,815	7,251	4,746
Japan ...	(a)	587	957	651
Egypt ...	(a)	2,963	4,911	461
Ceylon ...	(a)	4	176	1,471
Mauritius and Dependencies	113,091	44,523	16,987	25,161
Other Countries	494	161	1,610	3,644
Total	749,926	410,381	312,998	583,986

(a) Included under "other countries."

A negligible quantity of sugar 16 D.S. and above is imported by land from Afghanistan, Western China, and the countries situated on India's borders. The imports were this year 11.45 tons, as against 10.55 tons in 1920.

India's imports of refined sugar both by sea and land thus amounted to 583,997 tons, while raw sugar (not gur) was imported to the extent of 506 tons. It should be noted that all this sugar is not consumed within the country. A part is re-exported by sea and by land. The re-exports by sea of foreign refined sugar, which are principally to Arabia, Persia, Kenya Colony, Asiatic Turkey, and Aden and Dependencies, showed a decline during the year, only 28,418 tons being re-exported, as against 77,579 tons in the previous year. This decline is, however, natural, the year 1920 being exceptional in the history of sugar, the keenness of demand and high prices prevailing in Europe and America causing India to re-export a large

quantity to the United Kingdom, the United States of America, Belgium and the Netherlands—countries which do not usually draw upon India for their supplies. As regards exports by land, these showed an increase naturally, because the fall in prices encouraged consumption. These amounted to 9,649 tons, as against 5,845 tons in the year 1920.

The re-exports by sea of foreign unrefined sugar are significant. Only 20 tons out of the 506 tons imported were re-exported during the year.

Summarising the position, we find that exclusive of the stocks carried over from the previous year there were 668,127 tons of white and brown sugar available in India for consumption during the year, as shown below:—

	Tons.
India's production of refined sugar	123,113
India's import by sea of white and brown sugar	584,492
India's imports by land of refined sugar	11
Grand Total	707,616
<i>Deduct—</i>	
Re-exports by sea of foreign refined and unrefined sugar	28,438
Exports by sea of refined sugar produced in India	1,402
Exports by land of refined sugar	9,649
Total	39,489

We are unable to say how much of this sugar was actually consumed during the year and what quantity was stored as invisible stocks. But a comparison of the visible stocks at Bombay, Karachi and Calcutta in January, 1921, and the beginning of 1922 shows that there was a considerable carry over at the end of the year.

	1921	1922
	Stocks in bags.	Stocks in bags.
Calcutta (Port Warehouses only)	138,687 (4th Jan. 1921).	376,952 (30th Jan. 1922).
Bombay Total Stocks	184,000 (1st Jan. 1921).	241,000 (1st Jan. 1922).
Karachi Total Stocks	137,000 (5th Jan. 1921).	227,000 (28th Dec. 1921).
Total	459,687	844,952

During the calendar year 1921 India imported by sea 78,170 tons of molasses, as against 91,918 tons in 1920. In the five years preceding the war the net imports of this commodity averaged 93,354 tons. Over 45,000 tons of molasses are produced in India by modern factories and refineries. Besides this, nearly 50,000 tons of molasses are produced every year by small establishments refining gar according to the indigenous process. All this is consumed within the country, as there are no exports or re-exports of this commodity. It is principally used for distilling for rum and for curing tobacco. It has not yet come into any appreciable use as a cattle food, nor is this by-product of the sugar industry being utilised for the manufacture of motor fuel, although it is reported that some firms are interesting themselves in this matter.

India imports confectionery, including jams and jellies, principally from the United Kingdom and Australia. During the year under review there

(Continued at foot of next column.)

ARRACK AND ALCOHOL.

The Ceylon Government has appointed a Commission to report on the prospects of combining the distillation of arrack on a large scale with the production of power alcohol and the manufacture of sugar, says the *Manchester Guardian Commercial*.

An effective denaturing product is found in the locally produced citronella oil. Coco-nut and palmirah toddy, maize, cassava, sugar-cane, and waste vegetable matter are suggested as suitable bases for the production of power alcohol. The late sugar refineries at Jaffna proved that Ceylon could produce good power alcohol at a fair price from molasses or toddy. Experts attribute the failure of the sugar refineries mainly to wrongly designed machinery. The same machinery with some alterations is now giving a good return in India.

It is the opinion of experts that Ceylon, like Mauritius, could easily grow 30 tons of cane per acre, yielding 2 to 2½ tons of refined sugar. Even with 25 tons of cane per acre a fair profit could be made. A central sugar factory to deal with 250 tons of cane daily, or 25,000 tons per season of 180 days, would require 1,000 acres at 25 tons per acre. Crop rotation would increase the acreage to 2,000 acres. The cane would yield 12 per cent. total sugar and molasses, or 3,000 tons per season, of which 70 per cent. would be first-quality sugar, 20 per cent. second quality, and 10 per cent. molasses.

In order to supply the sugar at present imported into Ceylon eight factories of the above capacity would be required.

was a decrease in the imports under this head, only 1,137.5 tons having been imported against 2,743 tons in the year 1920. The whole of the quantity imported is not consumed within the country. A portion of this is re-exported, the figures this year being 60 tons (confectionery excluding jams and jellies), against 45 tons last year. India also exports by sea to foreign countries confectionery locally manufactured, the figures for the year under review being 54 tons, against 34 tons in the year 1920.

It is clear from this review that India's net imports by sea of foreign refined and unrefined sugar during the year amounted to no less than 558,054 tons. Although the imports were less than in the pre-war year 1913, when they totalled 748,544 tons, the money value was greater than that year by Rs. 9,12,85,670. The fact that India is well able to spend over 22 crores of rupees on her sugar requirements should act as a powerful stimulus to capitalists to explore all suitable localities for setting up well-equipped factories on up-to-date scientific lines. The enhancement of the import duty on sugar from 15 to 25 per cent. and the increased railway freights should prove an additional incentive to the development of the Indian sugar industry on sound lines, and it is hoped that the necessary enterprise and capital will be forthcoming in the near future.

SANITATION IN THE TROPICS.

BY PROFESSOR W. J. SIMPSON, C.M.G., M.D.,
F.R.C.P., D.P.H.

(Continued from page 495 and concluded.)

The prevention of disease is a financial gain. Each life has a potential value which reaches the maximum at the productive age. From this aspect the mortality and sickness caused by either endemic or epidemic disease mean a monetary loss to the community and to the individual. To combat an epidemic there is the large expenditure which has to be paid by the community on measures for the suppression of the disease. Extra staffs, hospitals, nurses, medicine and other requisite material soon swallow up large sums of money. There is also the financial loss due to death and sickness, and there are the commercial and trade losses due to quarantine and restrictive regulations on transit of goods and merchandise. If these items of cost, direct and indirect, were dealt with in medical reports on each epidemic the total amount would surprise most people. It was estimated that Bombay lost £100,000 a week when plague broke out in that town in 1896.

Some fifty years ago an eminent and exceptionally experienced British sanitarian declared, as a result of careful work and observation, that "It has been proved over and over again that nothing is so costly in all ways as disease, and that nothing is so remunerative as the outlay which augments health and in doing so augments the amount and value of the work done."

It is not easy to get this well-established fact recognised. The Americans have realized it more quickly than those responsible for the welfare of the native population in our tropical possessions. Once it is grasped there will be hope of more rapid progress than at present obtains.

The modern American view based on experience is that prevention of disease in a community is a commercial asset—and that an organization for that purpose is a paying concern. They were convinced by Gorgas's success in abolishing yellow fever from Havana and introducing sanitary measures which converted that extraordinary unhealthy city into one of the healthiest in the world. Havana is no longer avoided as a place of pestilence. That conviction was still further strengthened by Gorgas's triumph in the Panama Canal Zone, where he conquered yellow fever and malaria, and reduced the death-rate amongst canal employees from 40 per 1,000 per annum in 1904 to 7.5 per 1,000 later; and by this means gave opportunity for the engineering works to be carried out by Goethal under healthy conditions. Although Gorgas was given a free hand by President Roosevelt, he accomplished his great task economically, and there was no extravagant expenditure. The cost did not exceed one per cent. of the capital outlay.

In contrast to this achievement was the failure of the former attempt—not on account of engineering difficulties, but owing to financial collapse, caused by the enormous expenditure on supervision and labour entailed by sickness and death, as well as the alarm created by the great loss of

life. The French lost over 22,000 labourers in five years; 1,000 negroes imported from the West Indies died within six months and 1,000 Chinamen lost their lives in the same period.

To these striking examples of the power of properly directed preventive measures may be added some of the experiences of the effect of tropical sanitation work in the Southern States of the International Health Board of the Rockefeller Foundation. The Board are thoroughly convinced that the prevention of disease is a paying concern and that it is cheaper to possess a well-organized and trained service to remove the conditions favourable to epidemics and endemics than to sustain the economic losses attaching to the prevalence of preventable disease. They preach it everywhere they go, and more than this, they demonstrate it. The Board have been carrying on field experiments in town and country for a number of years with the object of showing that the control of malaria is practicable in town, village and country, and is a paying concern. Having succeeded on a small scale they, in 1920, with the help of the United States Public Health Service, extended their operations to 52 small towns for demonstration purposes, and in 1921 to another 26 with the result that malaria cases were reduced from 30 to 98 per cent. at an average cost per head of about 78 cents.

As one illustration out of many similar ones, Bamberger, a small town in South Carolina, in the year 1918, spent on malaria alone some 24,000 dollars in the form of wages lost, doctors' bills and medicines, and in 1919 over 35,000 dollars, whereas, in 1920, when anti-malarial measures were put into operation, it spent 5,000 dollars, and in 1921 less than 1,000 dollars.

The Board's preventive work on hookworm disease in different parts of the Tropics is well known, and its bearing on the physical and mental condition of those formerly affected. In this connection it is particularly instructive to note that, in the counties of the Southern States where the work has been carried on, the reduction in hookworm has not only removed a menace to health and working efficiency but it has also caused a decline in the incidence of dysentery and typhoid fever, while at the same time the economic and social changes have been as remarkable as the improvement in health.

Apart from any renewed efforts on an organised, suitable, wider, and economical basis, such as I have advocated elsewhere, by British local Governments to ameliorate unhealthy conditions in the Tropics and prevent epidemics, one question may be asked, and it is this. Seeing the importance it is to the Empire that our tropical regions should be fully developed, are no British Rockefellers to be found to assist financially the newly-founded Tropical Disease Prevention Association, which has for its object to work in conjunction with the local Governments in their difficult task, and do for the British tropical possessions what the American Rockefeller is doing, not only for his own country and her possessions but also internationally?

STANN CREEK RAILWAY.

Strangling Effect of Panama Disease.

Judging from the report of Mr. G. W. E. Francis, Acting Superintendent for the year 1921, the Stann Creek Railway in British Honduras is in a bad way.

Its traffic and receipts continue to decline, as is shown by the following figures taken from the last two reports:—

	1919.	1920.	1921.
Passengers carried	7,363	6,056	4,166
Goods ..	1,331,908 lbs.	1,171,002 lbs.	1,100,309 lbs.
Bananas ..	449,877 bunches	363,000 bunches	196,923 bunches
Plantains ..	81,025 (lingers)	46,675 (lingers)	27,150 (lingers)
Smokers (bits) ..	5,700	2,125	5,250
Lumber ..	17,804 feet	94,028 feet	41,103 feet
Passenger Receipts	\$2,396.74	\$2,161.00	\$1,269.25
Goods ..	\$23,575.81	\$18,410.00	\$10,281.00

No particulars are vouchsafed with respect to expenditure, which is an unsatisfactory feature of the report.

The trouble has been largely due to the outbreak of Panama disease, which still holds the banana fields in the district in its "relentless grip" with the result that "a feeling of pessimism, carried over from previous years, seemed to have taken hold of the cultivators, large and small, in the banana area." The hope that cane cultivation might be developed failed to materialise, and to add to the difficulties stock and permanent way are deteriorating. Only one train a week is now run over the line and much difficulty is experienced in keeping down weeds and grass.

It may be recalled that this line was the official response to the larger schemes put forward by capitalists for the construction of a railway to the Guatemala frontier by Mr. Merrilees, Mr. Walter Regan, Fowler, Perks and Co., Mr. Waddington, and Mr. C. T. Hunter. The Stann Creek line, which runs inland from Commerce Bight, 80 miles south of Belize, has no through traffic, coming as it does to a dead end 25 miles inland. A 20 in. gauge was first suggested, but as a result of the protests of the legislature, this was increased to 3 ft., and the line was opened on October 17th, 1907.

HEALTH & WELFARE SOCIETY.

At a meeting of the West India Health and Welfare Society, held on October 31st, at the Royal Colonial Institute, the following Managing Committee was appointed, on the motion of Sir Frederic Hodgson, K.C.M.G., V.D., seconded by Mr. G. Moody Stuart:—

Sir W. Grey Wilson, K.C.M.G., K.B.E., Chairman, Mr. R. Rutherford, Deputy Chairman, Dame Sarah Swift, G.B.E., R.R.C. (British Red Cross Society), Hon. Mrs. Gideon Murray (Overseas Nursing Association), Mrs. Minnett, M.D., Mrs. Freeland, Mrs. John Bromley (St. Kitts Baby Saving League), Mrs. Robert Bryson (Antigua Crèche), Sir George R. Le Hunte, G.C.M.G., Sir Robert Roden, Mr. E. A. de Pass, Mr. Algernon Aspinall, C.M.G., Mr. G. Elliott Sealy, Dr. Andrew Balfour, C.B., C.M.G., Dr. Allwood, Dr. G. C. Low, Dr. H. B. Newham, C.M.G., Dr. St. George Gray, Dr. W. H. Fretz, Capt. G. Knight (Hon. Treasurer), and Dr. G. B. Mason (Hon. Secretary).

A vote of thanks to Sir George Le Hunte, the retiring Chairman, was proposed by Sir W. Grey Wilson and seconded by Dr. G. B. Mason.

THE HEALTH OF BRITISH HONDURAS.

Dr. the Hon. James Cran, M.D., O.B.E., in a letter published in the *British Medical Journal*, of October 28th, stoutly defends British Honduras against charges made by Dr. Freemantle in Parliament, to the effect that the Colony had neglected good advice given to it by Sir Robert Boyce,* and that outbreaks of yellow fever continued to occur. Says Dr. Cran:—

From the date of Sir Robert Boyce's visit in 1905 no outbreak of yellow fever occurred in British Honduras until 1921. In 1905 the outbreak occurred in Belize, a town of over 10,000 inhabitants, through which passes all the overseas trade of the Colony. It was confined to about twenty cases and was stamped out in six weeks. This was characterised by Dr. J. N. Thomas, of New Orleans, one of the leading men of the United States Public Health Service, as one of the finest pieces of work he had seen.

Last year the outbreak took place at a large secondary college about one mile from Belize. Seventeen cases occurred there, but the epidemic was stamped out in sixteen days. Although the epidemic reached the town only three cases occurred there. Surely one might arrive at one of two deductions, either that the "extraordinary insanitary conditions" do not exist, or that the public health service is "extraordinarily" effective. As a matter of fact, British Honduras is extraordinarily free from infectious disease. Notwithstanding the fact that plague, yellow fever, small-pox, alastrim, typhus, typhoid, and diphtheria have all been found amongst our nearest and most intimate neighbours, we have managed to keep them all at arm's length with the single exception referred to.

British Honduras is a much maligned colony, but undeservedly so as regards its health conditions. I have lived here for over twenty-five years, and have only on two brief occasions been off duty on account of ill health, and there are not a few foreigners who can relate the same history.—I am, etc.

In this connexion it is interesting to find Lieut.-Colonel Max Smith, in his latest annual report on the Colony, exclaiming:—

"The old saying 'Give a dog a bad name and hang him' applies to British Honduras, and those who live there wonder how many more years will elapse before the generality of people will realise that for Europeans leading a normal life and taking common precautions, the climate will be found salubrious, pleasant, and healthy. Leaving out 1918, in which year there was an epidemic of influenza, the death-rate taken over a number of years approximates to 26 per 1,000, and over one-fifth of this number of deaths occurs in children under one year of age, who more often than not die through the neglect of their parents and not on account of the climate."

Mr. T. Greenwood is standing for Parliament as the Liberal candidate for Hertford. His opponent is Rear-Admiral M. F. Sueter, Unionist.

* A few copies of Sir Robert Boyce's book, "Health Progress," can be obtained from The West India Committee at the reduced price of 5/- each.

TRINIDAD'S CUSTOMS TARIFF.

Increased Import Duties.

Increases in many of the Customs Duties, particularly on foodstuffs, which had hitherto been exempt from taxation under the British preferential tariff, were approved by a resolution of the Legislative Council of Trinidad and Tobago, on September 15th. Articles affected, together with the new tariff rates, which took effect as from that date, are shown in the following table:—

Article.	British Preferential Tariff.	General Tariff.
Bags, trunks and valises, <i>ad val.</i> ...	10%	20%
Biscuits, bread and cakes:		
(a) Unsweetened, in barrels per 100 lbs.	1/-	2/-
(b) Unsweetened, in tins per 100 lbs.	2/1	4/2
Blacking and polishes, <i>ad val.</i> ...	10%	20%
Boots, shoes and slippers, <i>ad val.</i> ...	10%	20%
Butter and butter substitutes, per 100 lbs.	4/2	8/4
Bicycles, other than motor, <i>ad val.</i> ...	10%	20%
Motor lorries and vans, <i>ad val.</i> ...	10%	20%
Cattle and other Animal Foods, per 100 lbs.	6d.	1/-
Cheese, per 100 lb. ...	4/2	8/4
Cordage and twine, <i>ad val.</i> ...	10%	20%
Cotton, piece goods, <i>ad val.</i> ...	10%	20%
Farinaceous preparations, per 100 lbs.	1/-	2/-
Films, cinematograph, per 100 ft. ...	1/-	2/-
Fish:		
(a) Canned or preserved in jars or bottles, per 100 lb. ...	4/2	8/4
(b) Salmon, trout and mackerel:		
Dried, salted, smoked or pickled, per 100 lb. ...	2/1	4/2
(c) Other kinds, dried, salted, smoked or pickled, per 100 lb. ...	1/-	2/-
Glass bottles, lamp chimneys, and table glassware not of cut glass, <i>ad val.</i> ...	5%	10%
Grain:		
Corn (maize) and oats, per 100 lb. ...	9d.	1/6
Rice and other kinds, per 100 lb. ...	1/-	2/-
Flour and meal:		
(e) Wheaten, per 100 lb. ...	1/6	2/6
(f) Maize or cornmeal, per 100 lb. ...	1/-	2/-
(g) Other kinds, per 100 lb. ...	1/6	3/0
Pulse:		
(h) Beans and peas, whole or split, per 100 lb. ...	1/-	2/-
Hardware, <i>ad val.</i> ...	10%	20%
Hay and chaff, per 100 lb. ...	6d.	1/-
Lard and lard substitutes, per 100 lb. ...	4/2	8/4
Matches, per gross of boxes ...	2/-	4/-
Meat:		
(a) Beef and pork, pickled or salted, per 100 lb. ...	2/1	4/2
(b) Canned, per 100 lb. ...	4/2	8/4
(c) Smoked or cured, including bacon and hams, per 100 lb. ...	2/1	4/2
(e) Other kinds, including extracts, <i>ad val.</i> ...	10%	20%
Milk, condensed, per 48 lb. ...	6d.	1/-
Oil:		
(a) Edible, per gallon ...	6d.	1/-
(g) Other kinds, including essential and perfumed oils, <i>ad val.</i> ...	10%	20%
Paper:		
(b) Printing (for newspapers) and wrapping, <i>ad val.</i> ...	5%	10%
(c) All other kinds and manufactures of paper, <i>ad val.</i> ...	10%	20%
Saddlery and harness, <i>ad val.</i> ...	10%	20%
Soap: Fancy, <i>ad val.</i> ...	10%	20%
Tobacco and snuff:		
Unmanufactured:		
(a) Leaf, containing 25 per cent. or more of moisture when dried at a temperature of 212 deg. Fahrenheit, per lb. ...	3/3	3/3

(Continued at foot of next column.)

LONDON SCHOOL OF MEDICINE.

Dr. Hugh S. Stannus presided on November 2nd at a dinner of the London School of Tropical Medicine, held at the Trocadero Restaurant. In the speeches reference was made to the proposed incorporation of the school with the new Institute of Hygiene, founded with the assistance of the Rockefeller Fund.

Sir Arthur Robinson, Permanent Secretary of the Ministry of Health, and formerly of the West India Department of the Colonial Office, replying to the toast of "The Guests," proposed by Captain Sir Arthur Clarke, said that when he first entered Downing Street the usual shibboleth was, "Where are the Leeward and Windward Islands, and which are which?" He referred also to the despatches which—being new to the job—he read, one being from a doctor, who described the roads of the island in which he lived as "winding a pleasing and vermiculous course over hills denuded of natural verdure." Another reported that he had "seen no cases of yaws, though fowls frequently suffered from warts." Passing from gay to grave, he said that the genesis of the proposal was that there was room for a school of instruction and research in public health; the term to be read in the widest possible sense—national, Imperial, and international. That was the conception which the late Minister of Health seized upon and put to the Rockefeller Foundation, and it was to carry out that conception that the Foundation made their magnificent gift, to which the Government had replied by undertaking to meet the expenses of running such an establishment. Progress had been made to the extent that a site had been acquired. The new institution must have a very close relation with the School of Tropical Medicine, and must, if possible, amalgamate with it; but in such a way as to secure a continuance of the work done by the school. If amalgamation came, then, consistent with unity, everything possible should be done to preserve the traditions of the school and to carry on and extend its work as part of the great general work of public health. The proposal was still under consideration. The Ministry of Health, the Rockefeller Foundation, and London University would welcome in the heartiest possible way a solution.

Sir Havelock Charles, proposing "The Chairman," said that the school would be willing to go on with the incorporation if the staff and students could be sure that they were being met freely and well in their aspirations.

(b) Leaf, containing less than 25 per cent. of moisture, per lb. ...	4/3	4/3
Manufactured:		
(d) Cigarettes, per lb. ...	7/3	7/3
(f) Other manufactured tobaccos, per lb. ...	6/3	6/3
Vegetables:		
(a) Dried, canned or preserved, per 100 lb. ...	4/2	8/4
(b) English potatoes, onions and garlic	1/-	2/-
(c) Fresh, other kinds, per 100 lb. ...	free	free
Wood and timber, unmanufactured:		
(a) Lumber, sawn or hewn, undressed, per 1,000 ft. ...	5/-	10/-
(b) Lumber, sawn or hewn, wholly or partly dressed, per 1,000 ft. ...	6/3	12/6

ST. KITTS' MINERALS.

Petroleum Ruled Out.

BY AN OCCASIONAL CORRESPONDENT.

Those who had hoped that oil might be found in the Leeward Islands will be disappointed to learn that Mr. Kenneth W. Earle, Government Geologist to the Windward and Leeward Islands, has found no justification for it, at any rate, as far as the Presidency of St. Kitts, Nevis and Anguilla is concerned.

In a report to the Secretary of State for the Colonies on the geology of those islands, which the writer has been permitted to read, he states that the geological formation of Anguilla indicates that it is under the sea to the north of the island that oil would be expected to accumulate if anywhere present. There appear, however, to be no seepages or surface indications of oil either in the island itself or on its shores, and Mr. Earle adds that although the lithology is not strongly opposed to the occurrence of oil, he has seen nothing to lead him to the belief that oil is present in or near the island. Lignite exists, but in such small strata that he did not feel justified in the expense of excavation for what must be, at the best, only a thin seam of brown coal of no economic value outside the island itself.

Phosphates and guano occur, and Mr. Earle summarises the attempts made to export them on commercial lines, the last shipment having been made in 1871, after which the industry languished, owing probably to the exhaustion of the material, and possibly in some measure to the foundering of the ship which was carrying the dock.

Salt is an important product, and when he visited the island over 1,000 tons were stored in the open in two huge heaps awaiting shipment. The chief difficulty is the finding of a market, since many islands refuse to take the salt in its coarse, crystalline form. This, says Mr. Earle, could be remedied by the erection of a crushing plant and the production of fine table salt. The question of storage has also to be considered, since the method of heaping in the open air is calculated to an actual loss of something like 10 per cent. by solution during heavy rains.

WASTEFUL SALT PRODUCTION.

In St. Kitts there is a large salt lake at the southern extremity of the island, to which the sea is admitted by sluices. In the dry season the water evaporates, leaving the crystalline salt round the margin. At the time of Mr. Earle's visit, a half-hearted attempt was being made to resuscitate the industry. A large heap of salt was collected on the shore, which, after five years of heaping, had become covered with a coating of dirt, and lost practically all its crystalline structure owing to solution by rain. Mr. Earle considers that the salt industry might become an important source of revenue to the island.

Specimens of galena, a valuable ore of lead, were submitted to Mr. Earle, but he failed to find any further traces of the mineral at the spot from which the samples had been taken. The only hope would be to find a definite vein of the ore, which, however, Mr. Earle regards as unlikely where all the founda-

tion rock, of itself not a favourable type for the occurrence of oil bodies, is smothered by later volcanic detritus. Sulphur and gypsum were found, but not in sufficient quantities to be of economic value.

The "Mine d'argent" referred to in an old French map, could not be found, and the only deposits which might be worked advantageously were those of kaolin, that might prove of value as a china clay for the manufacture of porcelain if used in association with a brilliant red ferruginous ochre, also found locally.

MOUNT MISERY ONLY DORMANT.

But though Mr. Earle does not hold out any hope of minerals proving economically valuable in the Presidency, his report, which it is hoped will eventually be published, is full of interest. Mr. Earle explored Mount Misery and has arrived at the conclusion that it can be considered as only dormant at the present time. Black Rock, by Dieppe Bay, is evidence of a former volcanic flow, whilst the soil of the island is largely made up of volcanic ejecta.

Brimstone Hill he now identifies as a secondary adventitious cone, being evidence of volcanic forces that did not culminate in eruption, which disposes of the tradition that the "Gibraltar of the West Indies" was ejected en bloc from the crater of Mount Misery. The strong smell of sulphur which all who have been fortunate enough to visit the hill will have noticed, emanates, he thinks, from a submarine souffriere. Lime is burnt at Brimstone Hill, a very pure limestone yielding a valuable product, but one which can only be of use for purely local purposes.

Appendices to Mr. Earle's report are devoted to water supply. So far as St. Kitts is concerned, he reminds us that the town of Basse Terre originally drew its supply from the Olivees River by a pipeline now used solely for Olivees and Buckley's Estate, but now obtains its water from the weir in the South-East range of mountains. It is now proposed to tap Stonefort River, which should prove adequate, and in this connection Mr. Earle sounds a note of warning about deforestation, stating that it is of the utmost importance that the law maintaining the virgin forests above 1,100 feet in altitude, should be rigidly enforced, since any deforestation would be certain to be followed by a serious depletion in the volume of water carried off by the rivers, which is little, if any, in excess of that required for future development of sugar factories and public works in Basse Terre.

CURIOUS APATHY IN ANGUILLA.

In Anguilla a new well is to be sunk, but Mr. Earle does not think that it should be bored deeper than five or six feet. In view of the comparative failure of wells, he thinks that the island must fall back on the alternative of storing the rain water that falls above the ground, all that is required being a gutter made of wood, if expense be a consideration, and a cement reservoir. A rainfall of 86 in. per annum over a roof space of ten yards square, assuming that no water be lost by evaporation, would produce 157,500 gallons of water a year, and this gives some indication of what may be done.

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NIGERIAN TRADE.

Evidence of the manner in which in 1921 Nigeria was affected by the world's industrial depression is afforded by the report of the Customs' Department of that Colony for that year, which shows that the value of the trade of that year was only 50 per cent. of that of 1920. The agricultural industries, on which Nigeria mainly depends, suffered severely. The natives at the end of 1920, when the slump in prices began, not only held their hand in production, but also their stocks, in hopes of a rise, with the inevitable result. This was particularly the case with palm and shea products, and it was not until the latter half of 1921 that the stocks were offered for sale. The effect of this was that in 1921 the exports of palm kernels were only 153,354 tons, as against 207,010 tons in 1920; of palm oil 52,771 tons, as against 84,856 tons; and of shea products 5,770 tons, compared with 9,905 tons.

The result of this, coupled with the fall in prices, was that the value received for these products in 1921 was very much less than in 1920. Kernels dropped nearly £3,000,000, palm oil slightly over £3,000,000, and shea products nearly £60,000, the decrease ranging from 48 per cent. with the latter to 64 per cent. in the case of palm oil. The cacao producers suffered to a still greater extent, for although the 1921 export was slightly more than in 1920, 359,000 tons as against 343,000 tons, the 1921 value was only £486,000, as compared with £1,238,000 in 1920.

As *West Africa* points out, however, the fact remains that in a year of especial depression the value of Nigerian trade was 50 per cent. greater than in the normal year 1913.

OBITUARY.

We regret to state that Mr. Gordon William Turner died at 84, Gloucester Gate, W., on November 1st, aged 78.

Mr. Gordon Turner was the second son of the late Rev. Sydney Turner, Dean of Ripon. He joined the staff of the Colonial Bank in 1866 and after five months' service in the London office he went out to the Barbados Branch in the following April. In 1878 he returned to London to take up the assistant secretaryship, and on July 1st, 1897, he became secretary, a position he continued to fill until July 1st, 1910, when he retired after forty-four years' service.

Mr. Earle adds dryly, "Either obstinacy, or failure to realise this, prevents the inhabitants adopting this procedure to any great extent. When inhabitants of West End Village are content to walk three miles each way for water, and the inhabitants of Circus Bay prefer to climb a steep hill 120 ft. high and down the other side to the Valley well—a total distance of nearly two miles there and back—rather than catch water off their own roofs, just because it has been the custom from time immemorial to do so, we are faced with the question as to whether it is worth while to provide a water supply for a population who apparently do not need it. Perhaps, in future, with the annual diminishment of rainfall claimed to exist, the drying up of the few—at present—inexhaustible wells will make them wiser."

AN ENGLISH ELECTRIC PLANT.

For West Indian Agricultural College.

In arranging for the equipment of the temporary building and residences for the West Indian Agricultural College, it has been the policy of the governing body to give a preference to British materials and apparatus wherever this has been practicable.

In pursuance of this policy they recently invited tenders from ten or more British manufacturers for an electric lighting plant of British make and as a result an order has now been placed with the firm of Petters, Ltd., of Yeovil, for the requisite apparatus for lighting the college building and residences.

It was found that the English prices compared very favourably with those quoted for American



A Petter-paraffin Engine.

As supplied to the West Indian Agricultural College.

plant, now so largely advertised and used throughout the West Indies, and it is claimed for the British apparatus that its finish and durability is far better than are those of its foreign competitors.

The Petter plant now to be installed comprises one Petter Junior direct-coupled electric lighting plant consisting of 5 h.p. Petter Junior petrol-paraffin engine, and 3 k.w. 110 volt shunt-wound dynamo, both machines mounted on cast-iron base-plate, with large capacity water tank. A battery charging switch-board, 25 amperes capacity, complete with shunt regulator is also supplied, together with a 175 ampere hour Fuller battery 60 cells, complete with wood stands, but without acid.

The plant is very compact. The engine, which is vertical, works on the two-stroke principle, which gives a power stroke for every revolution of the fly-wheel. It has a highly sensitive governor which should ensure steady running. The provision of magneto ignition enables the engine to start in-

stantly on a small quantity of petrol, after which it runs on kerosene, the change over being automatic.

In the course of their inquiries the governing body find that there were several electric lighting plants on the market at prices equal, and in some cases lower than those asked for American apparatus of a similar nature, and one can only conclude that the reason why so many houses in the West Indies are lighted by plant from the United States and so few with sets from England is because English manufacturers do not send out their travellers and do not appoint agents overseas and supply them with spare parts as the American manufacturers do. Moreover, American exporters pay much more attention to Press and general publicity than English manufacturers do, and consequently their name and manufactures are known throughout the islands.

TOBAGO'S NAME SHIP.

Sold out of the Service.

In response to a request from Tobago, the following official record of the island's name-ship is published below:—

Destroyer; 1,087 tons; complement 90.

Built by Messrs. Thornycroft, Woolston, Southampton.

Laid down July, 1917; launched July 15th, 1918; commissioned September 21st, 1918; completed for service October 2nd, 1918. Joined the 14th Destroyer Flotilla, Grand Fleet.

Lieut.-in-Command, Frederick E. Raw, D.S.C. (17th September, 1918). Lieut.-Commander, Lionel G. Dawson (20th January, 1919).

Paid off 21st February, 1919; recommissioned 22nd February, 1919.

Tender to H.M.S. *Blenheim* at Malta.

Lieut.-Commander, Humphrey K. Archer (23rd July, 1920).

Recommissioned at Malta, 13th September, 1920.

12th November, 1920.—Struck a mine ten miles off Tobago. No casualties, underwater damage.

Paid off December 15th, 1920.

Lieut.-in-Command, Philip J. Mack (January, 1921).

Presentation Plate deposited with H.M.S. *Egmont* at Malta.

Sold at Malta, February 9th, 1922, to Messrs. Agnis Bros. for £700 (seven hundred pounds).

The name *Tobago* thus disappears from the Navy List. H.M.S. *Trinidad*, on the other hand, is still afloat, and is now off Chanak.

The Council of the Bristol Chamber of Commerce have been endeavouring to induce Messrs. Elders & Fyffes to carry general cargo to Jamaica. The company have, however, explained that there was not only the objection that they had to refrigerate their holds on the outward voyages, and that it would mean a very serious loss of ship's time if they carried ordinary cargo and had to wait until this had been discharged before refrigerating their holds to receive bananas, but there were also considerations of even a more vital character, which constituted the principal reason that had obliged the firm to return a negative reply to the application of the Bristol Chamber of Commerce.

ANTIGUA FRUIT AND PRESERVES.

Interesting Consignment of Exhibits.

The Government of Antigua had intended to be represented at the Imperial Fruit Show, which was held at the Crystal Palace between October 27th and November 4th, and to that end the local Agricultural Department shipped to The West India Committee, via Canada, 2 barrels of limes, 2 cases of coconuts, and 1 case of preserves. Unfortunately, however, these exhibits arrived too late. This is the more to be regretted since they bore every evidence of being most carefully selected, whilst they were "put up" and arrived in a condition which did credit not only to the exhibitors, but also to Mr. A. E. Collins, the head of the Agricultural Department, and Mr. F. G. Harcourt, Agricultural Superintendent, who arranged for their packing and despatch.

The exhibits included specimens of the following commodities, all exhibited by the Department except where otherwise stated.

Arrowroot	Mango Chutney.
Barbada Ground Nuts.	Orange Marmalade.
Cherry Balls.	Pine Apple Jam.
Cherry Wine.	" " Slices.
Coco-nuts (unhusked).	" " preserved.
Brooker Estate.	Raspberries, crystallised.
Coco-nuts (husked), Cades	Shaddock Peel, preserved.
Bay Estate.	Seed Work.
Gunva Cheese.	Sugar. Yellow Crystals.
" " (with coco-nut)	Bendal's Sugar
" " (with pea-nuts).	Factory.
" Jelly.	Seconds, Bendal's
" Slices, preserved.	Sugar Factory.
Hot Sauce.	Grey Crystals. Anti-
" Pickles.	gua Central Sugar
Limes, green (Body Ponds	Factory.
Estate).	Washed Grey
Limes, green (Dimistale	Crystals. Antigua
Estate).	Central Sugar
Limes, preserved in syrup.	Factory.

Instructions having been given for the exhibits, other than the fresh fruit, to be placed eventually on permanent exhibition at the Imperial Institute, the Director was consulted, and the preserves, etc., have now been added to the Antigua Court in the Colonial collection, where they can be inspected by those interested. With the concurrence of Professor Wyndham Dunstan, the fresh limes were sent to St. George's Hospital, whose secretary acknowledged the gift in the following terms:—

6th November, 1922.

DEAR SIR,—I have to thank you for your letter of the 2nd inst., and for the very kind gift of limes and coconuts for the patients in this Hospital, which was duly delivered and which was much appreciated.

Yours faithfully,

JAS. CHURCHFIELD,

Secretary-Superintendent.

St. George's Hospital.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The Report of the Customs Department of Nigeria for 1921 shows that the exports of palm kernels were 27 per cent. less than those of the previous year, of palm oil 38 per cent., and shea products 41 per cent. The cacao exports were 350,000 tons as against 343,000 tons in 1920.

* * *

The use of alcohol for industrial purposes in the United Kingdom seems to have passed its apex, the quantities delivered for methylation or use in the arts and manufactures during the first nine months of 1922, 1921, and 1920 having been 822,472 proof gallons, 680,369 proof gallons, and 290,762 proof gallons respectively.

* * *

In experiments carried out at the Massachusetts Experimental Station on the effect of treatment of oat and rice hulls with dilute caustic soda for food purposes, it was found that by this means the coefficient of digestibility of the dry matter, in the case of oat hulls, was increased from 36 to 81 per cent., and of rice hulls from 5 to 29 per cent.

* * *

The importation of cinnamon into the United Kingdom continues to decrease, the amounts for January to September being 1,808 cwts. for 1922, 2,783 cwts. for 1921, and 12,861 cwts. for 1920. On the other hand, that of ginger is increasing, the imports for the first nine months of 1922, 1921, and 1920 having been 38,110 cwts., 16,669 cwts., and 122,225 cwts. respectively.

The control of the tessellated scale (*Eucalyminatus tessellatus* Sign) and the mango shield scale (*Coccus acuminatus* Sign), with which the Florida mango trees are most troubled, may, Mr. G. F. Mosnette states, be most satisfactorily accomplished by the use of paraffin oil emulsions, applications of one gallon of stock solution to 70 gallons of water in December, followed by another in March of one gallon stock solution to 80 gallons of water, giving good results.

* * *

Great interest centres in the present beet sugar campaign at Cantley, as on it depends the reply to the question as to whether beet sugar production is an economic proposition in the United Kingdom or not. The Kelham roots are being dealt with at Cantley, thus enabling the latter factory to work up to its full capacity. The question of the cost of manufacture will thus be settled, and the farmers will have by then gained the necessary corresponding experience with the beet growing.

* * *

The United States Public Health Report [87 (1922) No. 9] gives the results of observations on the effect of diet in the prevention and causation of pellagra made at the Georgia State Sanatorium. It is concluded that the protein factor alone was concerned in the development of pellagra in the cases noticed. A low biological protein value, however, is not necessarily indicative of a pellagra-

producing diet. What is wanting may be some special protein combination, or, within narrow limits, special combinations of amino-acids.

* * *

The establishment of the sugar industry in the British West Indies created a considerable industrial demand for articles from "Colonial New England." Among these, says Deane Phillips in an article on "Horse raising in Colonial New England," published by the Cornell University, were horses, and Winthrop in 1648 notes in his Journal the presence of a ship "lying before Charleston with eighty horses on board bound for Barbadoes"—the first known record. The horses, together with oxen from Virginia, were used to turn the sugar mills and for haulage.

* * *

Dr. Margaret E. Wells, on the subject of the use of sugar and other industrial food products as the basis of a child's education, says in her book, "A Project Curriculum": "The school, therefore, must open up to the child the mysteries of the tremendously complete industrial world, the gigantic product of modern civilisation. The child must know the facts of production in order to live decently. He must also know these facts in order either to join the ranks of the producers to their and his own best advantage, or to do justice to the producers in other fields than his own."

* * *

A useful oil can be extracted by pressure from corn (maize) germs. The crude oil is refined by first neutralising the free fatty acids with caustic soda, then bleaching with fullers earth, and subsequently deodorising with steam. There are two modifications of the neutralising part of the process. In the one a large excess of caustic soda is used, and in the other a small amount, followed, after the separation of the soap, by soda ash to harden the soap stock. The oil from the first method has to be washed to remove the occluded soap, but the oil obtained by the first method is stated to bleach better than that from the second. The saponification value of the oil is 187.8.

* * *

Valuable experiments have recently been made in Porto Rico in connection with the mosaic disease of the sugar-cane. Two large insect-proof cages were constructed with the aid of cheesecloth of a mesh fine enough to be insect-proof. These were erected in the middle of a cane-field, and in each were planted 48 plants of a variety of cane particularly susceptible to the disease, one-half of the cane used in each cage being already diseased, the other half being healthy. An abundance of the weed *Eriochlon sub-glabra*, to which the aphid *aphis maidis* is particularly partial, was planted in cage A, and a number of the aphids introduced into it. Cage B was kept thoroughly free from weeds and insects. A month after planting, cage A was thoroughly weeded. The next morning the aphids were seen on the cane, and at the end of two months 15 out of the 24 healthy cane plants had contracted the disease. In cage B the healthy plants showed no sign of infection after over three months.

PERSONAL NOTES.

MR. A. M. THOMAS, Crown Counsel of Kenya, has been appointed Resident Magistrate in Jamaica.

* * *

MR. MEWRURN GARNETT, a member of the Executive of The West India Committee, leaves for British Guiana in the *Coronado* on December 2nd.

* * *

MR. E. LEIGH-BENNETT, who, we regret to say, died last week, was the editor and founder of *Our Western Empire*, which was devoted to West Indian affairs, twenty years ago.

* * *

MR. JOHN QUILLER ROWETT, of Jamaica rum fame, the patron of the Shackleton Antarctic Expedition, had the honour of being granted an audience by the King at Buckingham Palace recently. He was accompanied by Commander Frank Wild.

* * *

AMONG members of The West India Committee who have recently taken up Life Membership are Mr. Thomas Percy Evelyn and Mr. David Laurence Tate. The Committee's Life Members now number 121. The subscription for Life Membership for individuals is one payment of £10 10s.

* * *

DR. GEORGE H. MASSON, medical officer of Port of Spain, was the hero of the recent severe influenza outbreak on board the P. and O. mail steamer *Caledonia*, which raged for 19 days, attacking 75 members of the ship's crew. After the ship's doctor had himself succumbed, Dr. Masson, who was a passenger returning to this country on leave, came to the rescue, and, working night and day, was able to save all but two of his patients.

* * *

SIR CHARLES DAVSON, until recently Chief Justice of Fiji, to which high position he was appointed in 1914, after being for many years Solicitor-General of British Honduras, has retired, and is settling down in England, where his permanent address is 111, Whiteknights Road, Earley, Reading. Sir Charles is a son of the late Mr. George L. Davson, for many years manager of the old British Guiana Bank, and his wife is a daughter of Mr. W. A. Wolsley.

* * *

THE HON GIDEON MURRAY, who, during the late Parliament, sat as M.P. for St. Rollox, Glasgow, has decided not to seek re-election in the next Parliament. We understand, however, that he will in due course return to public life, and interest himself in West Indian affairs, as he has done in the past. As our readers are probably aware, Mr. Gideon Murray is a governor of the West Indian Agricultural College, and so will retain his link with the West Indies even out of Parliament.

* * *

MR. C. H. RICKMAN, whose engagement as Official Adviser to the Government of Jamaica on Income-tax matters, and Chairman of the Assessment Com-

mittee, terminated on October 5th, has come to be looked upon as the Income-tax expert for the West Indies. Since his appointment to Jamaica in 1919, he has visited both Trinidad and Barbados to assist in the drafting of Income-tax legislation in those islands, and he left Jamaica on October 7th, en route for the Windward Islands, in the same connection. Later on, Mr. Rickman may re-visit Trinidad and Barbados to investigate the practical working of the schemes he helped to initiate.

* * *

THE death, on October 24th, of Mr. George Cadbury deprives the cocoa and chocolate industries of a notable figure. His father, John Cadbury, traded in Birmingham in a small way as a manufacturer of these products, which then enjoyed little of their present popularity, hardly a score of work-people being employed at the works in 1861, when Mr. George Cadbury and his brother took them over. Whilst other chocolate-makers at that period were content, by various processes, to counteract the fat, it occurred to Mr. Cadbury to eliminate them, thus producing a better article at less cost. Much of his time was devoted to eminent public work, although, perhaps, his sympathies may be said to have been more pronounced in favour of English industrialists than of Colonial producers.

* * *

THE retirement of Major J. R. Boosé, C.M.G., successively Librarian, Secretary, and Commissioner of the Royal Colonial Institute, will be a matter for deep regret to his many friends in the West Indies. Had he remained in harness until June 23rd next he would have completed 50 years' work for the Institute, and we may be sure that there are many Fellows who will be disappointed at not having had an opportunity of showing their appreciation of his services before he left for the Riviera, where he will spend the winter. Major Boosé was entertained at an informal luncheon, but we hope that that is not the only mark of appreciation which will be shown for all he has done to make the Royal Colonial Institute what it is.

* * *

THE HON REGINALD POPHAM LOBB, C.M.G., B.A., F.R.G.S., who has been appointed Colonial Secretary of British Guiana, in succession to the Hon. Cecil Clementi, has been Administrator and Colonial Secretary of St. Vincent since 1915, with a dormant commission to administer the Government of the Windward Islands, dated May 21st, 1917. Educated at Clifton and Christ's College, Cambridge, he was appointed Private Secretary to Sir Frederick Lugard, High Commissioner of Northern Nigeria in 1900. After various African appointments, Mr. Popham Lobb became Colonial Secretary and Registrar-General of Bermuda in 1908, receiving, four years later, the thanks of the Secretary of State for his memorandum on tuberculosis. Whilst administering the government of St. Lucia in 1917 and 1918, he received the thanks of the United States Government for his services to the Navy Department of that country.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Bahamas Hotel nearing Completion.

Lord Clinton has sent to Mr. R. J. Bowe, the Member for Exuma in the House of Assembly, a framed portrait of his Great Uncle, the late Lord Rolle, with whose death, in 1842, the Rolle barony became extinct. Lord Rolle's father, who died in 1797, acquired several estates in Exuma, where the name is still kept up. On the abolition of slavery, Lord Rolle gave his Exuma estates to his slaves.—Mr. K. S. Murchison, the architect, gives as his opinion that the New Colonial Hotel will be ready for the reception of guests on February 5th next year. For some time past work on the structure has proceeded for twenty-four hours a day. The *Nassau Guardian* records that all of the steel work is being covered by fire-proofing, and that the exterior is to be coloured "Nassau pink."

Barbados' Reformatory System.

The Reformatory system at Dodds has long been widely known. In his report on the institution for last year, Mr. C. Carrington Smith, the superintendent, states that the Government Industrial School fills the role of three institutions:—juvenile prison, reformatory, and industrial school: while in reality the system of reform that obtains, distinctly savours largely of the juvenile prison. It cannot even be classed entirely with an ordinary English Borstal Institution; while from a reformatory and industrial school point of view, one only has to read the recommendations of the Report of the recent Commission in Trinidad, on the reformatory question in that Island, in order to see how far removed this Institution is from a reformatory and industrial school. It is not only a great mistake to let the first offenders be sent to the prison, but also the incorrigibles, since with the requisite increased accommodation at this institution, they should realise that the prison gates are closed against them: and that on their return here up to 25 years at least, they will be sent out under adequate supervision, to work on the plantations in this and the adjacent parishes: and thereby, made to defray their upkeep at the institution; coupled with the hope that eventually they will find it to their best interests to give up some of their incorrigible ways. It would certainly be more remunerative to the Island to work these incorrigibles on the plantations to proper mutual advantage, rather than permit them to become accustomed to the prison routine, where their labour becomes neither beneficial to the Government nor to themselves.

Mr. H. B. G. Austin in British Guiana.

In welcoming Mr. H. B. G. Austin, President of the Barbados Chamber of Commerce, who was on a visit to the Colony in connection with the Inter-Colonial Cricket Tournament, to the Council Meeting of the Georgetown Chamber on September 23rd, Mr. C. Farrar, the President, remarked that the formation of the Associated Chambers had taught them that they had far more in common with Barbados and the other Islands than was ever dreamt of before it was started. He thought that this unity would grow and develop and that we would see before long the formation of the Central Conference which Sir Edward Davson had

urged, and that this Central Conference would eventually take the place of, if it did not actually bring about federation.

Nazareth Baptist Church is in the hands of the Official Receiver for the security of certain debts incurred in connection with the enlarging and rebuilding of the church.—The *Argosy* reports that a trail is being cut from Bartica to Turesi under the direction of Mr. A. J. Cheong and Mr. V. Roth, Government Surveyors, in order that the dangers of the Falls on the Mazaruni River may be avoided.—The Inter-Colonial Cricket Tournament Cup, competed for by Demerara, Trinidad and Barbados, was presented by the Governor to the Barbadian team on October 3rd. Mr. Betancourt the Trinidad captain, said that the trophy had been played for thirteen times since 1893 when the tournament was inaugurated, having been won by Barbados eight times, Trinidad on four occasions, and Demerara once. Mr. H. B. G. Austin, to whom the cup was presented, said that no one who had witnessed the tournament could not be absolutely satisfied as to the revival of cricket in the West Indies.—Mr. Frank P. Rudder, M.I.Mech.E., advisory engineer to Messrs. Henkell, Du Buisson & Co., has arrived in the Colony to advise Messrs. Booker Bros. on the question of altering the boilers and furnaces on their sugar factories so as to enable them to burn no other fuel than megass. At Pt. Leonora the Demerara Co. have used megass only for the last two years.—The ocean-going barge ordered by Messrs. Davson & Co. for use in connection with their sugar estates has arrived in the Colony and is being assembled by Messrs. Sproston under the superintendence of Mr. C. J. Maggs.—Mr. H. Bamford, Steward of the Public Hospital at Georgetown, has been promoted to be Superintendent of the Alms House in succession to Mr. Cook, I.S.O.—The Public Health Department are starting demonstrations with lantern slides on the subjects of public health and sanitation in the villages.—H.M.S. *Valerian*, the Naval Sloop of the North American and West Indies Squadron, arrived off Georgetown on October 10th, on her second visit to the Colony.—The Georgetown Town Council, at their meeting on October 13th, appointed Mr. J. Saley, their London agent.—A Bill is to be introduced into the Legislature, conferring upon the Government the rights and powers with respect to the Railway which the Demerara Railway Co. enjoyed, without, however, some of the obligations under which the Company worked.—Lieut.-Colonel J. H. Wilson, the Deputy Inspector-General, was fined £1 on September 17th for using unnecessary force in ejecting some trespassers from St. James' Barracks.

The sub-committee, consisting of Mr. H. G. Seaford, Mr. J. B. Cassels, Mr. E. Walcott, Mr. C. Farrar and Mr. W. S. Jones, appointed by the British Guiana Sugar Planters' Association to inquire into the question of differences in weights and tests of loaned sugars, have reported recommending that the basis of settlement should be on lenders' contract in every respect unless otherwise privately arranged.

Grading Proposals for Granada Cacao.

Mr. E. P. Smith, writing on October 4th, states that the unusual rainfall of five inches in one hour and a quarter has recently been recorded at Dougaldston, and considerable damage to the cacao cultivation is reported.—A new picture theatre, designated "The Central Electric Theatre," has recently been opened in St. George's.—His Honour G. (P.D.) Walton, the Chief Justice, who was in leave in Barbados during

the Court Vacation, has returned to the colony.—The resignation of Mr. E. D. Laborde, I.S.O., the Colonial Treasurer, who has for some time been acting as Administrator of St. Lucia, is reported.—A branch of the Agricultural and Commercial Society has been started at St. Patrick's and appears to be thriving.—The Society has recommended to the Government the introduction of legislation providing for the establishment of grading centres for produce, contending that a man who is an exporter of an inferior quality of cacao, for example, should by law be compelled to indicate this on his packages, in which way he will be effectually prevented from doing injury to the reputation, not only of those planters whose shipments are of a superior grade, but also the colony as a whole. It recommends that the better qualities of produce should also be graded and marked.—A sample of nutmegs fifteen years old was recently discovered at Grenville in a perfect state of preservation. This is vouched for by two planters whose veracity is beyond question, and seems to point to the possibility of keeping this article indefinitely under the proper conditions.—Considerable anxiety was recently caused by the delayed arrival of the sloop *Assistance*, which took over two weeks to make the passage from Grenada to Trinidad, the distance between the two islands being usually traversed by sailing vessels in twenty-four hours at the outside. This delay was accounted for by a prolonged period of calm, which enabled the tide to carry the vessel down to the Venezuelan coast (where she appears to have been unusually well treated).—The sloop *Advance* was recently wrecked on a reef off Point Salines, the southernmost point of the island. Her cargo was salvaged. This is not the first time that a sloop by this name has met with such a fate, and, if there is anything in a name, builders should take warning!

Property Rights in Dominica.

An important decision affecting property in the Marigot district was given by Mr. Justice Michelin on September 1st, in the case of *Melville Hall Estates, Ltd. v. G. K. Bryant*. In a considered judgment, Mr. Michelin found that persons resident and holding lands in and about the Melville Hall district, their servants and agents had for more than 40 years enjoyed without interruption the unrestricted right of shipping from the jetty and beach at Melville Hall. Such rights might now, therefore, be deemed absolute and indefeasible, and plaintiffs had no right to forbid defendant the use of the jetty and beach.—The Hon. W. M. Wigley has been appointed to act as Second Puisne Judge of the Colony.

A St. Lucia Income Tax Case.

At a meeting of the Castries Town Board on September 30th, Mr. James Plummer was elected Town Clerk.—Judgment has been given by Mr. P. A. McElwaine, magistrate of No. 2 and 3 Districts, for the defendants in the case in which the Treasurer claimed £3,140 from the St. Lucia Usines and Estates Co. (now in voluntary liquidation) in respect of Income Tax.

An Agricultural Loan Bank for Jamaica.

A movement in favour of the establishment of an Agricultural State Loan Bank appears to be making itself felt, as in Trinidad. The proposal was discussed at a public meeting at Mandeville on October 7th, when Hon. A. G. Nash said that £343,000 of the £575,000 deposited in the Government Savings Bank (representing the savings of the people) had been invested in

British and Colonial securities. It seemed incomprehensible to him that while Jamaica was crying for capital to encourage local industries they should be exporting island capital and capitalising other countries. But if this capital was not available for the purpose, then he suggested that what was required might be raised by issuing debentures under Government guarantee. Not only the small landowners, but the big men, some of them, were perplexed how to get aid. The following resolution was proposed by Mr. John G. Miller and passed unanimously:—"That this meeting considers that a State agricultural bank, managed on prudent lines, and with functions adapted to local conditions, would prove an agency of inestimable value in stimulating our paramount industry, increasing our exports, and tending to the general betterment of all classes. That this meeting respectfully recommends the founding and early operation of such a bank to the earnest consideration of His Excellency, and trusts that legislation to that end will be introduced at the next session of the Legislative Council." Mr. Miller referred to the great necessity of some such aid to credit in a colony subject to hurricanes and droughts, whilst Mr. A. G. Benjamin, in seconding the resolution, instanced the Sugar Aid Board as a striking example of the need of a bank such as that proposed.—Sir Alexander Swettenham protested vigorously against the Bill to amalgamate Kingston and St. Andrew at a public meeting, presided over by Mr. W. H. Landale, on October 7th.

The *Gleaner* reports a recrudescence of Alastrim in Portland, which is now fortunately subsiding. The mortality from this outbreak was much higher than in the previous history of the epidemic in the Island.—The death took place on October 5th of Mr. E. H. MacLavery, I.S.O., formerly Collector of Taxes for Kingston, who came to Jamaica in 1865, and took part as a sergeant in the Volunteer Artillery during the Rebellion in St. Thomas in the East in the same year.—The City Council has refused the use of the Ward Theatre, which was built and presented to Kingston for the holding of dramatic performances for another prize fight, which was to have taken place on October 18th.

His Honour Mr. A. V. Kingdon, Resident Magistrate for Kingston and St. Andrew, has gone on leave, at the expiration of which he expects to retire from the Government service. Mr. Kingdon has been connected with the Jamaica Government service since 1880.—There has been keen competition to obtain the contract for the Frankfield extension of the Jamaica Government Railway. Messrs. Cavicchi and McDonald, of the Bedford Construction Company of Halifax, N.S., have visited Jamaica in this connection. The contract has not yet been finally awarded.—The s.s. *Ormes*, under charter to the United Fruit Company, went ashore off Morant Bay recently. Investigation showed that the accident occurred through the engine being put ahead when the signal to go astern was given. The s.s. *Killerig* of the Lindsay, Swan, Hunter Co., salvaged the ship without great difficulty. Little damage, if any, resulted.

The Governor of Trinidad's Salary.

The Governor's salary is fixed at £5,000 per annum by an Ordinance assented to on September 23rd, with salary at the rate of £4,000 when he is on full pay leave.—The Borough Council of San Fernando have been authorised by Ordinance No. 21 of 1922 to lay down, maintain and operate electric works in the

borough.—Mr. Gerald S. Grant, second son of Mr. and Mrs. T. Geddes Grant, was married on October 2nd to Miss Helen Hamilton, of Ontario.

A Coconut Oil Factory for Tobago.

Mr. Robert S. Reid, writing on the 16th October, reports the arrival off Man-o'-War Bay, on the 18th, of a British man-o'-war, thought to be H.M.S. *Repulse*, her object being evidently to anchorage.—The effect of the new United States duty on coconuts is to reduce the value of culls, which can be more profitably converted into copra or oil. There should be a good opening for a coconut oil factory in the Leeward district of Tobago with the addition of a fibre plant and facilities for collecting coconuts all round the coast. The production exceeds five million nuts, and ought to be double that in the next few years.—Cacao pickings are steady and likely to be continuous, if not large, for the balance of the year. The drop in prices is curtailing all efforts to improve cultivation.—Dr. Keogh has now taken charge of the Scarborough Hospital, and it is hoped that this is the first step towards the improved status of the hospital as so long promised. The health conditions in Tobago are no worse than before, but there is still need for improvement, especially in the matter of infant welfare.—There has recently been a number of visitors from Trinidad and elsewhere, and the lack of hotel accommodation is a serious drawback.

The Turks Island's Drought.

Rain was badly needed at the time of the last report of the Direct West India Cable Co., the water question being now a very serious one. Cockburn Harbour and Salt Cay were in the same plight as at Grand Turk. The Bay Wells at Grand Turk were so brackish that the animals refused it, consequently none were looking too well, as one could not get a supply of fresh water for them. The cost of water so far to the Dependency, including gasoline drums, amounts to between £500 and £600.—Business generally has been quiet, as is usual at this time of the year. Several vessels are looked for shortly, to take large cargoes of fishery salt, the price of which has been dropped to 12 cents per bushel.—On the 13th inst., Mr. and Mrs. W. S. Jones, Mr. Franklin and Miss Harriott, Mr. Clifford Darrell and Mr. Edwin R. Frith left on s.s. *Huron* for New York. Mr. Frith went to New York to be treated for cancer. Unfortunately he was in too weak a state to undergo treatment and died half an hour after entering hospital on the 24th instant.—Owing to the absence of rain none of the cotton plantations look very promising.

Mr. Edward D. Laborde, who has recently been acting as Administrator of St. Lucia, has retired from the Colonial Civil Service and intends to settle in England. Mr. Laborde entered the service as a first clerk in the Audit Office, Tobago, in 1882, and since that year he has acted in various capacities in Barbados, Grenada (where he was Private Secretary to Sir Walter Sendall, Governor of the Windward Islands) and St. Vincent. He was mentioned in despatches and thanked by the Secretary of State for his work in connection with the relief of distress caused by the hurricane of 1898, and in 1903 he was made a Companion of the Imperial Service Order. His many friends will welcome him to England.

WEST INDIAN COMPANIES.

United British Oil.

Lord Cochrane of Cultra, presiding at the ninth annual meeting of the United British Oilfields of Trinidad, on October 24th, in moving the adoption of the report, said the adverse balance, which at the beginning of the year 1919 amounted to more than £36,000, had now been disposed of, and that a small balance of £3,300 was for the first time carried forward on the right side. This balance resulted after writing off about £69,000, which included the accumulated preliminary, formation and legal expenses of the various companies during the last ten years, amounting to over £25,000. They had also increased by £10,000 the annual appropriation of account of depreciation of the company's own development expenditure. They had therefore made a substantial start in the direction of clearing out of the balance-sheet such items as must on lines of sound finance be disposed of before a dividend could be thought of.

The total cost of production, refining, etc., again amounted to a very large figure. Field expenditure would always be at least relatively high, despite the energetic economy that was being exercised, because Trinidad was a very costly place in which to work. At previous meetings it had been suggested that this cost figure should be sub-divided into detail. This suggestion had been fully considered, but it had been decided that it was neither useful nor desirable to carry it into effect. It might, however, be of interest to shareholders to state that refinery working expenses, included in this total, showed a gratifying reduction in comparison with last year.

The £30,000 which now stood to the account of depreciation of the company's own field expenditure would clearly fall to be increased out of future profits, and ought not to be lost of the fact that it had never been possible, either in the time of the Trinidad Oilfields or since, to write depreciation off the field expenditure incurred prior to May, 1918, when this company took over the properties. Some £400,000 representing that expenditure was included in the first item on the assets side of the balance-sheet. The company certainly still possessed properties, oil rights, producing wells, roads, buildings, railways, machinery, tools, storage, transport, and other facilities, in consideration of that expenditure, but in the opinion of the board that figure must be written down drastically whenever they were in a position to do so.

Field work was in May placed under the supervision of technicians lent by the *Bataafsche Petroleum Maatschappij*. The production from all sources for the first half of the year amounted to some 22,700 tons, and for the second half to nearly 29,000 tons; but this difference was in part due to the necessary retardation of the drilling programme in the period just prior to the change of field management. Since taking this over the new field manager, Mr. van Zoelen, had, under the guidance of the *Bataafsche* head office, carried out much investigation into the difficulties both of completing wells and of securing production, which had been so marked a characteristic of these and other fields in Trinidad. Such investigation, necessarily slow, had been complicated by the highly variable behaviour of wells and equivalent oil horizons even at short distances apart. It was, therefore, still impossible to make any final statement as to prospective drilling results in the direction of steady and substantial production, but the directors felt that complete reliance could be placed on the care and precision with which the methods of completing wells and of retaining or reviving production were being employed, and that this extreme care should before long give the measure of the production which could really be expected from the average well.

Trinidad Central Oilfields, Limited.

In accordance with the promise given to the shareholders

at the last annual general meeting, Mr. A. Duckham has circulated the first of the quarterly reports it is proposed to issue about the end of the month following each quarter day. The production of the company during 1922 has been as follows:—

The three months to March 31st, 22,825 barrels; to June 30th, 24,079 barrels; to September 30th, 29,007 barrels. All the above production has been obtained from wells on the Tabaguite area. After referring to the launch of the company's tanker, of which an illustration was given in last issue, Mr. Duckham concludes by stating his intention to pay a visit to the field towards the end of November.

Trinidad Transport and Oilfields, Ltd.

At a meeting of the creditors and shareholders, on November 1st, in connexion with the compulsory liquidation of H. W. Wadham & Co., financiers, Mr. E. T. A. Phillips, Official Receiver, who presided, said that in October, 1919, the company promoted the Trinidad Western Oilfields, Ltd., and afterwards bought 100,000 shares of 5/- each in the company. These shares were disposed of privately to clients of the company. In June, 1920, the company obtained an option on land in Trinidad and promoted the Trinidad Transport and Oilfields, Ltd. The Trinidad Transport Co. was not registered until July 26th, 1920; yet as early as May, 1920, H. Wadham & Co., Ltd., offered the company's shares for sale by private circular and succeeded in selling a considerable number. It seemed to him (the Official Receiver) a most extraordinary thing that anybody should offer for sale shares in a company which did not exist. The failure of the company was attributed by its directors to financial depression, but in the opinion of the Official Receiver it must also have been partly due to "a dearth of nugs."

Mortgage Co. of Jamaica, Ltd.

Messrs. Arbutnot, Latham & Co., Ltd., are inviting, on behalf of this company, which was incorporated on November 3rd, subscriptions to an issue of £100,000 7 per cent. first mortgage registered debentures of £100 each at 95. According to the prospectus of the Mortgage Co. of Jamaica, its primary object is to lend money on debentures charged upon estates in Jamaica, and a loan of £400,000 has accordingly been arranged in favour of Messrs. Lindo, Bros., the security being the entire mortgage debenture issue, amounting in all to £650,000, of three Jamaican companies; Keeling Lindo, Ltd., Monymusk Central, Ltd., and Applaton Central, Ltd. Mr. Archibald Sprouer has valued the properties belonging to these three companies at £1,014,087. The Mortgage Co. of Jamaica has an authorised share capital of £50,000, of which £10,000 has been paid up.

Kern River Oilfields of California.

Presiding at the annual general meeting of this company on October 18th, Mr. W. Ivey, the Chairman, said that the only trouble in Trinidad was not the absence of oil, but the difficulty of bringing it to the surface. They had discovered oil in every well they had sunk, and that was something to be pleased at, because it was not every country you could go into and drill and find that every well held oil. In Trinidad the sand was so very fine that it was almost like mud. Subjected to the gas pressure, it formed a glutinous, gelatinous mass that clogged up the hole entirely, and a solid stratum of oil and sand was formed which blocked up the well. Experiments were being made to-day with screens made of very fine wire gauze, very similar to what was used for petrol tanks. In this way they were hoping to overcome the difficulty.

THE MAP OF THE WEST INDIES.

The sale of The West India Committee's Map of the West Indies is increasing rapidly. Since May of this year—when the map was first published—the sales represent over one-half of the number originally produced.

School authorities who have not already obtained supplies of this map for the establishments under their control are advised to send in their orders without further delay, remembering that the Hon. E. F. L. Wood, M.P., during his recent mission to the West Indies emphasised the necessity of pupils being made thoroughly familiar with the geography of their own territory. The West India Committee's Map of the West Indies exactly supplies this need. To the scale of 1:3,500,000, and extending from Tampa, Mexico, in the north, to the extreme limits of British Guiana in the south, the map covers every part of the West Indies and a portion of the mainland of Central America. The Panama Canal not only appears in its relation to the West Indies, but is also shown in a special inset on a larger scale (1:200,000), whilst in other insets are represented groups of the islands to the scale of 1:1,500,000.

The price of the Map, which is obtainable from The West India Committee, 14, Trinity Square, London, E.C.3, is as follows:—

	Price	Post Free U.K.	Post Free W. Indies, where.	Post Free Elsewhere.
Sheet	7/6	8/8	9/6	10/6
Mounted and folded ...	15/-	15/6	15/0	15/6
Mounted on rollers ...	12/6	14/-	19/-	*
* Canada 22/-; U.S.A. 25/-; elsewhere according to destination.				

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

THE EMPIRE EXHIBITION AND COLONIAL PRODUCE.

October 30th, 1922.

SIR,—A few days ago there appeared in the *Daily Telegraph* a letter from the Agent-General for Tasmania, having reference to the supply of Colonial products to the public at the forthcoming British Empire Exhibition.

You will, no doubt, remember the trouble we had at the Crystal Palace Colonial Exhibition in 1905, when the sale of Jamaica cigars was stopped, and we were only allowed to resume selling by payment of a considerable sum to the caterers, who, at the same time, refused to supply these cigars in their own refreshment rooms.

The British Empire Exhibition will be of no use to us whatever, unless we are able to sell our goods without any restrictions, and we shall be glad to hear that such arrangements have been made.

Yours truly, THE GOLOFINA TOBACCO CO.,
per R. KNIGHT.

[We entirely share the view expressed by Mr. R. Knight. To our mind, exhibitions are of very little value when exhibitors are precluded from selling or giving away samples of their goods when they desire to do so.—ED.]

THE WEST INDIAN PASSENGER LIST. Elders & Fyffes, Ltd.

Sailings to Bermuda, from Avonmouth, in R.M.S. Bayann, October 7th:—

- Miss B. M. H., Alexander, Mrs. R. W. Appleby, Miss E. K. S. Bartram, Mrs. W. J. Benson, P.R.G.S., Mrs. E. Block, Mrs. M. C. Bluck, Mr. & Mrs. M. S., Burrows, Mrs. H. D. Butterfield, Mrs. H. D. Buxterfield, Mrs. M. Champness, Miss K. Champness, Miss E. E. Checkley, Mrs. D. E. Cressay, Miss M. E. Ellis, Wright, Miss J. R. Eve, Mr. J. Finlay, Mrs. L. Fry, Mr. & Mrs. A. T., Gosling, Mr. & Mrs. E. H., Gosling

Sailings to Jamaica, from Avonmouth, in R.M.S. Coronado, October 23rd.

- Mr. Aar, Mrs. H. D. Ackerley, Mr. & Mrs. J. S., Anderson, Mr. & Mrs. F. W., Brunton, Mrs. M. A. Davis, Mrs. A. Dron, Miss A. M. Dron, Mr. F. R. Ellis, Mr. & Mrs. A. Fraser, Miss M. M. Fraser, Mr. J. J. Galloway, Mr. & Mrs. D. Mills, Miss I. L. Morrison, Mrs. M. L. Nightingale, Miss E. Nightingale, Miss J. A. Powell, Mr. J. Prentiss, Mr. & Mrs. K. T., Serrano, Mrs. E. C. Stillwell, Mr. E. G. Watson, Taylor, Major C. R. Williams, D.S.O., M.C.

Sailings to Jamaica, from Avonmouth, in s.s. Barranca, October 24th.

- Mr. W. F. Clark, Hon. R. Johnstone, Mr. & Mrs. E. G. Cooper, Dr. & Mrs. Leconte

Sailings to Jamaica, from Avonmouth, in R.M.S. Patuan, October 31st.

- Major The Hon. W. Bailey, Major The Hon. W. R. Bailey, D.S.O., Mrs. W. K. Bailey, Mr. & Mrs. W. Bowsher, Mr. H. Buckley, Miss W. Butler, Miss M. Cameron, Miss K. D. Coleman, Mrs. G. A. Coucher, Miss I. F. Dawson, Mrs. G. Dunning, Mr. & Mrs. H. F., Dencombe, Miss H. P. Dencombe, Miss N. Durban, Mrs. R. M. Edwards, Commander H. Evans, R.N., Mrs. E. J. Fabel, Miss L. R. Ford, Miss E. K. Francis, Lord & Lady Glanusk, Mrs. A. L. Grubance, Mr. & Mrs. C. W., Heywood, Mrs. A. R. Keeling, Miss A. F. Keeling, Mr. H. E. Kildersley, Sister Madeline, Lieut-Col. C. F. S., MacLavery, Miss F. M. MacLavery

Sailings to Jamaica, from Avonmouth, in R.M.S. Camito, November 4th:—

- Mr. J. G. Abson, Mr. H. A. Arthur, The Misses Arthur (2), Mr. & Mrs. E. L. Baza, Mr. G. Barrow, Mrs. E. M. Bigger, Mr. H. Courtney Brown, Mr. A. Cameron, The Misses Cameron (2), Miss M. L. F. Conyers, Mrs. E. Coward, Mr. N. M. Cunningham, Mrs. E. M. J. Da Costa, Commander W. Davent, R.N., Lady Daint, Mrs. & Miss Eileen, Mrs. M. M. Elce, Miss T. Frost, Mr. C. J. Gouze, Mr. & Mrs. M. Gonsalves, The Misses Gonsalves (2), Mr. C. H. Hamilton, Mr. V. Hanschell, Mrs. L. H. Haynes, Mr. C. W. Howatson, Mr. & Mrs. G. A. Jones, Mrs. P. N. H. Jones, Mr. R. L. Kingham, Mrs. A. C. Kirton, Mr. & Mrs. G. Laffite, Mrs. K. L. Lavington, Mrs. A. R. Liddell, Miss C. W. Livingstone, Mr. J. S. Lovell, Mrs. E. MacMillan, Miss V. Mallet-Paret, Miss M. McTear, Mr. F. W. Millson, Mr. J. F. Morrison, Mr. & Mrs. P. N., Mortimer, Mr. & Mrs. J. B. R., Marton, Miss M. C. Olive, Mr. L. A. P. O'Reilly, The Right Rev. Bishop Parry, Mr. Justice & Mrs. Poyser, Mr. P. Roane, The Misses Scott (2), Mr. W. P. Sharp, K.C., Mr. G. Stott, Mr. S. I. Thomas, Miss R. C. Thomas, Mr. A. Beeby Thompson, Mr. C. T. Trechman, Mr. H. B. Walcott, C.M.G., Mr. H. B. Walcott, Junr., Mr. & Mrs. W. F. Watson & family, Miss M. Wilson, Mr. & Mrs. M. Wray, Mr. C. G. Young

Home arrivals from West Indies, in s.s. Ingoma, October 20th.

- Mr. J. J. Allan, Mrs. & Miss R. Arrindell, Mr. A. D. Blake, Mrs. L. Barnard, Miss K. A. Conduit, Mr. L. Dalton, Mrs. & Miss D'Arcy, Irwin, Mr. A. C. Edwards, Mr. & Mrs. A. M., Edwards, Mr. & Mrs. A. E. Gay, Miss P. M. Gay, Mr. N. G. Hohenkerk, Mr. W. W. Harris, Mr. E. D. Laborde, Mr. & Mrs. J. McCowan and family, Mrs. L. L. Mignon, Mr. H. J. Muegher, Miss L. Laffite, Mrs. A. M. Rhodes, Mrs. M. C. Spence and family, The Misses Rodway (2), Mr. H. B. Weatherhead

Royal Netherlands West Indian Mail.

Sailings to West Indies from Dover, in s.s. Gipsydon, October 28th:—

- Miss J. Gouzeide, Mr. F. A. Lang, Mrs. E. A. Groll, Mr. & Mrs. D. G., Leacock, The Misses E. B., and E. N. Groll, Mr. E. Mison, Mr. & Mrs. J. G., McIntosh, Miss K. Hall, Mr. J. Cushing, Mr. & Mrs. A. Hangel, Smith, Mr. J. Morton, Mrs. M. Oliveira, Mr. & Mrs. E. L., Pilonais, Miss D. Henkson, Mr. W. Hogg, Mrs. A. G. Humberley, Miss L. W. Jackman, Miss D. E. Johnson, Mr. P. Kelly, Mr. & Mrs. A. S., Kershnan, Mrs. E. N. Kirke, Miss B. Lamy, Pollowais, Miss R. Pollowais, Mrs. L. Reynolds, Mr. & Mrs. H. Sedorff, Mr. S. W. Tuono, Mr. W. Tucker, Mr. E. A. Wallis, Mr. & Mrs. C. Wright

VISITORS FROM OVERSEAS.

- Hon. J. P. Auld, M.I.C.E., Mrs. S. Acker, Mr. F. E. W. G. Austin, Mrs. A. Bagot, Mr. P. A. Bartlett, Mr. A. K. Bell, Capt. W. Bewtling, M.B.E., Mr. James Brown, Mr. H. Gordon Burr, Miss F. Burton, Mr. M. P. Carmelto, Mr. G. O. Case, Mr. J. W. Cathcart, Lieut. Col. J. H. Collins, V.D., Dr. J. H. Cooke, B.A., M.B., Mr. F. A. Cora, Mr. & Mrs. Ivor C. Daniels, Mr. A. Cory Davies, Hon. H. Ferguson, Mr. Joseph N. Fox, Dr. W. H. Freis, Mr. A. H. Gay, Mr. R. A. Nugent Gordon, Mr. W. Gordon Gordon, Mr. Arc. Ithald Gordon, Mr. J. T. Gies, Mr. J. H. Haigh, Mr. H. Hainel-Smith, Mr. V. C. Hanchell, Sir J. B. Harrison, C.M.G., Mr. A. K. Petrie Hay, Mr. J. W. Hill, Mr. I. M. Hobson, Mr. P. W. Hopkinson, Mr. C. F. Huggins, G.R.M., Mr. W. P. Humphrey, Mr. H. L. Humphreys, Lt. J. Sir Hyde Hulson, K.C.M.G., Capt. Thomas H. Irving, Mr. H. L. Jeffers, Mr. H. Jason Jones, Capt. O. H. Keeling, Hon. E. D. Laborde, I.S.O., Mr. L. J. Lee, Mr. K. S. Longley, Hon. J. Chaslenor Lynch, Mr. Samuel Manning, Dr. H. Gray Masslan, Mr. J. C. McCoan, Mr. Hugh McLelland, Mr. J. C. McLelland, Mr. J. Morrison, Mr. Leslie W. Overt, Mr. C. D. Pile, Dr. B. Graham Pirgim, Mr. J. A. Robotham, P.S.M.T., Hon. W. J. Robson, Mr. G. T. Rock, Mr. T. A. Ryan, Mr. G. Hill & Sealy, Mr. H. B. Sealy, Dr. L. M. Skerries, Mr. Henry F. Smith, Mr. M. Howard Smith, Rev. W. R. Symons, Mr. David C. Vaz, J.P., Hon. W. A. S. Vickers, Hon. R. A. S. Warner, K.C., Mr. W. Harold Wright

WEST INDIA SECURITIES.

Table with columns for security names, denominations, and prices. Includes entries like Antigua, Barbados, British Guiana, Grenada, Jamaica, St. Lucia, Trinidad, The Colonial Bank, Royal Mail Steam Packet Co. Ordinary, and various oilfield securities.

PRODUCE MARKETS SUMMARY.

Telephone—
 Mincories 2300-2301.
 Telegrams—
 "Carib. London"



11, TRINITY SQUARE,
 LONDON, E.C.3.
 Nov. 7th, 1922.

BANK RATE. 3 per cent. as from July 12th.
EXCHANGE. Value of the £ Sterling.

	Oct. 24th	Nov. 7th		Oct. 24th	Nov. 7th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. ...	18 4	18 4	In Spain ...	1 3 0	1 3 2
" France ...	2 8 9	2 13 0	" Germany ...	900 0 0	143 0 0
" Belgium ...	2 13 3	2 17 3	" Austria ...	Nominal	Nominal
" Italy ...	4 5 4	4 5 4	" Holland ...	18 9	18 9

The intrinsic value of the gold sovereign is £1 1s. 6d.

SUGAR. The New York market has been quiet but firm during the fortnight, the last Summary's quotation of 5.53c. for duty-paid Cubans (equivalent to 8.75c. c.i.f., or about 3.00c. f.o.b.) remaining unchanged.

Futures yesterday closed firm at: December, 3.73c.; January, 3.42c.; March, 3.24c.; and May, 3.89c. The Home Market is unchanged and steady on the fortnight. Yesterday's values were: London Granulated, 51/4; American Granulated, 49/9 spot; West Indian Crystallised, 42/- to 45/- spot; White Mauritius, 47/3 to 47/9 spot; White Java, 48/- to 48/8. Cuban 96 deg. was again quoted nominally at 19/-, c.i.f.

Terminal market values were: White, December, 21/1; January, 21/1 1/2; February, 21/2. 96 deg. all nominal.

The West Indian sugar statistics in London on October 28th were:—

	1922.	1921.	1920.	
Imports ...	40,969	44,833	58,799	Tons
Deliveries ...	34,951	41,378	50,858	"
Stock ...	11,917	11,861	16,006	"

RUM. A fair business has been done in 1923 crop to arrive—approved marks—and prices are steady. The spot market remains quite dull.

The stocks in London on October 28th were:—

	1922	1921	1920	
Jamaica ...	13,319	11,127	10,885	Puns.
Demerara ...	18,841	17,548	15,838	"
Total of all kinds	39,920	38,583	38,691	"

CACAO is quiet, but steady. Further sales of fine Grenada have been made at 53/-. Trinidad is selling slowly at 65/- to 67/- for fair to good plantation. New crop to arrive is quoted at 51/- c. & f. Export business remains slow.

The stocks in London on October 28th were:—

	1922.	1921.	1920.	
Trinidad ...	4,943	20,709	38,856	Bags.
Grenada ...	12,319	16,588	27,000	"
Total of all kinds	78,107	124,905	249,788	"

ARROWROOT. The market is slow at the prices given in the last Summary.

BALATA. West Indian sheet is slow of sale. Spot is quoted at 3/1 and forward at 2/11 c.i.f.

COFFEE generally is active, and quotations show on the 2nd inst., 194 barrels of Blue Mountain were offered and sold at full rates, peaberry selling up to 184/-; 92 bags of ordinary Jamaica sold at about 70/-. The quotation for this description is now 70/- to 73/-.

COPRA is firm. There are buyers of West Indian f.m.s. at 425 10s., c.i.f. London or Hamburg.

COTTON generally is active, and quotations show an advance. West Indian Sea Island is unchanged at: medium 22d., fine 25d., and extra fine 33d.

HONEY. The market has a better tone, and by reason of the moderate values now ruling is attracting more attention. The prices given in last Summary are unchanged. There is more enquiry for Jamaica to arrive.

LIME PRODUCTS. **Lime Oil.** Some unimportant sales of Handpressed have been made at 9/- per lb. Distilled is firm at 2/- per lb. for good quality. **Lime Juice.** Concentrated is steady, with further business at 216 12s. Raw is inactive, with values nominal at 2/8 to 3/- for Jamaica, and 2/- to 2/6 for Dominica.

LOGWOOD continues slow, with business very limited. The nominal quotation is £8 per ton.

ORANGE OIL. Sweet is weak, with sellers asking 9/8, but less would be entertained. Bitter remains unchanged.

PETROLEUM. Production for October: Trinidad Leaseholds, Ltd., 11,250 tons; Apex (Trinidad) Oilfields, Ltd., 9,700 tons; United British Oilfields, Ltd., 5,194 tons.

Messrs. Edgar Tripp & Co. report that the shipment of Trinidad oil for the nine months has been as follows:—

	Galls.
During September ...	1,605,585
Shipped previously ...	31,685,800
Total from January 1st ...	33,291,385
To same date 1921 ...	28,649,180
" " " 1920 ...	28,440,056
" " " 1919 ...	38,016,307
" " " 1918 ...	30,691,939
" " " 1917 ...	81,232,214

SPICES. On the spot, **Pimento** is in fair request at 24d. per lb. Fair sales have been made to Hamburg at 17/- per cwt., c.i.f. There has been practically no enquiry for Jamaica **Ginger** for months past, and buyers are not inclined to pay the prices asked for parcels in second hands. Common leaf to small middling is quoted nominally at 150/- to 175/-, and boldish to bold 180/- to 190/- per cwt. West Indian **Nutmegs** are steady. Sound 40s. are quoted at 9d., and 110s. at 7 1/2d. **Mace** is easier, with fine pale quoted at 2/-, and broken fine pale at 1/8.

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
West Indies ...	Dover	Orange Nassau	Nov 11
B'has & J'aca ...	Liverpool	Electrician	" " 11
B. Honduras ...	Liverpool	Scientist	" " 11
West Indies ...	Plymouth	Perou	" " 13
Jamaica ...	Bristol	Matogua	" " 14
West Indies ...	London	Ingoma	" " 17
B'dos & T'dad ...	Liverpool	Norwegian	" " 18
Jamaica ...	Bristol	Changinola	" " 28
West Indies ...	Dover	Venezuela	Dec. 2
B'dos & T'dad ...	Liverpool	Candidate	" " 2
B'dos & T'dad ...	Bristol	Bayano	" " 2
West Indies ...	London	Speaker	" " 8
B'da, B'has, & Jamaica ...	Liverpool	Nubian	" " 9
West Indies ...	Plymouth	Mucoris	" " 11

B'da, B'has, J'a'cs & B. Honduras	Halifax	Canadian Fisher	Dec. 7
Bermuda ...	New York	Port Victoria	" " 8
West Indies ...	Halifax	Chaleur	" " 9
Jamaica ...	New York	Sixsola	" " 13
Bermuda ...	New York	Fort St. George	" " 13
West Indies ...	New York	Parina	" " 15
B. Honduras ...	New Orleans	"U.F. Co. Steamer"	" " 16
G'ada, T'dad & Demerara ...	New York	Mayaro	" " 19
Jamaica ...	New York	Carillo	" " 20
Bermuda ...	New York	Port Victoria	" " 20
West Indies ...	Halifax	Chignecto	" " 22
Bermuda ...	New York	Fort St. George	" " 23
Jamaica ...	New York	Proives	" " 25
West Indies ...	New York	Guiana	" " 29

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. The minimum subscription is £1 1s., or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.00). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
MEMBERS 2500-2201.
Telegram:
CARR, LONDON.



14, TRINITY SQUARE,
LONDON, E.C. 3.
November 21st, 1922

THE GENERAL ELECTION AND AFTER.

THE General Election is over, and for the first time for sixteen years a Conservative Government has been returned to power, and Mr. BONAR LAW has a working majority of 78 over all other parties. A feature of the Election was the increased number of Labour Members returned. This was not altogether contrary to expectations, and we must hope that at Westminster the representatives of Labour will awaken to the realisation of the importance of the Empire, even if only as a market for British goods. The little West Indian party in the old House of Commons has been sadly broken up. SIR WILLIAM MITCHELL-THOMSON, formerly a member of the Executive of THE WEST INDIA COMMITTEE, MR. F. A. MCQUISTEN, a valiant champion of sugar interests, and MR. ALFRED BIGLAND, a Member with broad Imperial views, who strove for the development of

British Guiana, have been defeated at the polls, whilst SIR OWEN PHILIPPS, who was always ready to ventilate the West Indian cause, and the Hon. GIDEON MURRAY did not seek re-election. Mr. MURRAY's temporary retirement from political life will be a special matter for regret to West Indians, for, like his prototype, the late SIR WILLIAM YOUNG, who also became a Member of Parliament after administering the Government of one of the Colonies which now form the Windward Islands, he was ever ready to voice the interests of the West Indies in Parliament. We are glad to know that his withdrawal from public life is only temporary, and that pending his return to political activity, the West Indies will continue to enjoy the advantage of his services as a Governor of The West Indian Agricultural College. But though the West Indies have lost several old friends in Parliament, there are, as we pointed out in a recent CIRCULAR, several Ministers who have evinced a kindly interest in the West Indian Colonies. To begin with, we may be pardoned, perhaps, for recalling again the brilliant speech on the Sugar Bounty question which MR. BONAR LAW delivered in 1903, and it will be recalled that it was MR. BONAR LAW who, as Secretary of State for the Colonies, was responsible for the establishment of The West Indian Contingent Committee during the war. Then it must be remembered that both the Hon. EDWARD WOOD and MR. DOUGLAS HOGG, K.C., have acquired a personal knowledge of the British West Indies, which should prove valuable when problems relating to those Colonies come up for discussion; whilst similarly the Hon. W. ORMSBY GORE enters upon his duties as Under-Secretary of State for the Colonies with a wider acquaintance with West Indian affairs than is possessed by many West Indians themselves, since there is hardly an island in the West Indies which he has not visited, which is more than can be said of many residents in those colonies in view of the high cost of travel. With regard to policy, West Indians will have noticed that the new Government are pledged not to introduce any system of tariff reform or new principle in our fiscal policy. Nevertheless, we may regard their return to power as an assurance that the policy of Imperial Preference, to the extent of a reduction in the duties in favour of Empire produce where articles are dutiable, will be maintained. With the reasonable certainty of the present Government remaining in power for four or five years, this should tend to create the confidence in the West Indies that is so greatly to be desired, and we may look forward to a period of peace and development at home from which the Empire generally should benefit.

THE WEST INDIES AND BRITISH TRADE.

IT is with much satisfaction that we are able to announce that MR. WILSON GOODE has been appointed His Majesty's Trade Commissioner for the British West Indies. MR. WILSON GOODE first gained his business experience with the Manchester Association of Importers and Exporters, and has lately been occupying important positions in Africa, and also at Washington, where he was Acting Commercial Councillor at the British Embassy. He has informed us that he is a firm believer in seeing every part of the territory with which he has to deal, and of investigating his problems on the spot, and we are glad to learn that though his headquarters will be in Trinidad, he will, before proceeding there, spend some little time in Jamaica and the Bahamas, which will be his first objective. The principal duties of His Majesty's Trade Commissioners are, as we understand it, to develop trade between the Mother Country and various parts of the Empire, the need for which was never greater than it is now, with Europe practically a closed door to British manufacturers. It was the policy of the late Government to endeavour to develop trade within the Empire, and we may be certain that it will equally be the aim of MR. HONOR LAW'S Ministry similarly to encourage the growth of commerce between the United Kingdom and the Dominions and Colonies overseas. This is a matter of mutual interest. The British manufacturers can draw their raw materials from the British Empire, but unless they can find markets for their finished products, their requirements must be small. Owing to the vagaries of the Exchanges, their trade with Europe has fallen off, and they have to look elsewhere for markets for their goods. When those markets are found, the demand for raw materials increases, and therefore it is to the interests of the Dominions and Colonies to help the British manufacturer to market his goods, which they could best do by using British in preference to foreign goods wherever they can do so. In this connection the West Indies can do their bit. No visitor to the West Indies returns to England without commenting on the extent to which foreign goods, mainly American, have displaced British in those markets. Let us give two instances. Throughout the islands and in British Guiana, American electric lighting plants are used, and the American motor-car manufacturers have secured such a stranglehold of the West Indian market that there is scarcely an English car to be seen throughout those Colonies—a fact on which SIR JULIAN ORDE, the Secretary of the Royal Automobile Club, commented on his return from a visit to Jamaica. This is very deplorable, for, whatever may be said to the contrary, it is certain that British lighting plants and motor-cars could be produced and delivered in the West Indies as cheaply as American, if an effort were made by the English manufacturers. At present the difference in price is not great, while in the matter of quality and durability the British goods are immeasurably superior to the American, and are in the long run cheaper, since they last longer, being infinitely better made and

finished. Recently the Governing Body of the West Indian Agricultural College, who have determined that all goods and materials supplied to the College shall be British, have sent out to St. Augustine an all-British electric lighting plant for the residences there, and it is hoped that this will furnish an object-lesson, and that, as a result, a trade will be developed in English domestic electric lighting sets, of which there are many on the market. But the British manufacturer, in respect of such goods, will have to study the local markets and take immediate steps to appoint agents throughout the West Indies, and, what is most important, furnish them with an adequate supply of spare parts. The Shipping Companies, too, will have to take their share in the movement by offering reasonable freight rates for British goods, whilst H.M. Trade Commissioner will no doubt impress upon British suppliers the advantages offered by the West Indies in the way of preference in the Customs duties, which amount in Trinidad, British Guiana, and Barbados, for example, to no less than 50 per cent. off the duties. In urging as we do, most strongly, the development of trade between this country and the West Indies, we do not wish to suggest for one moment that this should be at the expense of trade with Canada; but there are certain manufactured articles which Canada cannot supply while the United Kingdom can, and it is deplorable to see America, which has, by its new tariff, banged and barred the door against much West Indian produce, still regarding those British Colonies as a market for their manufactured goods. Apart altogether from other considerations—and the patriotic aspect of the question cannot be put on one side when we remember that but for the British Fleet the West Indian Colonies might have been ravaged and mulcted in heavy indemnities by the enemy during the recent war—it appears to us to be economically sound that where the West Indian Colonies come for their loans, they should also fill their requirements in respect of manufactured goods. It has always been the object of THE WEST INDIA COMMITTEE to endeavour to develop trade between the United Kingdom and the British West Indies, and it goes without saying that MR. WILSON GOODE, in his mission, will receive our fullest support.

THE WEST INDIA COMMITTEE.

The Executive of The West India Committee aim at securing an increase of membership of at least one thousand during the coming year. It should be pointed out that notwithstanding the greater advantages offered by the new premises at 14, Trinity Square, the minimum annual subscription remains at the pre-war figure of one guinea, or five dollars only, while a single payment of ten guineas (or \$50) at any time secures Life Membership. The Executive confidently hope that Members will help to strengthen the Committee by introducing suitable candidates for admission. Candidates, who must be British subjects, must be proposed by one and seconded by another member of The West India Committee.

SOME NOTES OF INTEREST.

"You catch cow by him horn, but man by him wud."

OLD B.W.I.'s will be glad to learn that The West India Committee have been informed that the British War and Victory medals for the British West Indies Regiment are now in course of preparation for issue.

THE penny banana should now be seen again in the greengrocers' shops. With this object, Mr. Roger Ackerley states in the *Banana Budget* that from November 18th the boat price for banana arrivals was reduced to £20 a ton.

MESSRS. MIRRLEES, BICKERTON & DAY, of Stockport, write to point out that in the account given in the CIRCULAR of September 14th (page 417) of the opening of the new waterworks pumping station at Cocorite, Port of Spain, it should have been stated that the engines used were of the full Diesel type.

THERE are three bay oil distilleries operating in St. Lucia, and bay rum is now being manufactured locally for the first time there. The leaves for the oil are gathered in the various districts by the peasantry, and sold by them to the distilleries. The rum for the bay rum is also produced locally. 860 gallons of bay oil were exported in 1921.

THE Panama Canal is proving a great success. For the first time in its history tolls have exceeded the million-dollar mark for three consecutive months. Similarly, the monthly cargo tonnage which was passed through the canal was over 1,000,000 tons during the same period. In September last no fewer than 240 ocean-going commercial vessels went through the canal.

THE President of Cuba has recently signed decrees permitting the importation of 6,000 labourers from the Antilles by two sugar concerns. The importers are required to furnish the Government with a \$20 bond for each labourer introduced to cover repatriation, if necessary. The companies are also required to return the labourers to their homes at the end of crop.

NO fewer than two hundred and sixty East Indian passengers are on board the *s.s. Hughli*, of James Nourse, Ltd., en route for Trinidad. It is probable that many of these returned immigrants are destined for British Guiana, and it is a satisfactory indication of the attractions which the West Indies and British Guiana offer to East Indians that these East Indians should have felt the call of the West so strong.

REFERRING to an article by a Mr. Digby in a well-known English journal, in which that ingenious writer gravely speaks of the inhabitants of the Island of Demerara partaking of a diet of spiced rats, the *Union Messenger* of St. Kitts very pro-

perly insists "that English writers on the West Indies should study their geography from larger maps, or beg information from the office of The West India Committee, 14, Trinity Square, E.C.3."

THE Service Bureau of The West India Committee is glad to supply information on all questions affecting the British West Indies. Very recently it found itself called upon to supply, for the purposes of a forthcoming stage production, authentic evidence of the costumes worn in the West Indies in 1724, and questions of diet would, similarly, not come amiss. As for "larger maps," there is the new map of the West Indies available for 12/6, or delivered to the West Indies for 19/-.

THE steady development of the St. Lucia lime industry is shown by the increase of crops during recent years. Expressed in terms of limes, these have been:—

1914	12,765 barrels	1918	45,323 barrels
1915	21,383 "	1919	42,537 "
1916	22,489 "	1920	42,508 "
1917	18,180 "	1921	45,978 "

THE cultivation of coco-nuts is also being extended, the produce being mainly converted into copra, of which 83,479 lbs. were shipped in 1921, as against 19,125 lbs. in 1920.

ON the subject of business methods in British Honduras, Trade Commissioner G. R. Stevens says, in the *Commercial Intelligence Journal* of the Canadian Department of Trade and Commerce, "The machinery of distribution in this Colony is relatively simple. A handful of old-established houses, of excellent business methods and unimpeachable commercial and financial repute, control the trade. There is little attempt to divide functions; they are importers, wholesalers, retailers, and in many cases commission agents as well."

A CORRESPONDENT complains that a telegraphic message sent to Grenada found its way to Granada in Spain, and asks how such mistakes can be obviated. The reply is simple. If senders of telegrams to Grenada, whether by wireless or cable, will mark their messages "via Bermuda" (for which words there is no charge), all reasonable possibility of mistake will be obviated. Our correspondent's complaint reminds us of the unfortunate predicament of a Commissioner of Turks Islands, when a letter addressed to him at "Grand Turk" was sent in error to Stamboul.

ON the subject of the next Cuban crop, the *American Sugar Bulletin* says that the acreage of ratoons from last crop should provide for at least 3,000,000 tons of sugar. The new plantings for the 1923 harvest were made, however, during the discouraging low-price period of 1921, and were restricted accordingly. It is possible, therefore, that they may not provide the million tons required to make the crop as large as the one just closed. On the other hand, the prospective good prices are a strong inducement to production, and the weather conditions have, on the whole, been favourable. An early start is looked for.

"COMMERCE REPORTS," the official organ of the United States Department of Commerce, under date October 30th, states that the reports from all parts of the world reveal, with a few exceptions, better commercial and industrial conditions. The situation in the Far East is better than it has been since 1820. In Western Europe, industrial production is increasing, and agriculture is showing satisfactory progress. With the exception of France and Germany, the important Western European nations have greatly strengthened their financial position, and in Eastern Europe the situation, although unhappy, is far less disheartening than it was a year ago.

* * *

THE Manufacturing Confectioners' Alliance are already on the warpath with regard to the sugar duties. During the General Election just concluded they issued pamphlets urging electors to vote for the candidate pledged to a reduction of this tax, and quoting Mr. Asquith's description of a sugar tax as "vicious in principle, burdensome in its incidence, and unequal in its operation between different classes and interests." West Indian sugar growers will not be disposed to quarrel with the idea of a reduced sugar duty, leading as it would to increased consumption, providing their Preference is properly safeguarded, but the reservation is important.

* * *

THE United States Shipping Board have ordered an investigation into the unaccountable shortage of fuel-oil in their s.s. *Southern Cross*. When that ship was off Bermuda, on her return voyage from Rio de Janeiro to New York, a shortage was discovered which resulted in her having to put in to replenish. The *Southern Cross*, under the new rules, is a dry ship, and it is claimed by the Prohibitionists, who draw an obvious inference, that the mysterious absence of propelling power came to light at a time when passengers had exhausted their private supplies of liquor. "No one denies," adds the *Times* correspondent, "that the passengers enjoyed their stay at Bermuda."

* * *

MR. MAURICE MALCOLM, of Knockalva, in Jamaica, is now, according to the *Journal* of the Jamaica Agricultural Society, planting and sowing the grass *Jarvisia montiflora* all over his estates in that island. Considerable attention has of late been drawn to the tick-destroying properties of this South American and African grass, the special property of which, in this connection, has been already referred to in a note in THE WEST INDIA COMMITTEE CIRCULAR (page 346). The result of Mr. Malcolm's experience with the grass will be awaited with interest, as if it supports the grass's reputation as a tick-destroyer, without any of the prejudicial characteristics possessed by many grasses, its general adoption in the West Indies would be of the greatest value to live stock breeders.

* * *

LECTURING on the "Growth of Empire" before the members of the Royal Colonial Institute, on November 14th, Rt. Hon. Sir Frederick Lugard, G.C.M.G., C.B., D.S.O., formerly Governor of

Nigeria, and a director of the Colonial Bank, referred to the lack of proportion in the Empire's populations, and the need for redistribution. He said that the density of the population of British India averaged about 233, while the more congested districts in Bengal reached a density of 578 per square mile. Meanwhile, there were tropical areas, such as British Guiana, with only 9.3 persons to the square mile. There was a case where Indian immigrants, with their wives, might find abundant land and healthy homes in the unpopulated highlands 3,000 feet above the sea—away from the negro colonies on the coast, so as to avoid undesirable racial miscegenation, or social and political friction between the two races. If the supervision of the administration of British Guiana, now vested in the Colonial Office, were transferred to the India Office and the Government of India, it might be that it might become a field for Indian settlement, and Indian susceptibilities regarding Kenya would, perhaps, be solved.

* * *

IN Australia the cultivation of bananas is looming largely in the fruit industry of the Commonwealth, and now British Guiana peasant farmers are taking up the question in that Colony, with the view of developing the industry on a definite and commercial basis. This is no new endeavour in the land of mud, shipping schemes having been formulated and attempts made to put them into execution from time to time since Captain Baker first started a West Indian banana export trade. As might be expected from the specially difficult conditions which obtained in those times in that Colony in connection with the extension of an industry of this description, these all proved abortive. Times have now, however, changed. The conditions necessary for the successful cultivation of the banana are now well known—Mr. Fawcett's valuable work on the subject gives particulars of them—and with the practical, scientific knowledge now available on the spot for the prospective growers, this part of the subject should be capable of successful treatment. There still remains the shipping problem, but with the increasing demand for bananas in the United Kingdom and Canada, its solution should follow almost automatically on the production of the supply.

MILK PUNCH.—Steep the rinds of 40 large limes (which ought to give nearly a quart of juice), peeled very thin, in 2 quarts of old rum or brandy. Cover this closely for 2 days, and the third day squeeze the juice of the limes on 8lbs. of white sugar, adding 6 quarts of old rum, 10 quarts of boiling water, and 4 quarts of boiling milk; mix the whole well and cover closely for 4 or 5 hours. When cool, strain through a jelly bag of 3 layers of flannel, strain again until quite clear, then bottle and cork it. This will keep for some months. If liked, 2 grated nutmegs and 2 ozs. green tea may be added.

West Indian recipes for publication in this column will be welcomed by the Editor.

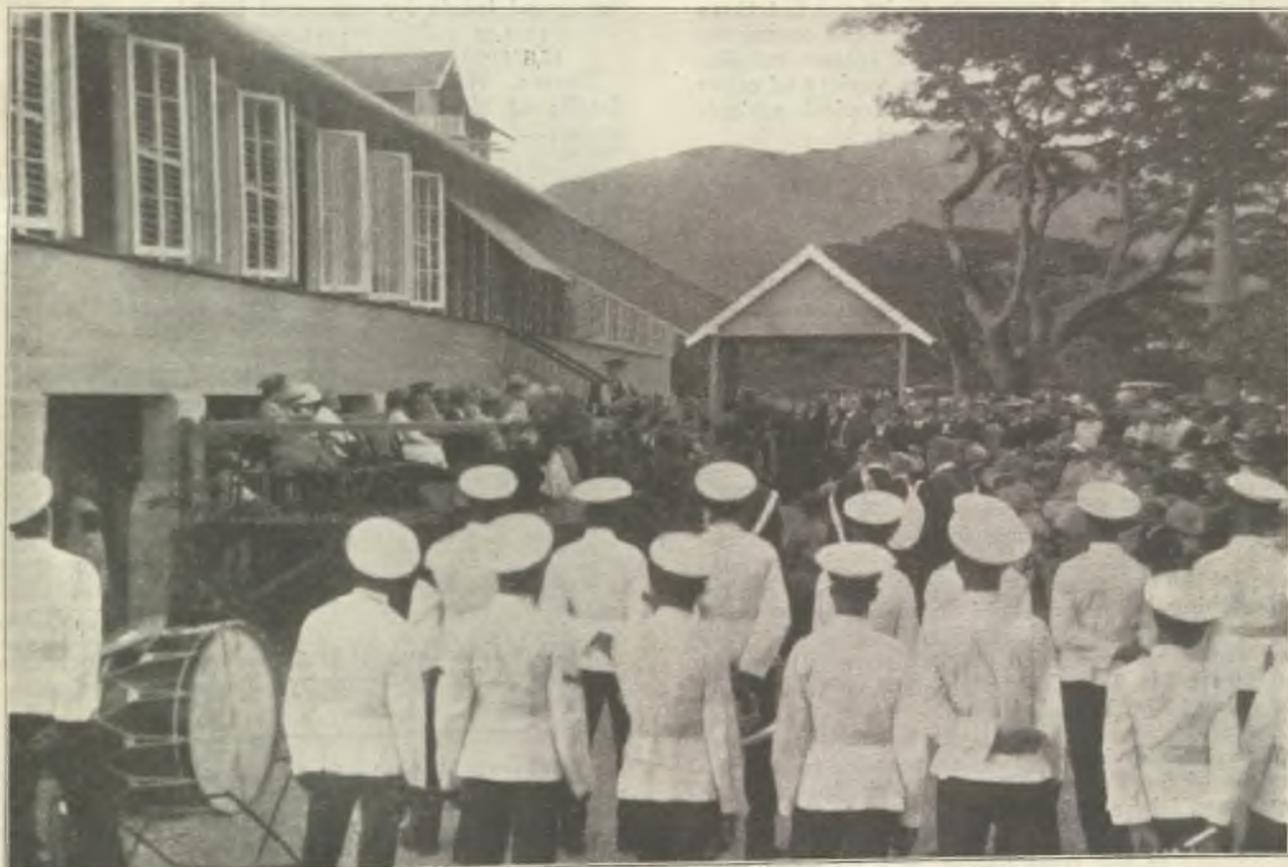
THE AGRICULTURAL COLLEGE.

Building Opened by Sir Samuel Wilson.

The West Indian Agricultural College, in its temporary building at St. Augustine, Trinidad, was formally opened on October 16th by His Excellency Sir Samuel Wilson, Governor of Trinidad and Tobago, in the presence of a large and distinguished gathering of invited guests, who included Lady Wilson, the Archbishop of Port of Spain, Lady

support accorded to its recommendations by the West Indian colonies. In the short space of three years arrangements had progressed to such an extent that a provisional College building was now available, and residences had been erected, with the result that the College was now able to begin operations.

Sir Francis Watts, the Principal, who wore academic robes, then delivered his presidential address, in the course of which he reviewed some of the reasons why the College was needed. The busi-



The Opening of the West Indian Agricultural College.

Sir Francis Watts, Principal, is here shown delivering his inaugural address just before His Excellency Sir Samuel Wilson, Governor of Trinidad and Tobago, declared the building open.

Watts, Hon. T. A. V. Best, C.M.G., C.B.E., Colonial Secretary, and Miss Best, Mrs. Bushe, Venerable Archdeacon A. H. Hombersley, Hon. A. G. Bell, C.M.G., Director of Public Works, Colonel G. H. May, V.D., Inspector-General of Constabulary, Mr. W. G. Freeman, B.Sc., F.L.S., Director of Agriculture, and Mrs. Freeman, Mr. W. S. Barnardo, Chairman of the Agricultural Society, Mr. Justice G. C. Deane and Mrs. Deane, Mr. L. de Verteuil, and Captain Baker, A.D.C.

A full report of the proceedings was published in the *Trinidad Guardian* and *Port of Spain Gazette* of the following day, from which it would appear that at the outset the Hon. R. Gervase Bushe, C.M.G., recounted the steps which had led to the formation of the College, referring to the Committee appointed by Lord Milner in 1919, and to the

ness of agriculture was daily increasing in complexity, while competition, accentuated by ease and rapidity of communication, reduced the margin of profit and diminished the chances of any colony creating and maintaining favourable conditions leading to large profits from the production of any particular commodity. In these circumstances not only success, but the means of earning a livelihood, depended on the carrying on of work with the highest degree of skill and precision and with the minimum of material loss and effort. Skill and precision implied knowledge, and it was the functions of institutions like the College to collect that knowledge and impart it to their students. But it might be thought that institutions of this kind existed widely; they were to be found in abundance in every large country, and they were now asso-

ciated with all the principal seats of learning. Why, then, should it be necessary to create a special College of this nature in the West Indies?

The existing Colleges were mostly concerned with agriculture as carried on in tropical climates; there were few, and none were readily available to West Indians, which dealt directly with tropical matters. The production of tropical crops was of vast and fundamental importance not only to those who lived in the tropics, but to the Empire at large; tropical crops entered largely into the daily life and commerce of the dwellers in the great countries situated in temperate regions. Let them think of the part played in daily life and commerce by such things as sugar, cocoa, tea, cotton, rubber, many oils and spices, and a great variety of other products, and the importance of tropical agriculture to the Empire became apparent.

At the conclusion of his address, Sir Francis Watts handed to Sir Samuel Wilson a specially fashioned silver key, and invited His Excellency to open the building.

Sir Samuel Wilson then addressed the company, saying that he felt honoured that it should have fallen to his lot to open the College. He regarded that day as a most important day, not only to the West Indies, but to the whole British Empire, because the opening of the institution would give a means of training British students in the science of tropical agriculture. He could not but feel that in the long run it would be the means of placing British Possessions and Colonies in a better position, perhaps, than they were in to-day to compete in selling tropical products in the markets of the world. Moreover, it was hoped that students would come to the College from all parts of the Empire, and nothing but good could accrue from the relations which would be formed and from the ideas that would be exchanged. They were all proud and pleased in Trinidad to think that the College was going to be in their island.

Proceeding, he congratulated the students of the College on it having been found possible to get the services of Sir Francis Watts as Principal. "As you know," he continued, "Sir Francis Watts has for many years been the Imperial Commissioner for Agriculture in the West Indies, and I do not suppose that there is any other living man who has greater experience of the subjects that are going to be taught in this College. He has also surrounded himself with a staff of expert Professors who are all well versed in the subjects they are going to teach, and if any of the students of this College do not learn everything there is to learn about tropical agriculture, I am quite sure it would not be because they have not had the opportunity of doing so. I should also like to congratulate Sir Francis Watts and his son on the rapidity with which they have got this building ready. Three or four months ago, when I came down here with Sir Francis, I found one or two old tumble-down buildings; but when I came here some weeks later I found this beautiful building which I am now going to open. Before I do so I would like to welcome, on behalf of the people of this colony, Sir Francis Watts and his staff to our midst (cheers), and to
(Concluded at foot of next column.)

THE WORLD'S SUGAR CROPS.

Messrs. Willett & Gray publish in their Weekly Statistical Trade Journal for October 26th their preliminary estimates of the sugar crops of the world. They place the total cane crops for 1922-23 at 12,448,500 tons, as against 12,465,505 tons for 1921-22, and 12,070,331 tons for 1920-21; and the beet crops at 5,375,500 tons, as against 4,996,168 tons for 1921-22, and 4,675,807 tons for 1920-21, the grand totals for cane and beet being:—

	1922-23	1921-22	1920-21
	17,824,000	17,461,668	16,746,138

Messrs. Willett and Gray give the following details of the American and West Indian cane crops:—

	Harvesting Period	Tons		
		1922-23	1921-22	1920-21
United States—Louisiana	Oct.-Jan.	215,000	289,669	150,396
Texas	Oct.-Jan.	1,000	2,920	6,234
Porto Rico	Jan.-June	400,000	385,000	429,494
Hawaiian Islands	Nov.-July	490,000	490,000	526,352
Virgin Islands, W.I.	Jan.-June	6,000	5,000	4,500
Cuba	Dec.-June	4,000,000	3,995,387	3,936,040
British West Indies—Trinidad	Jan.-June	55,000	52,000	54,933
Bahamas	Jan.-June	23,000	36,500	21,817
Jamaica	Jan.-June	39,000	42,167	39,960
Antigua	Feb.-July	12,000	9,620	11,320
St. Kitts	Feb.-Aug.	15,000	8,426	6,060
Other British West Indies	Jan.-June	10,000	9,238	3,600
French West Indies—Martinique	Jan.-July	19,700	18,329	21,034
Guadeloupe	Jan.-July	31,000	32,000	25,426
San Domingo	Jan.-June	200,000	225,000	183,546
Haiti	Dec.-June	12,000	12,283	5,625
Mexico	Dec.-June	120,000	119,800	115,000
Central America—Guatemala	Jan.-June	20,000	19,090	17,523
Other Central America	Jan.-June	28,000	27,972	35,692
So. America—Demerara, Oct.-Dec. & May-June		109,000	108,370	96,158
Surinam	Oct.-Jan.	11,000	10,000	9,304
Venezuela	Oct.-June	16,000	16,000	15,000
Ecuador	Oct.-Feb.	8,000	7,000	6,978
Peru	Jan.-Dec.	340,000	325,000	344,024
Argentina	May-Nov.	230,000	178,000	252,188
Brazil	Oct.-Feb.	340,000	325,000	310,000
Total in America		6,721,700	6,747,401	6,610,764

In the Continental beet crops the principal increases are looked for in Germany, France, and Czechoslovakia.

say how very pleased we are to have them here. I should also like to say that so long as I am Governor of this colony the people responsible for the administration of this College can rely on my support to assist them in every way towards the success of this work." The Governor then unlocked the door and declared the West Indian Agricultural College open.

The guests were then entertained at tea, and the remainder of the afternoon was spent in inspecting the College building and listening to a programme of music rendered by the Constabulary band under Lieutenant A. L. Wallace.

The visitors were shown the classrooms and laboratories by the members of the Professorial Staff, namely, Professors H. A. Ballou, M.Sc.; J. S. Dash, B.S.A.; S. F. Ashby, B.Sc.; F. Hardy, M.A., Dip.Agr.; F. G. Mason, M.A., Sc.B., Agr.B.; W. B. Dunlop, and Mr. A. G. Howell (Chief Clerk and Registrar) and Mr. L. Corbin (Assistant Clerk).

The students present included Mr. A. Moody Stuart, B.A., Mr. C. B. R. King, M.A., Mr. F. O. Gordon, Mr. B. G. Montserin, Mr. V. I. Mulloan, Mr. J. S. Clerk, Mr. C. C. Littlepage, and Mr. H. R. Ryan.

THE RECORD CUBAN CROP.

How it was Financed.

Mr. Charles B. Hosmer, the American Vice-Consul at Havana, has explained the arrangements successfully carried out for financing the Cuban sugar crop, which resulted in an output of 3,936,040 tons of sugar.

The unprecedented decline in the sugar market in 1920, which culminated in the Cuban moratorium of October, was followed, he writes, by such a severe business depression that a number of important banking institutions of the country were forced to liquidate. In fact, financial conditions in Cuba became so unsatisfactory that during 1921 it was freely predicted that the sugar crop for 1921-22 would be materially below normal because of the apparent impossibility of obtaining the financial support required for agricultural and manufacturing operations.

American and Canadian banks with branches in different parts of the island found that many of the sugar centrals were not in a condition to warrant the extension of credit to them in the usual way, and that a few were so disorganised as to be unable to operate without supervision as well. These banks also discovered, after some experimenting, that it was neither expedient nor practical for them to intervene directly in the running of these plants, and they therefore organised separate corporations to carry on this work for them by developing and maintaining trained organisations to administer the funds needed for operating expenses and effectively to safeguard the interests of the banks by supervising the production. It has been the policy of the operating companies to permit the owning companies to carry on as much of this work as possible and to make their intervention one of helpfulness rather than of interference.

Two banks that were particularly active in this work of crop financing enabled 25 mills to operate during the grinding season, thus materially increasing Cuba's 1921-22 sugar crop.

It is not believed that these operating companies will become permanent organisations, as it seems to be the purpose of the banks to withdraw from active participation in the affairs of the mills as soon as practicable. At least one corporation has been organised, however, independent of the banks, but backed by strong financial interests, with the object of being in a position to purchase the equity of the owners of any of the sugar centrals in Cuba that cannot overcome their difficulties. Present conditions indicate that there will be few, if any, cases of this kind, provided that the sugar market continues reasonably strong. It is now generally accepted that the Cuban sugar crop for 1921-22 will amount to approximately 3,800,000 tons, which is virtually a normal crop.

VISITORS to The West India Committee Rooms at 14, Trinity Square, during the past fortnight have included:—

His Excellency Sir Eyre Hutson, K.C.M.G., Lieut.-Colonel J. H. Collins, Mr. W. R. Dunlop, Mr. H. Crum Ewing, Mr. Wilson Goode, Mr. Samuel Manning, Dr. G. H. Masson, and Mr. C. A. Poole.

TRINIDAD'S SUGAR.

The St. Madeleine Crop Figures.

The *St. Madeleine Review*—no longer, alas! the Quarterly—gives some interesting facts in its first half-yearly number, just to hand, relative to the Trinidad Usine's 1922 crop, which is described as one of the most satisfactory in the history of the plant.

The original estimate, made in July, 1921, was based on 180,000 tons of cane or 18,000 tons of sugar, reckoning ten tons of cane per ton of sugar. However, owing to some fields being cut late, the previous crop thus affecting the growth of ratoons, and the lack of proper attention to others, due to the wholesale curtailment of expenditure, it was necessary in January to reduce this estimate to 167,000 tons of cane or 16,700 tons of sugar approximately.

The quantity actually ground was 171,896 tons of cane, and, thanks to better milling and a higher sucrose content than in the few previous years, 17,880 tons of sugar were realised, or only 120 tons short of the original estimate. This output was made up as follows:—

16,750 tons of Greys.
1,084 tons of Washed Greys.
46 tons of Mascuite.
<hr/>
17,880 tons.

The whole crop was disposed of, the destinations being as follows:—

Montreal	...	...	13,550 tons or 75.8 per cent.
Halifax	...	...	2,200 tons or 12.3 per cent.
St. John	...	...	1,000 tons or 5.6 per cent.
Local	...	...	1,084 tons or 6.1 per cent.
Mascuite on Hand	...	...	46 tons or .2 per cent.
			<hr/>
			100.0 per cent.

Of the canes ground, 76,345 tons were grown on the St. Madeleine estates and 95,551 tons by farmers. The yield on estates averaged 18.28 tons of cane per acre, while 6,723 different parties supplied the farmers' quota, making an average of 14.2 tons of cane per individual.

From a cane-farming point of view, the record is less satisfactory. Local conditions generally operated strongly in the direction of discouraging many farmers from working their lands, these factors being especially want of funds due to heavy debts, late cutting at the previous crops, and uncertainty as to the future of the sugar industry, which was not allayed by the liquidation of two neighbouring estates.

ACCORDING to an old manuscript, the average cost of sugar cultivation in Barbados was 11s. 2d. per cwt. from 1823 to 1834 and 16s. 4d. per cwt. from 1835 to 1846.

INDUSTRIAL ALCOHOL.

What Cuba is Doing.

It is a matter of opinion, says H.M. Charge d'Affaires at Havana, in an official report to the Board of Trade, whether in the future Cuban mill owners may not find it more profitable to convert a great part of the lower grade materials in their factories directly into alcohol instead of into sugar. At the present time only two mills are known to have distilled alcohol from the final molasses or waste material. It is difficult to estimate what the yield of alcohol from these molasses should be, as so much depends on the methods of distillation, although it is generally agreed that very superior operation would produce a gallon of alcohol to every two of molasses of 58 per cent. fermentable sugars; whilst with the indifferent methods usually employed it would require three gallons of molasses to produce one gallon of 95 per cent. alcohol.

In the 1919-20 crop of three and three-quarter million tons of sugar, the production of final molasses amounted to over one hundred and eighty-five million gallons. This output of molasses could be made to yield some sixty to ninety million gallons of alcohol.

The Province of Matanzas, whose capital is Cardenas, is by far the most important as regards production of alcohol from molasses. The two largest distilleries in Cardenas possess storage tanks with a capacity of 2,880,000 gallons and 2,660,000 gallons respectively. Another company has tanks totalling 1,200,000 gallons capacity, and there are two smaller distilleries with 175,000 gallons each. The two leading distilleries were working at high pressure during the war, but this production has since decreased by 25 per cent. The local consumption has hitherto been less than the production, a fact which forced the producers to find foreign markets, but recently the local consumption has increased very largely owing to the "motor spirit" so much used now by automobiles. Efforts are being made to increase the consumption of the spirit by using it for cooking, lighting, and ventilating apparatus. One gallon of molasses produced one litre of 42 deg. alcohol.

In 1914 experiments made at Havana with denatured alcohol as motor fuel gave fairly satisfactory results, especially in the case of Ford cars. During the last two or three months the greater part of the vehicles that ply for hire in the streets of Havana have been using denatured alcohol as fuel with results that would appear to promise well for its continuance.

There is evidently a time coming (the Report continues) when the maximum production of oil will be reached. So far the demand has gained on the supply so steadily as to force the price of petrol upward. The demand is still increasing, and as the supply will relatively be less than it is now it may be expected that alcohol will gradually supplant petrol wherever local price conditions warrant. Molasses, being the cheapest source of supply, will show the greater profit to the producer of alcohol, and its disposal in this manner cannot fail to

(Continued at foot of next column.)

THE ANGOSTURA CASE.

Charges of Corruption Dismissed.

At Bow Street Police Court on November 2nd, Mr. Graham Campbell delivered his judgment in the case in which Harold Edwin Perks, formerly secretary of Angostura Bitters, Limited, and Alexander Goff, stockbroker, of Old Broad Street, were summoned to answer a charge of corruptly agreeing to give or offer a gift or consideration to Mr. S. A. Tansley, senior accountant in the office of the Public Trustee, as an inducement or reward for showing them favour.

According to the prosecution, as reported in *The Times*, the Public Trustee, in August, had for disposal nine thousand Angostura shares, which had come into his hands under the Trading with the Enemy Act. Mr. Tansley called on Mr. Perks to inquire if his company would be interested in the purchase of some of them, and it was alleged that Mr. Perks and Mr. Goff offered from 10s. to 11s. per share, at the same time promising Mr. Tansley a commission of 10 per cent. on any profit made out of the deal. The defence was that 11s. was a fair price for the shares, and that the offer of commission did not bear the interpretation placed upon it by the prosecution.

The magistrate said he had come to the conclusion that the evidence adduced by the prosecution was not sufficient to support the charge. Both the defendants were men of unblemished reputation. Mr. Goff was a member of a well-known firm of stockbrokers, and it was in the highest degree improbable that he would run the risk of offering a bribe to an official in a public department. It had been established that the offer of 11s. made for the shares was a fair price, and he could not help feeling that there must have been some misunderstanding—though no doubt perfectly honest—by Mr. Tansley of the proposal put forward to him by Mr. Perks. He accepted Mr. Perks' evidence that his offer of 10 per cent. was intended, not for Mr. Tansley personally, but for the Public Trustee's Department, which, of course, was entitled, under the Fees Order, to commission just as any ordinary banking institution was. The summons was dismissed.

become an increasingly profitable adjunct to the sugar business. It is estimated that the cost per gallon, if fuel is produced by a plant with capacity for utilising the daily molasses output of a 3,000-ton raw sugar plant, would be 12.55 cents per gallon, whilst it is considered that such fuel would command a ready sale at 20 cents per gallon. This plant would produce approximately 7,200 gallons of motor fuel per 24-hour day.

The export of natural alcohol is free from any tax, but a warrant equal to the value of the goods is required, when carried in sailing vessels, to avoid fraudulent transshipments. The Cardenas distilleries export most of their production to the United Kingdom, South America and Morocco. In 1921 Germany appeared as a customer and purchased 7,000 casks of 410 litres each. The Canary Islands take from 400 to 500 pipes of 500 litres monthly, and Uruguay 800 to 400 pipes monthly.

A field lies open for the British manufacturer to produce apparatus suitable for use with alcohol for various purposes, lamps, cooking apparatus, etc.

GEOLOGY AND COMMERCE.

Dominica's Needs and Difficulties.

(BY AN OCCASIONAL CORRESPONDENT.)

Mr. Kenneth W. Earle followed up his report on the geology of St. Kitts-Nevis and Anguilla with one on Dominica and the Virgin Islands.

Dealing with Dominica, he points out that it is not the place in such a report to deplore the topographical, climatic, and financial conditions which render any form of development absolutely impossible in Dominica. Nevertheless, he urges that the coastal steamer service round the island should be restored whatever the cost may be.

Mr. Earle, whose work necessarily took him off the beaten track, naturally found his task greatly impeded by natural conditions, the headlands being all impassable by the beach, and almost the whole of the interior being clad in virgin forest to a large extent unknown and quite untracked, whilst the upper reaches of some of the rivers, such as the Layou, the largest, have never been accurately mapped.

Geologically, Mr. Earle thinks, the island does not call for lengthy description, as it does not differ materially from St. Kitts. An interesting exception, however, is to be found in the widespread occurrence of bright red ferruginous clay in the areas of most intense rainfall, affording a marked comparison with the dry, friable, sandy soils of St. Kitts.

Dominica is the only island of the Leeward Group which shows any noticeable volcanic activity at the present day. This activity displays itself in the famous Boiling Lake, and in numerous solfataras throughout the island. Although there is no record of volcanic outbursts in the Leeward Islands in historical times, there is no doubt, Mr. Earle thinks, that these solfataras act as safety valves to volcanoes which can hardly be considered entirely extinct. A curious fact in this connexion is that the St. Pierre catastrophe of 1902 met with no sympathetic disturbance in the Grand Soufrière of Dominica, whereas St. Vincent, very much farther away from Martinique, was in eruption at the same time.

Mr. Earle goes on to explain that Dominica is not the place where one would expect to find valuable mineral resources. The pitch (or manjak) occurring on the Windward Coast he considers no indication whatever of petroliferous rocks occurring either in Dominica, or sufficiently close to the coast to be workable. Deposits of kaolin appear to be very rare, Mr. Earle not seeing one anywhere that was sufficiently large to work. The general composition of the island's soils resembles markedly that of the typical lacteritic soils, such as occur in India. They are undoubtedly valuable for pottery, an industry that was formerly carried on at Portsmouth, and it is a pity that with such useful material at hand no effort is made to replace the unsightly and easily corroded galvanized iron roofs and wooden walls of the buildings by brick and tile. At Coffee, on the Layou River, a very ochre-

ous earth is mixed with water and lime to form a red waterproofing paint.

On his arrival in Dominica in 1921, Mr. Earle was told that small quantities of gold and silver had been discovered at Riversdale. He accordingly collected samples of river washings from various localities at varying altitudes. These have been assayed, and are sufficient to indicate that no gold or silver is ever likely to be obtainable in Dominica in paying quantities. Sulphur, gypsum, and alum can all be obtained in small quantities at the various soufrières.

COPPER IN THE VIRGIN ISLANDS.

In his report on the Virgin Islands, Mr. Earle records the interesting fact that whilst the islands must have been originally united into one land mass, subsequently eroded by the sea, at present the continual growth and spreading out of living coral reefs is tending to unite adjacent islands, in some cases the process being actually complete.

The mineral resources of the Presidency consist of copper, chalcopyrite, molybdenite, iron pyrites, haematite, and a little silver and graphite. Copper would appear to offer the best opportunities for exploitation, and it is interesting to note that during Mr. Earle's stay in the Presidency a new lease was signed for the working of the old copper mines at Virgin Gorda. Disappointing as Mr. Earle feels that his researches into the economic resources of the islands have been, he thinks that at some future time discoveries of ore may be found in localities which were inaccessible to him, and he hopes that the new company founded to work the Virgin Gorda mine will prove an important source of revenue to a Colony whose total trade is only a tithe of what it was a hundred years ago.

A PHENOMENON EXPLAINED

May's Mists not May Dust.

The phenomenon believed to be "May Dust," which was observed throughout the Windward and Leeward Islands, the Virgin Islands and Tobago, as well as in Jamaica and Porto Rico in the middle of May this year, was mainly attributed to volcanic action by various correspondents in *The West India Committee Circular*, who were struck by the resemblance which the haze bore to that noticed in Barbados in 1902 during the eruption of the St. Vincent Soufrière. Another explanation, however, is given by Mr. Oliver L. Fassig, the Meteorologist in charge of Porto Rico Station, in his useful series of "Climatological Data." Mr. Fassig says that a microscopical examination, while not revealing the source of the dust, makes it certain that it is not of volcanic origin. The most probable explanation, he thinks, for the wide extent of the haze is that great quantities of dust were carried aloft during one of the severe dust storms of the African deserts and then carried westward by the trade winds.

*No. 619, June 2, page 294, and succeeding issues.

COST OF SUGAR PRODUCTION.**Interesting Figures for Jamaica.**

Statements in the prospectus of the Mortgage Company of Jamaica, Ltd., to which reference was made in last issue of the CIRCULAR, throw an interesting light on the cost of sugar production in Jamaica. In respect of last season, the working results of the three estates concerned were set out as follows:—

KRELLING-LINDO, LTD. (about 1,491 acres under cane).

	£	s.	d.	£
Sugar.—Price realised last year per ton of sugar	15	0	0	
Estimated cost of production	10	14	6	
Net profit per ton	4	5	6	

Profit on 9,615 tons at £4 5s. 6d. per ton

41,104

Bananas.—Estimated profit on Bananas planted and to be planted based on realised profit last year of £27 14s. 8d. per acre, against a profit per acre of £47 12s. 6d. for 1919-20, and £36 19s. 3d. for 1920-21.

Cocoanuts.—Estimated profit

34,993
407

MONYMUSK CENTRAL, LTD. (1,266 acres under cane).

	£	s.	d.	£
Sugar.—Price realised last year per ton of sugar	15	12	0	
Estimated cost of production	14	0	0	
Net profit per ton	1	12	0	

Profit on 3,878 tons at £1 12s. per ton

6,204

APPLETON CENTRAL, LTD. (462 acres under cane or available for 1924 replant).

	£	s.	d.	£
Sugar.—Price realised last year per ton of sugar	16	4	0	
Estimated cost of production	13	13	3	
Net profit per ton	2	10	9	

Profit on 1,366 tons at £2 10s. 9d. per ton

3,466

£86,174

It was subsequently stated in the Press that above estimates were those of the Board based upon costs of production ascertained by Messrs. Price, Waterhouse & Co.

Two principal features of the Board of Trade Returns for October, as regards West Indian produce, are the maintained consumption of sugar, which now stands at 1,356,159 tons for the ten months, which is at the rate of 1,627,000 tons per annum, and the increased consumption of cacao, 841,785 cwts. having been taken out of bond for this purpose during January-October this year, as against 759,848 cwts. during the same period last year.

THE MAP OF THE WEST INDIES.

Since the CIRCULAR last went to press there has been a continuous demand for copies of The West India Committee's Map of the West Indies. Among the applicants for impressions have been the Governments of Barbados and Trinidad and Tobago, thus bringing nearer the consummation of the hope that the Map may find a place on the walls of all Government and business offices, schools, hotels, and institutions in the British West Indies.

The Map should prove a valuable factor towards bringing about a better understanding of the West Indian Colonies, not only among themselves, but also among the "men in the street."

That the Map is appreciated has been demonstrated by many complimentary letters. Only recently the Colonial Postmaster of Jamaica—who had seen a copy hanging in the Institute—was so struck by its appearance and utility that he promptly ordered a copy for his own office.

Members and others who have not yet ordered their copy are advised to do so at once, as the number available is rapidly diminishing.

The price of the Map, which is obtainable from The West India Committee, 14, Trinity Square, London, E.C.4, is as follows:—

	Price	Post Free U.K.	Post Free W. Indies.	Post Free Elsewhere.
Sheet	7/6	8/6	9/6	10/6
Mounted and folded	15/-	15/6	15/6	15/6
Mounted on rollers	12/6	14/-	19/-	*

* Canada 22/-; U.S.A. 25/-; elsewhere according to destination.

COLONIAL CIVIL SERVICE.

The following appointments affecting the British West Indies were made by the Secretary of State for the Colonies during the month ending the 10th November:—

Mr. W. H. F. Sidley, Depot Inspector, Jamaica Constabulary.

Mr. W. L. Barnett, B.A., B.Sc., A.L.C., Deputy Island Chemist, Jamaica.

Lieut. R. Ramsay, M.C., Staff Officer, Local Forces, British Guiana.

Mr. E. Edginton, Postmaster-General, Trinidad.

Mr. B. J. Bedell (late R.N.), Asst. Master, Queen's Royal College, Trinidad.

Lieut. R. Tottenham, Sub-Inspector of Police, Trinidad.

Mr. R. Hargrove, Commissioner, Virgin Islands.

Miss S. M. Elsdon, Nurse-Matron, Cottage Hospital, Tortola, Virgin Islands.

SIR PETER MACKIE's suggestion that British Guiana and British Honduras should be given to America, which is referred to in next column, provoked a reply (which appeared in the *Financial News* of November 15th, and was, happily for Sir Peter, "edited") from the Secretary of The West India Committee, who pointed out that throughout the West Indies that gentleman's proposal would be regarded as an impertinence.

THE MAINLAND COLONIES.

Annexation Proposal Scotched.

The bogey of American annexation—this time, to be sure, in a somewhat modified form—having turned up again, the following timely letter from Mr. Lawrence A. Achong was published in the *Financial News* of November 16th, 1922:—

Sir,—In his letter dealing with the General Election, which appeared in your issue of the 13th inst., Sir Peter J. Mackie, Bart., the well-known Scottish distiller, showed very scant regard for the peoples of British Guiana and Honduras when he suggested that the British Empire should "give America British Guiana and Honduras in payment of the American debt."

This gentleman says: "They are of very little use to us; we have never developed them." In saying this the good baronet proves that, like the majority of Englishmen, he is very ignorant of the value of the Empire's Colonial possessions. Why is British Guiana of very little use to the Empire—and why has England never developed it? Simply because those whose business it should be to know everything about these overseas possessions know absolutely nothing about them. Englishmen, strange as it may seem, prefer to attempt to develop countries like Brazil, Peru, and other South American Republics and countries in which they can never be anything more than strangers, instead of their own; this they do by the large investments they make in all sorts of enterprises, regardless of the instability of Government.

British Guiana is extremely rich in minerals. Mica, platinum, copper, scheelite, Bauxite, gold and diamonds are all to be found in this country. They only await proper development on sound business lines to become paying on a basis equivalent to the best British investment. The diamond industry of British Guiana, which in 1919 yielded 16,000 carats, increased in 1920 to 40,000 carats, and in 1921 to 102,000 carats valued at \$1,643,698.00. Representatives of American interests in that Colony have not been slow in inviting American capital to the country. Great Britain, however, is apparently too soundly asleep to be disturbed from her slumber she may be quite willing to permit the Americans to do exactly what they did in Trinidad with regard to the Pitch Lake. To-day America supplies Great Britain with most of the asphalt she requires—this asphalt is taken from Britain's own territory and sold to her at a profit.

British Guiana seems to be becoming known in England at last, because recently a loan of £1,000,000 sterling was quite easily floated here for its account. Moreover, when His Royal Highness the Prince of Wales visited the West India Islands recently, he said to the people that these islands were not for sale. Be that as it may, it is irritating to hear responsible people making the suggestion in and out of season. When the great war broke out men like Sir Peter J. Mackie, Bart., were quite glad to witness the loyalty and receive the assistance of the Colonies, and it is poor recompense now to find men of his position uttering what serious statesmen must look upon as rank nonsense.

Giving the Americans Glasgow or Aberdeen in payment of the debt is an equally good suggestion. Sir Peter J. Mackie might consider this.

TRADE COMMISSIONER APPOINTED.

Mr. J. L. Wilson Goode has been appointed His Majesty's Trade Commissioner in the West Indies, with headquarters at Port of Spain, Trinidad.

Mr. Goode, who before 1914 was Secretary of the Manchester Association of Importers and Exporters, held during the war a Commission in the Army Service Corps, until, at the request of Lord D'Abernon, he joined the Central Control Board—fortunately on the constructive side, and not on that devoted to restrictions. In 1917 he was appointed H.M. Commissioner at Cape Town, where he remained until the close of 1919, when he was



Mr. J. L. Wilson Goode.

promoted to be Acting Senior Trade Commissioner in India, a position which he filled until the end of 1920, when, after a few months' leave, he was sent to Washington as Acting Commercial Councillor at the British Embassy.

In the course of his work Mr. Goode has travelled widely in Africa, and one is glad to learn that he is a believer in seeing for himself every part of the territory within the scope of his office, and in investigating commercial problems on the spot.

The principal object of the Trade Commissioner will be to stimulate and develop trade between the United Kingdom and the West Indies, including British Guiana and British Honduras, and no doubt he will remind manufacturers in the Mother Country that in those colonies their goods enjoy a substantial preference in the Customs duties, a fact to which they hardly seem to have become awake.

Mr. Goode, who, it is hoped, will attend a meeting of the Executive of The West India Committee on December 7th, will spend a few weeks in Jamaica before proceeding to Trinidad.

CITRUS BY-PRODUCTS.

METHODS OF OIL EXTRACTION.

The following description of the methods of extracting oil from citrus fruits is extracted from "Nicko", an Australian journal devoted to fruit production.

There are several methods used for extracting the oil from citrus fruit, the chief among which are the following:—The Spugna, or sponge process, by which the oil is removed from the burst oil cells of the peel by means of sponges. The principle on which the extraction of the essence is carried out may be illustrated in this way. If a piece of peel is held up to the light and turned inside out a fine shower of vapour is seen to be forcibly ejected. This is not all oil, but a mixture of oil and water. By turning the peel inside out almost the whole of the essence is removed from the peel, for each little globule of oil appears to be surrounded by water, and the liquid which remains adherent to the peel after the breaking of the oil cells consists principally of water. As it is impossible in practice to turn every piece of peel actually inside out, the following method is adopted: One man takes the fruit in his hand, and with three rapid downward strokes of a large knife cuts off nearly all the peel in three slices. The central portion which is left consists of most of the pulp, with a little of the peel at top and bottom. This is simply pressed, in the case of lemons, for extracting lemon juice. The three slices of peel pass to a second man, who has in his left hand a small flat sponge. With his right hand he presses the slices of the peel against the sponge, pressing the edges of the peel only with the fingers, the object being to press the convex piece of peel as nearly flat as possible. The amount of pressure used is very slight, and at first sight it seems incredible that the oil globules can have been broken, but if you try the experiment of turning this exhausted peel inside out nothing more can be extracted. The sponge is periodically squeezed. One man working in this way should extract 1½ lb. of essence per day. To ensure the cells being fully charged with moisture, it is usual to allow the lemons to stand in water for a short while, and we suggest washing the fruit in running water.

The Ecuelle process, which is employed in the north of Italy and south of France (and also in the West Indies), consists of the breaking of the oil globules by means of spikes or knives, and varies in construction according to the amount of fruit to be operated upon. A simple ecuelle is a saucer-shaped vessel about eight to ten inches in diameter, usually made of copper, tinned inside, and covered on the inside with short spikes about one-quarter to one-third of an inch in length. In the bottom of the saucer is a hole about one-half inch in diameter leading to a hollow tube about four or five inches in length. A fruit is placed in the vessel, and by means of a rapid rotary motion the oil cells are caused to be broken by the spikes. The escaping oil flows into the hollow tube, which is periodically emptied. The fruit is generally

treated after all the oil possible has been obtained, either by soaking in warm water or by distillation to obtain the remainder of the oil. The oil obtained by distillation is of inferior quality, as the process impairs the value of the oils.

An apparatus known as the Thermo-pneumatic Extractor has been invented by M. Montalcone for the extraction of all varieties of citrus oils. It consists of a hollow cylinder of sheet iron, the interior surface of which is studded with a large number of metallic knife points. The cylinder revolves on two axles attached to it at diagonally opposite points, giving it an eccentric rotary motion in operation. Its capacity is such that when charged it is capable of holding 1,200 to 1,500 citrus fruits. The cylinder having been properly charged with the fruit and a small quantity of water, it is set in motion by aid of shafting and pulleys operated by oil or steam engine. The fruit is thereby made to come in contact with the metallic lancets, and their whole surface gradually becomes punctured sufficiently to cut or rupture the cells containing the essential oil, which escapes. The cylinder has double walls, the space between them being intended for the circulation of a current of steam, which is admitted to heat the water and to facilitate the extraction of the oil, while at the same time the vapours are rarefied or aspirated by the vacuum pump. The axles of the cylinder on both sides are hollow, that on the side nearest the driving engine being embedded in such a manner that steam from the boiler may be admitted at will either into the double walls of the cylinder or into the interior of the cylinder itself, while the hollow passage in the other axle communicates with a condensing worm, the outlet of which descends into a cylindrical vessel intended to receive the condensed products consisting of water and essential oils. When the apparatus is first set in motion the pump begins to produce a vacuum during the first revolutions of the cylinder. Steam being then cautiously admitted into the double walls of the cylinder, the water is raised to boiling at a comparatively low temperature, and the vapours charged with essential oil rapidly pass over into the receptacle. With a 2 h.p. engine and a boiler designed for a 5 h.p. engine, five such machines may be driven at the one time, and the operation, including the time required for charging and emptying, is completed in forty-five minutes.

With the world's consumption of sugar steadily mounting, the question of increased production is certain to receive attention. The handling of larger crops means the employment of extra machinery, which in turn demands the attention of engineers skilled in modern factory management. Readers desirous of extending their knowledge of the scientific control of the factory; the chemical and mechanical treatment of the juice; steam generation, etc., will do well, therefore, to secure a copy of "The Manufacture of Cane Sugar," by Jones and Seard. This volume can be obtained from The West India Committee, 14, Trinity Square, London, E.C.3, at 26/- post free.

OBITUARY.

HON. CARLOS MELHADO, C.M.G.

We regret to state that the Hon. Carlos Melhado, C.M.G., died in New York on the 15th October, at the age of 70.

The son of a Speaker of the old House of Assembly of British Honduras, the subject of our memoir was born in the Republic of Honduras, coming to the Colony, with the public and commercial life of which he was afterwards so prominently associated, in 1869. He first joined the firm of P. Leckie & Co., afterwards securing a partnership in the business of B. Cramer & Co., from which he separated in 1889 in order to found the well-known firm of C. Melhado & Sons. For over thirty years he sat on the Executive Council, also acting as an Unofficial Member of the Legislative Council on several occasions. He represented the Colony at the Coronation of King George V.

MR. PAUL CRESSALL.

It is with great regret that we have to record that Mr. Paul Cressall died at his residence, 69, Castleton Mansions, Barnes, on November 10th.

It seems only yesterday that we were welcoming Paul Cressall to England on his retirement from British Guiana, and now we have to deplore his death. Less than a month ago he visited The West India Committee Rooms and though it was evident to those who saw him that the state of his health was precarious—for he was a shadow of his former self—he bravely expressed his determination to carry on and to find some new work to take up. Paul Cressall's death may truly be described as the snapping of a link with the past as far as British Guiana is concerned, for though he was only sixty years of age at the time of his death his recollection of the Colony dated back to 1863, when he landed with his father and mother at Georgetown. Four years later he was returning to England in the R.M.S. *Comedy* when she was wrecked by a tidal wave at St. Thomas, and it was a mere chance that he and his parents did not go down with the R.M.S. *Rhone* which took off most of the passengers and herself foundered in a hurricane, since they were left behind. The subject of our memoir returned to Demerara in 1877 to take up the duties of junior clerk in the firm of Sandbach, Parker & Co., for which post he had been selected by Mr. J. Ernest Tinné, the present senior partner. Thereafter his progress in the business community was rapid, and at the date of his retirement in July last he had been senior representative of the firm for very many years. The esteem and regard in which he was held by all classes of the community was shown by the many addresses and presentations which he received on leaving the colony, those bodies which marked their appreciation of his services having included the staff of his firm, the Georgetown Cricket Club, the British Guiana Football Association, the Royal Agricultural Society, and the Georgetown Club, with all of which he had been prominently associated. He was, to quote the words of Mr. Osborne, who presented the staff's address, "not only a just and charitable chief, but a sincere friend in times of need." Paul Cressall was a familiar figure at inter-colonial conferences, and the writer recalls how stoutly he championed the cause of his colony at the meetings of the Associated West Indian Chambers of Commerce. When he came over to England last year it was evident that he was far

from well; but, not lacking in courage and determination, he returned to British Guiana. Landing again in England at the end of July last, he never really improved in health, and on November 10th he succumbed to heart-failure following an operation which he underwent on October 31st. Paul Cressall was married in Demerara in 1889 to Katherine May Miles, who, with five children, survives him.



The Late Mr. Paul Cressall.

The funeral service took place at Barnes Church on November 15th, after which the remains of Paul Cressall were laid to rest in the Cemetery at East Sheen. Those who attended the last sad ceremony, besides the widow and members of the family, were Mr. and Mrs. S. F. C. Nurse, Mr. Frank Nurse, Mr. Ernest Nurse, Miss Cressall, Mr. and Mrs. Ashbee, Mr. H. Miles, Mr. H. A. Cressall, Mr. Russell Garnett, Mr. M. B. G. Austin, Mr. J. P. Auld, J.P., and Mr. G. O. Case, whilst the floral tributes included wreaths from the family, Miss Cressall, Mr. and Mrs. H. A. Cressall, Miss Maud Cressall, Mr. and Mrs. S. F. C. Nurse, and Miss Newsam, Mr. and Mrs. H. M. Nurse and family, Mr. and Mrs. Ashbee, Mr. Ashton Ashbee, Mrs. Darlington, the Misses Miles, Mr. and Mrs. C. J. Bowman, Mr. and Mrs. H. Miles, Mr. and Mrs. G. O. Case, Mr. and Mrs. Auld and Pat, Mrs. Harrison, Mr. and Mrs. E. M. Walcott, Mr. and Mrs. Boulter, Mr. and Mrs. Seedorff and Mr. and Mrs. Albert Triefus.

MR. E. H. CUNNINGHAM CRAIG has kindly reported on the samples of the substance alleged to be "Manjak" found in St. Lucia, to which reference was made under the heading, "More Mani from St. Lucia," in a recent issue. He states that the substance is not Manjak at all, and adds with regard to the shale, a specimen of which was also submitted, that there is no sign of oil in it.

THE GOVERNORS OF JAMAICA.

BY FRANK CUNDALL, F.S.A.

XIII. John White, President.

Of the origin of John White nothing is known. The earliest reference to him is his inclusion in Modyford's Survey of the island in 1670, when he owned 250 acres in St. John and (in company with one Elkins) 30 acres in St. David. In June, 1671, he was sworn of the Council; he was then Chief Justice.

In 1672 one Thomas Bromhall, attorney, for presenting a petition charging White with bribery particularly, and other offences, was ordered by the Council to stand for a quarter of an hour on Grand Court Day in the pillory on the parade at Spanish Town, with his mouth gagged and his thumbs tied, and a paper pinned on his back signifying the offence, and in the same manner to stand the following Court Day at Port Royal.

In 1674 White was succeeded as Chief Justice by Samuel Long. In January, 1680-81 Sir Henry Morgan resigned the sole judgeship of the Court of Admiralty, and appointed White in his stead.

On July 18th, 1688, Judge White was suspended from the Council. Albemarle, in writing to the Lords of Trade and Plantation, gave as his reason "principally because he pleaded for the most part, as a lawyer does for his fee, against the King's interest whenever such matters came before Council, and because it was pointed out to me that he was paid by St. Jago del Castillo to plead for him both in Council and elsewhere." Sir James de Castillo being the agent in Jamaica of the Assiento Company. In December the King wrote to say that White and Bourden, who had also been dismissed the Council, were to be reinstated.

In June, 1691, a John White was returned member of the Assembly for St. Ann, but he apparently did not take his seat. This may have been the Councillor's son.

In August Inchiquin, feeling unwell and seeking permission to visit England, said:

"I wish I had power to appoint a deputy to save the Government from falling again into the hands of a President and Council; but if not I think Mr. John White the fittest man for it. I take him to be a very honest gentleman, and one who will not let the King's prerogative or revenue suffer, which most of the Council have attempted, especially Beckford, Bernard and Lawes, the greatest incendiaries here."

On the death of Inchiquin, in January, 1691-2, the control of affairs fell upon John White, as senior member of the Council—a man of integrity, who commanded the confidence of his fellow Councillors. His tenure of office, which lasted until his death, only seven months later, included the greatest calamity suffered by Jamaica.

White took warning from Watson's unsuccessful attempt to play the Governor, and on the death of Inchiquin declared that the "administration of the Government is devolved upon the present Council," and no Assembly was summoned. All

persons were continued in office until the Royal pleasure was known. It was ordered that the whole militia of foot, which had been split up into independent companies by Inchiquin, leading to disputes amongst the officers, should be "re-mented" as formerly, and the troops of horse were put under the command of the colonels of foot in the various precincts. The Council met at Port Royal "to view their Majesties Forts, Fortifications and Stores," and took other methods of protection as there was a strong fear of invasion by French ships. On the advice of the Attorney-General that the Council had the power, they granted private commissions of war to strengthen themselves and to keep seafaring men from leaving the service of the island, and they requested that a free pardon should be granted to privateers abroad to encourage them to return to the island.

On January 28th, the Council, twelve days after the Governor's death, wrote home to the Lords of Trade and Plantations reporting the steps they had taken. There were at Port Royal five forts, Charles, Rupert, Morgan, Carlisle, and Walker. The fortifications at Port Morant [Fort William] were quite out of repair; the frigates were away from port—the *Guernsey* gone to the Havannah and the *Swan* to Porto Bello. These forts and frigates were alike in want of stores. They hinted that Inchiquin had been arbitrary as president of the Council, and begged that no Councillor should be dismissed except by Royal command, or by the Governor with the concurrence of the full Council. They urged the passing of a law granting £300 a year for a representation of the island in England.

On May 20th the Council wrote home:—

"For want of this the Jews eat us and our children out of all our Trade the reason of granting them by yr. law of this Island Letters of Naturalization not having been observed for there has been no regard had to their settling and planting to wch. they are obliged by the letter of the law. And it is true Intent can at this day be attested by several of us that assisted at its making. We wanted them not (my lords) at Port Royall a place peopl'd and strong enough without them, and though they are told the whole island is before them wch. was never so thin as now and they were intended to be by their occupation Sheep-Keepers and planters they are suffered to make Pot. Royall their Gosben and they will do nothing but trade when an Assembly is inclin'd to tax them something higher then their fellow Christians who alone serve on Juries and do other duties in the Governmt. whereof they are Un capable, finde wayes not only to evade that but to be Distinguisht by Speciall favours; this, may it please your Lordships is a great and growing evil and had we not warning enough from other Colonys which have suffered in the same kinde, wee see our streets fill'd and the ships bound heither crowded wth. them and ye consequence is no less then taking our children's bred and giving it to Jews. To prevent these and many other inconveniencies we want a Soliciting law and doe take leave with all humility to assure your Lordships that we doe verily beleive that the granting of that and a Little more Confidence in the Council would save your Lordships a great deal of trouble, would prevent Complaints wch. would be more Rarely offered when they

could be cheaply answered and their Majties most gracious and Excellent Instructions be more exactly observed."

and they sent home an account of the manner in which Inchiquin treated the Assembly.

Permission was given to the inhabitants of Clarendon and Vere to build at their own charge a fortification at Carlisle Towne. Guns were supplied for planting at "Freeman's Bay" [Port Morant], Port Maria, Old Harbour, and Witherwood [Vere], while Robert Bowman had permission to plant guns at Manchioneal, "at his own charge."

The merchant ships in Port Royal harbour were put under control, and other steps were taken; the *Scan* was kept as a fire-ship; but martial law, which had been proclaimed on February 9th, ceased on March 30th. On the following day Bernard, Beckford and Lawes told the Council that they had been informed that they were represented in England as factious and disloyal, and the rest of the Conneillors present—White, Bourden, Heywood, Towers, Orgill, and Knight—declared they "never knew any of them of such behaviour." On April 11th James O'Brien resigned his office as Commander of the Ports at Port Royal, and was succeeded by Peter Beckford, who had been dismissed from that office by Albemarle. Beacons were ordered to be erected to windward, and directions were given for safeguarding the inhabitants on fear of invasion.

On April 27th the Council sent a very flowery address to the King and Queen, "and of Jamaica lord and lady," protesting against the actions of Albemarle in overruling laws and attempting to set up the Roman Catholic religion, and at the same time they wrote: that the Council were honest in their endeavours for the welfare of the island, for when they asked William Beeston and Guilbert Heathcot to represent them in England they, ten of them, said that if they failed to get the £900 voted to them they would each contribute £80 a piece. At the same time they voted £1,000 per annum to White as President, and £100 each to themselves. They begged especially that the laws passed by Albemarle might not be confirmed, as the Assembly which passed them was illegally chosen.

"We have given orders for the Repair of Fort Charles. The Stores in or. Magasin by furnishing their Majties. frigats are very small and we in great want of powder and Match wch. we pray yor. Lordships to Represent that we may be ordered a speedy supply, we have received no Manner of orders or advice since we have been in the Governmt. So that if we have made any falce steps we hope yor. Lordships will be pleased to excuse it."

(To be continued.)

LIEUT.-COLONEL R. DEANE, O.B.E., Chief of Police in St. Lucia, has been appointed Inspector-General of Police, Mauritius.

The minimum subscription for membership of The West India Committee is £1 1s. per annum.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

A Turf Club for Antigua.

Hon. Donald MacDonald, writing on October 26th, states that the boring operations which were commenced by the Government at "Seaforth" in order to endeavour to obtain a constant supply of water, have been abandoned, as the water found was too salt to be of any use. Another attempt is to be made farther inland and nearer to the reservoir at "Sweets." There were good rains all through September and October, and the canes have responded well. The two dams at Mermaid Rock and at the new dam below were then full, but the large ponds throughout the Island still required the so-called "pond rains."—His Grace the Archbishop of the West Indies, at the conclusion of the Synod of the Province in New York, remained in the United States until November on behalf of the Diocesan Clergy Insurance and Pension Scheme.—Mr. Eric Eldridge, Land Officer of the local Agricultural Department, has been given a studentship at the Agricultural College, Trinidad, by the British Empire Cotton Growing Corporation. Mr. Eldridge has done much useful work in connection with cotton and onion growing, sugar-cane experiments, the hard-back beetle and other insect pests.—To replace the defunct *Sun*, an attempt is being made to organise a new local newspaper for the Island, and the Antigua Publishing Co., whose directors are Mr. T. B. Burrowes, C.B.E., Hon. R. Warnerford, Mr. N. Scott-Johnston, Mr. R. Goodwin, Major J. T. Dew, and the Hon. Donald MacDonald, has been formed for this purpose.—The Governor called a meeting at Government House on October 24th to consider the formation of a Turf Club. Those present unanimously approved of the suggestion, and a Committee was elected at once to carry out the details. The club will arrange an Annual Race Meeting on Boxing Day, and will do everything possible to foster the spirit of sport, which may be dormant at times, but never dies out in these communities.

Splendid Crop Weather in Barbados.

September was a splendid month from the agricultural point of view (says the Barbados *Advocate* of October 10th), giving an average rainfall of 14 inches. October, however, had so far only given partial rains, but the crops were all looking vigorous and healthy.—The Island's Cricket Team, after retaining its supremacy over British Guiana and Trinidad, was given a vociferously enthusiastic welcome on its return from Georgetown on October 9th. A reception committee, consisting of Mr. R. Challenger, Mr. L. Yearwood, and Mr. Percy Goodman, met the party on landing from s.s. *Caraquee*, and Mr. A. Somers-Cocks expressed the feelings of the onlookers in heartily welcoming the victorious team.—A deputation, consisting of Mr. H. Washington Harper, Mr. Joshua Baeza, Dr. J. G. Williams, Dr. A. G. Bancroft, Very Rev. Dean Shankland, Dr. J. R. Phillips, and Mr. C. W. Haynes waited upon the Acting Governor, Hon. W. E. Jackson, C.M.G., on October 2nd. Mr. Harper said that the deputation were there to bring forward certain resolutions passed by a very representative gathering of parochial authorities and officials, who were unanimous in trying to free the island, if possible, from the troubles resulting from syphilis and pellagra. The

Government were asked to take steps to procure, if possible, trisodium citrate for the treatment of pellagra, as recommended by the Italian medical authorities. Mr. Joshua Baeza pointed out that they had already obtained good results with sodium citrate, but hoped for even better success with trisodium, which, however, as a German proprietary article, they had so far failed to obtain. His Excellency, in reply, said that a very much improved public health organisation was sadly needed.

Bahamas' Flourishing Finances.

Hon. George K. K. Brace, Chief Clerk in the Treasury and Acting Receiver-General, has been appointed Auditor of Public Accounts in succession to Mr. Nigel Burnside, I.S.O. Mr. Brace, who is a Bahamian, entered the public service 37 years ago, and his appointment is hailed with acclamation by the *Nassau Guardian*.—The returns of revenue and expenditure for the June quarter, which have made their appearance, make it clear that no fears need yet be entertained of a shrinkage in the Colony's revenue. Although £180,846, the total amount received, falls slightly below the unprecedented figures for the March quarter, it is twice as much as the average total revenue up to a few years ago, and represents an increase of nearly £100,000 over the June quarter of last year. Of the above, one source alone, Customs, yields the respectable total of £168,322, and there must be many Colonists who have a kind word for the Fifth Amendment to the United States Constitution.—His Honour the Speaker and Mrs. Malcolm returned to Nassau on October 23rd. Other arrivals after holidays in the Old Country and the States include the Hon. J. Ronald Young, M.E.C., Hon. William Miller, M.L.C., and Rev. Canon M. E. Webb, Rector of Andros.

Better Times for British Honduras.

Mr. S. Wolffsohn is quoted by the *Clarion* (October 5th) as saying that business and financial conditions have taken a sudden turn for the better in British Honduras, and that there is every evidence that the country is on the eve of an era of unusual prosperity. "A new industry" (Mr. Wolffsohn continues) "being carried on by American capital is the manufacture of turpentine, which promises to develop on a grand scale. Pine trees abound and produce a surprising amount of resinous matter, the Honduras pine wood being so loaded with resin that it will not float."—The death of Hon. Carlos Melhado, C.M.G. (a memoir of whom appears elsewhere in this issue), and of Hon. W. F. Wade, removes two notable figures from the life of the Colony.—To consider how the Colony's resources may best be advertised at the British Empire Exhibition, 1924, a Committee has been appointed consisting of Mr. C. Hummel (chairman), Hon. G. E. Graham, Hon. W. A. J. Bowman, Mr. F. E. Starkey, Mr. A. D. P. Williamson, Mr. P. Stanley Woods and Mr. F. W. Ross (Hon. Secretary).—The question of giving further protection to the Colony's sugar industry, which was much to the fore in the spring, is again before the Legislative Council. On October 27th, Hon. W. A. J. Bowman was due to move "that in the opinion of this Council the Governor should consider without delay the question of inviting this Council to make provision for granting protection to the sugar industry."

English or Patois in Dominica P

In an address on the English language as it affected the people of Dominica on October 8th, the Very Rev.

Father De Vos, Vicar-General, said that it was a serious matter to contemplate the fact that that island, which by the Treaty of Versailles over 130 years ago, definitely became a British possession, had made so little progress with the use of the English language. Unlike twenty years ago, French was now entirely eliminated from the sermons and the catechisms, whilst only 50 per cent. of the people had recourse to French in the confessionals. The Vicar-General charged the parents (says the *Dominica Guardian*) with a large share of the responsibility for the patois speaking, also reproaching the Government for not enforcing rigidly enough the system of compulsory education.—The proposed visit of H.M.S. *Hood* and H.M.S. *Repulse* to Dominica during October had to be cancelled, much to the disappointment of the inhabitants, owing to the Alastrim epidemic.

Grenada's Exports.

The death took place on October 6th of Mrs. Franco, wife of Mr. J. C. Franco.—H.M.S. *Repulse* visited St. George's from October 12th to 17th. The arrangements for the entertainment of the ship's officers and crew included cricket and football matches, concerts and an At Home.—By Proclamation dated August 24th, the prohibition of the exportation from the Colony of bank notes of all denominations and silver coin and other silver is revoked.—By courtesy of Messrs. Jonas Browne & Son, the Circular is able to publish the following figures showing the exports from Grenada and the Grenadines for the last five years:—

Crops Oct. 1. to Sept. 30.	Cocoa bags	Sugar p. lbs.	Custom bales	Cotton-Sewer bags
1921-1922	41,415	13,078	867	4,743
1920-1921	52,434	11,759	1,191	3,599
1919-1920	63,100	12,261	1,266	6,011
1918-1919	62,377	17,979	1,088	4,863
1917-1918	68,240	16,388	1,730	3,953

Of the above, the shipments were as follows:—

	To North America.	To Barbados.
1921-1922	8,730	10,038
1920-1921	7,993	7,653
1919-1920	10,788	6,311
1918-1919	11,658	6,691
1917-1918	43,801	6,828

and the remainder to Europe.

The exports in 1921-22 also included 22 packages of kola, 22 bags of copra, and 356 casks of lime juice.

Insurance of Jamaica Bananas.

There has hitherto been no insurance of bananas against damage by hurricanes, companies presumably being unwilling to take the risk. Now, however, it is announced that a well-known insurance company is willing to insure banana-growing properties at the rate of ten shillings per acre for a period of not less than ten years, the further suggestion being made that those who refuse to insure should be unable to borrow money from the Government in the event of a hurricane devastating their plantations.—Mr. J. B. Stivien presided on October 25th over the annual meeting of the Jamaica Tourist Association, the other members present being Mr. R. W. Bryant, M.B.E., Mr. Henry Evelyn, Mr. J. Hunt, Mr. Harold Bolton, Mr. R. V. Myers, Mr. J. Kearns, Mrs. Fraser, Mrs. Clarke, Miss Farquharson and Mr. Innes Pocock (Hon. Secretary). Mr. Bryant was elected President of the Association, and Mr. E. A. H. Haggart Vice-President. The new President said that the Association was known throughout the world, and that the advertising that had been done by them was now bearing fruit.—After a temporary cessation of the fire epidemic of a few

months ago, a destructive fire again occurred on October 30th, the scene being Spanish Town. A number of business premises were completely or partially gutted by the fire, which appears to have started in the provision shop of N. G. Thompson, a Chinaman. Other premises involved included the provision shop of Messrs. W. N. Meeks & Co., Mr. Bennett's bakery buildings, Mr. Grey's drug store, and Mr. J. B. Athias' brewery, the total damage, according to the *Gleaner*, being in the neighbourhood of £10,000. There was considerable looting.—The Council of the Jamaica Imperial Association met on October 18th, when the question of the French market for honey and other Jamaica products having been considered, the following resolution was passed: "That in the opinion of the Association it is not in the interest of Jamaica that the Convention which provides for British goods entering France on a preferential basis includes such goods as pepper, anonums, cardamoms, cinnamon, cassia-bingea, nutmegs, etc., owing to the fact that these goods are not produced in Jamaica, and, if produced, not to any appreciable extent, whereas honey, orange oil, annatto, kola-nuts and ginger are not included: That it is desirable, on behalf of Jamaica, that negotiations should be entered into with the French authorities with a view to having the Convention amended by including honey, orange oil, annatto, kola-nuts and ginger: That a copy of this resolution be sent to The West India Committee and the local Government, asking them to take up the matter with the proper authorities."—The death is recorded of Mr. C. M. Farquharson, of Black River, the head of a firm of exporters of logwood and shipping agents. On October 27th the flags of vessels in Kingston and of the shipping offices were flown at half-mast as a token of respect.—In view of the outbreak of foot-and-mouth disease, Commissioners under the Contagious Diseases Animal Law of 1909 have been appointed for the parishes of St. Andrew, St. Thomas, Portland, St. Catherine, St. Mary, St. Ann, Manchester, Clarendon and Trelawny, the nominees being Mr. G. S. Seymour, Mr. W. Dougal, Mr. S. S. Stedman, Mr. A. L. Keeling, Mr. A. C. Westmoreland, Mr. Peter Blagrove, Mr. E. W. Muirhead, Capt. A. S. Phillips and Mr. A. S. Gray respectively. Mr. P. Connacher, the veterinary expert selected by the Secretary of State to visit Jamaica in connection with the outbreak, arrived on October 17th. Every precaution has been taken to prevent the spread of the disease, and a squad of constables sent from Kingston to Montego Bay for special service within the infected area.—The *Gleaner* of October 13th learns that the Government is about to issue three loans, the total amount of which is understood to be £620,000.—A vacancy on the St. James' Parochial Board has been filled by the election of Mr. J. O. Kelly-Lawson, who defeated Rev. J. T. Dillon by a large majority.

By the time that the tourist season is in full swing, says the *Gleaner*, Kingston will be able to boast of a huge sea-water swimming bath, thanks to the foresight and enterprise of Captain George Lindsey. The bath is to be erected at Bournemouth Gardens, along the Windward Road.

Mr. Pitcairn's death in St. Kitts.

The death is announced of Mr. Thomas Pitcairn, which took place at his home in Basseterre on October 16th. Mr. Pitcairn, who was born in Glasgow, came to the West Indies about 55 years ago.

H.M.S. "Hood" Visits St. Lucia.

H.M.S. *Hood*, the flagship of Rear-Admiral Sir Walter H. Cowart, Bt., K.C.B., D.S.O., anchored off

Castries on October 17th. The Administrator having made his official call, which was returned, a reception was given at Government House in the afternoon. Next day, the ship was open to visitors, a dinner and dance taking place at Government House in the evening. H.M.S. *Hood* was joined by H.M.S. *Repulse* on October 20th, both ships leaving St. Lucia together that evening.

Trinidad's Coastal Service.

The Government has announced its intention of withdrawing the Southern Steamer Service from the end of the year, the decision being due, according to the *Trinidad Guardian*, to the fact that the service is being run at a loss of approximately £10,000 per annum. Until recently it has been carried out by s.s. *Naparima* and s.s. *St. Patrick*. It is probable that the former will continue to perform the Island's service, which she is at present undertaking in place of s.s. *Paria*, which has been stranded.—On October 15th the first aircraft engaged in an overseas journey alighted at Port of Spain. This was the *Sampaio Correia II.*, which had then covered about 2,600 miles out of the 7,500 miles of its projected expedition from New York to Rio de Janeiro. The seaplane brought to Trinidad the following letter from the Bahamas: "22nd August, 1922. Greetings to the *Trinidad Guardian* from the *Nassau Guardian* by the first Aerial Post between the Northern and Southern West Indies.—Mary Moseley."

The Government is considering the question of releasing lands now held by Oil Companies under prospecting licences, believing that in many cases sufficient time has been given to determine whether or no the areas are oil-bearing.—The Governor has appointed the Hon. A. Fraser, A. H. Cipriani and Mr. G. H. Huggins a Committee to inquire and report on Mr. Wood's proposal for legislative reform. The Working Men's Association of the Island sought to have Capt. A. A. Cipriani included as a representative of Labour but His Excellency declined the request on the ground that he is satisfied that the gentlemen named will be able to represent the opinions of all classes of the community.—A new Temple for the Royal Prince of Wales Lodge, No. 867, was dedicated on October 14th. The building is a handsome two-storeyed structure in the modified Tuscan style of architecture in Alexandra Street.—Mr. J. S. Dash, Professor of Agriculture and Agronomist on the Professorial Staff of the West Indian Agricultural College, arrived in the Colony on October 13th. It will be recalled that Professor Dash was for some years assistant to Mr. J. R. Bovell, Superintendent of Agriculture in Barbados, and more recently Director of the Agricultural Department, Guadeloupe.

The names of the following students appear in the *Trinidad Guardian* as having passed the Entrance Examination of the Agricultural College, and having been nominated by the Governor to the scholarships given by the Trinidad Government entitling them to free tuition:—Mr. B. G. Montserin, Mr. V. I. Mulloon, Mr. J. S. Clerk, Mr. S. C. Littlepage, and Mr. H. R. Ryan.—A writing desk, in Louis XVI. design, and made of Trinidad mahogany throughout, has been completed and is to be sent to Princess Mary in commemoration of her wedding.—The celebration of the centenary of Brazilian Independence has afforded Trinidad (in common with many of the West Indian Islands) an opportunity of seeing H.M.S. *Hood* and H.M.S. *Repulse*. Before leaving Port of Spain on October 10th these warships filled their bunkers with 8,000 tons of oil, supplied by the Trinidad Leaseholds, Ltd.

PERSONAL NOTES.

MR. R. SHARPE, Treasurer of Dominica, has been promoted to be Deputy-Comptroller of Customs, Gold Coast.

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MR. C. H. CONN, M.M., the Sub-Inspector of Police, St. Vincent, has been appointed Superintendent of Prisons, Gold Coast.

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MR. E. F. S. SHEPHERD, son of Mr. F. R. Shepherd, Agricultural Superintendent of St. Kitts, who graduated in the spring at Macdonald College, McGill University, is passing through London on his way to Mauritius, where he is to take up the position of Botanist and Mycologist to the Department of Agriculture.

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MR. J. HOWARD MOORE, J.P., whose death the CIRCULAR regrets to report, took place at Bromley on November 5th, was for many years Chairman of British & Benington's, Ltd., of Southwark, wholesale dealers in food products, and members of The West India Committee. Mr. Moore was a keen sportsman, and in his early days a splendid cricketer.

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MR. R. PARKINSON GOFFE's venture in establishing a direct West Indian fruit supply for Nova Scotia seems to be meeting with success. He states that a shipment of bananas, grape-fruit, oranges, and coco-nuts which arrived at Halifax on November 3rd, per Messrs. Pickford and Black's Line, met with a very ready sale. The price of bananas at that port has lately fallen from 60 cents to 25 cents a dozen.

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CAPTAIN F. F. C. MESSUM, the hon. secretary of the West Indian Club, gave an interesting address to the members of the Rotary Club at the Hotel Cecil on November 8th on the Argentine Republic and the great possibility of trade between that country and England. The address was listened to with great appreciation by the audience, and no doubt good results will ensue from Captain Messum's persuasive eloquence.

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LORD BURNHAM, Chairman of the Empire Press Union, has now definitely accepted the invitation extended to him by Mr. Herbert G. de Lisser, C.M.G., on behalf of the Jamaica Imperial Association, to visit Jamaica. Accompanied by Lady Burnham and Captain H. E. Turner, Secretary of the Union, he will reach Kingston via New York in the R.M.S. *Orca* in February. It is hoped that it may be possible to arrange for a Press Conference to be held during Lord Burnham's stay in the island.

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LIEUT.-COLONEL SIR JOHN ROBERT CHANCELLOR, K.C.M.G., D.S.O., Governor of Trinidad and Tobago from 1916 to 1921, figures in the Dissolu-

tion Honours List, following the resignation of Mr. Lloyd George. Sir John, who now receives the Grand Cross of the Order of St. Michael and St. George, is Principal Assistant Secretary to the Committee of Imperial Defence and Secretary to the Overseas Defence Committee, positions which were previously held by Sir Samuel Wilson, the present Governor of Trinidad.

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HIS HONOUR SYDNEY CHARLES KING FARLOW NETTLETON has been appointed Chief Justice of the Bahamas, in succession to Sir Daniel Tudor. The new Chief Justice, who was called to the Bar by the Middle Temple in 1889, was appointed a Puisne Judge in Uganda in 1912. Since 1915 he has been a Puisne Judge of the Gold Coast. Besides being the author of various legal works, Mr. Nettleton has twice stood for Parliament, unsuccessfully contesting Sheffield in 1909, and South Hackney a year later, in the Liberal Unionist interest.

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DR. G. H. MASSON has been the recipient of a cheque for £100 from the Managing Directors of the P. & O. Steam Navigation Co., as "a mark of appreciation of the self-sacrificing and skilful manner" in which he attended the influenza patients on the *Caledonia*, in October, as recorded in last CIRCULAR. He has also been presented with a silver cigar box by the captain and ship's company. At the time of the epidemic Dr. Masson was coming to this country from India, whither he had accompanied a number of returning East Indians as medical officer in s.s. *Rughli*.

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CANON T. H. BINDLEY, D.D., late Principal of Codrington College, who, to the delight of his friends in the metropolis, has been paying a short visit to London, is responsible for the following rhyme, which formed itself in his head while he was musing on the motto of the West Indian Agricultural College, namely, "Via colendi haud facilis":—

"Practise and Science coincide
Planters' equipment to provide;
For best productions of the soil
Are only gained by hardest toil."

* * *

CAPTAIN REGINALD BERKELEY, the versatile young barrister, who successfully contested Central Nottingham in the Liberal interest, is a son of Mr. Humphry Berkeley, and nephew of Mrs. Bromley, of St. Kitts. Not only is Captain Berkeley a playwright, having produced "French Leave" and "Eight o'Clock," but he is also the author of numerous literary and political essays. He first practised in Fiji, where he joined the local Defence Force, and eventually came over to England and gained a commission in the Rifle Brigade, with which he served in France, being awarded the Military Cross at Guillemont. It is sad that this promising young man should have announced himself to be a Free Trader.

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

The Department of Agriculture at Kuala Lumpur, in the Federated Malay States, is experimenting as to the agricultural value of a local mineral phosphate which appears to consist mostly of an hydrated phosphate of aluminium.

* * *

A hen, says *Nicko's*, is born with a certain number of germs or rudimentary eggs, and when she has laid the lot she is through with egg-laying. She may be born with a capacity to lay 500 or 1,000 eggs, but whatever the number be, she can lay no more.

* * *

The sugar-cane is indigenous to Hawaii, but it was not until 1817 that it was utilised as an industry. It is stated in the *Planters' Monthly* of 1882 that molasses (syrup?) was made in that year, followed by sugar in 1819; also that coffee plants were introduced by Lord Byron in 1825.

* * *

In the *Journal* of the South African Department of Agriculture, 8 (1921) an account is given of experiments in the direction of the manufacture of Gauda, or sweet milk cheese, from pasteurised milk. The pasteurisation was conducted at 145 deg. Fahr. for ten minutes. The milk was then cooled to 86 deg., after which it was converted into cheese by the usual process. The cheese thus made was superior to that from unpasteurised milk.

* * *

Professor Alan Murray, of Reading College, who contributed an article to *Science Abstracts* some time back, in which new views as regards food were advanced, says: "Sawdust contains about 15 per cent. of digestible organic matter, equal to about 0.5 kilo-pound units of metabolisable energy per pound; but, as ingestion of this material increases metabolism by twice that amount, the nutrition effect is negative. In other words, sawdust does not retard, but actually accelerates the process of starvation."

* * *

In the recent egg-laying test at Philadelphia, Lady Egg-a-day, a Buff Orpington, became the world's champion, having performed the herculean task of laying, during the 365 days of the test, which was carried out at Georgetown, Delaware, no less than 348 eggs—four more than the record of any country. Her Ladyship was raised in Lancashire and sent to the United States to take part in the competition, and her achievement certainly reflects credit on the Mother Country as regards poultry raising.

* * *

An account of the life history and habits of the Mexican bean beetle (*Epilachna corrupta* Muls.) appears in the *Colorado Station Bulletin* 271 (1921). As regards its control, the least amount of injury to the beans, which are very susceptible to injury from arsenical sprays, occurs with the use of arsenite of zinc, which it is recommended should

be applied at the rate of 1 lb. of the powder to 40 or 50 gallons of water. One, two, or three applications may be necessary, which should be made to the under-surface of the leaves.

* * *

An extraordinarily severe banana disease has prevailed in Celebes, in the Dutch West Indies, for several years, to which the term "blood disease" has been given. It is characterised by a sudden yellowing of the whole leaf crown, with discoloration of the fruit. The changes in the fruit are specific, including a yellowing or browning of the central vascular bundles, extending even as far as the rind. Transmission occurs from mother plants to younger plants, or by way of the air, but the carrying agent has not been identified. The diseased cells contain numbers of bacteria similar to those found in old rotted rhizomes and in the soil.

* * *

According to the *Fertilizer and Feeding-Staffs Journal*, a promising fertiliser industry exists in South Africa in connection with the whale industry. After the blubber has been separated by steam heating in iron drums, the "meat" is placed in the sun to dry, the drying process being finished in a revolving drum heated by coke, and through which air is driven. The dried meat is then ground and packed in bags. The bones are also somewhat similarly treated. The industry is stated to be an exceedingly profitable one. One company is converting the whole of the dried carcasses into a single product, a rich guano containing over 10 per cent. ammonia and 17 to 23 per cent. of phosphates.

* * *

The *Sugar News* of the Philippines for September contains an article on alcohol as a motor fuel in which it is stated that the cost of the raw material for producing, in those islands, one litre of alcohol of 180 deg. proof is, with cane molasses at 0.24 peso per gallon, 0.118 peso; with cassava at 11.00 pesos per 1,000 kilogrammes, 0.068 peso; with sweet potatoes at 17.50 pesos per 1,000 kilogrammes, 0.112 peso; with maize at 57.00 pesos per 1,000 kilogrammes, 0.182 peso; with nipa sap at 0.00778 peso per litre, 0.054 peso, and with coconut palm sap at 0.010 peso per litre, 0.188 peso. In 1911 one of the distilleries of the Philippines produced alcohol from nipa juice at an actual cost of 0.100 peso per litre. The peso is worth about 2/-.

* * *

The Board of Agriculture has issued a most useful pamphlet on the subject of "Beneficial Insects"—that is to say, insects which destroy insect pests—which enumerates many. Among these is the ladybird grub, which does good service in keeping down the greenfly, the terror of home gardeners. The grub feeds on these almost continuously, and will consume 30 to 40 aphides at a sitting without turning a hair. As regards the pest destroyers, however, the pamphlet sounds a note of warning. "Beneficial insects," it says, "seldom, if ever, exterminate a pest, or extermination of themselves would be likely to follow." The most they can do is to check the pests, and when their power fails in this respect, the cultivator must himself resort to artificial measures of pest destruction.

SOME COMPANY NOTES.

Apex (Trinidad) Oilfields, Ltd.

A maiden dividend of 10 per cent. (2/- per share), less income tax at 5/6 in the £, has been declared for the financial year ended September 30th, 1922.

The Cuban Sugar Outlook.

Presiding at the annual meeting of the United Railways of Havana, on November 10th, Mr. J. Cater Scott, dealing with the prospects of 1922-23, said that Cuba was looking up; she was recovering from the difficulties of 1920, when she was very hard hit, and time must be given to her to restore normal conditions. A year ago, when he was addressing the shareholders, the outlook was by no means encouraging; a very large surplus of sugar had been carried over from the 1920 to the 1921 crop—the estimate was one and a half million tons—and that exercised a depressing influence over the island. People did not know how it would be realised, and it made the financing of the new crop very difficult. Now, within two months of opening the crop of 1922-23, that surplus had practically disappeared. There was no doubt that the needs of the world for sugar were under-estimated. People thought there was an over-supply of sugar, but that had turned out to be wrong, and as people got more confidence and bought sugar that surplus disappeared, so that to-day they were starting on an even keel. It was estimated that to-day the largest amount carried over from the old to the new crop would be some 200,000 tons, much of which had been sold. (Hear, hear.) Altogether, the position was much healthier and brighter, and they could look forward to the future with more satisfaction. The prospects for the new sugar crop were good. They had received a telegram stating that the prospects of the coming crop were distinctly favourable.

OUR WEST INDIAN LIBRARY.

THE SOUTH AFRICAN SUGAR ANNUAL, FOR 1920-21. Uba Printing Co., P.O. Box 925, Durban. 260 demy quarto pages. 4/3 post free.

This excellent annual contains a mass of interesting information about sugar in general and that of Natal in particular. An especially valuable feature of it is the evidence given of the progressive nature of the Natal industry, as shown in the full descriptions of the Mount Edgecombe factory and the Hulett refinery, the former being thoroughly equipped with the latest improvements in methods of extraction of the juice from the cane and the subsequent conversion into high quality white sugar. Apart from these there are articles dealing with the first history of sugar in Natal, and others of great value in connection with the cultivation of the cane and the economic side of sugar production. Indeed, the annual cannot but be of interest to those connected with sugar production in all parts of the world. The book is well printed on good paper, is strongly bound in boards, and is sold at a remarkably low price considering its worth.

ACCORDING to *Commerce Reports*, a new motor spirit has been patented in South Africa under the name of "Springbok." It is made from the juice of the prickly pear mixed with other chemicals. With a six-cylinder car a mileage of 22.4 to the gallon is said to have been obtained.

THE SERVICE BUREAU.

A Poser from Trinidad.

The Service Bureau of The West India Committee takes a pride in answering all questions relating to the West Indies that are referred to it, and not a day passes without several conundrums being asked. One of these, however, they have been unable to answer, and that is relating to the whereabouts of the Minutes of the Illustrious Board of the Cabildo, which Dr. Prada, the Chairman of the Public Library of Port of Spain, is anxious to ascertain.

Notes and Queries kindly published an enquiry in the terms set out below from the Secretary of The West India Committee, who also wrote to the Colonial Office and the British Museum, without obtaining a satisfactory reply. Possibly some reader of THE WEST INDIA COMMITTEE CIRCULAR may be able to help in the search for the Minutes of the Cabildo. The enquiry in *Notes and Queries* was as follows:—

In 1815, Sir Ralph Woodford, the Governor of Trinidad, ordered that the old Minutes of the Illustrious Cabildo of the island should be translated, and the task of doing this was entrusted to an Irishman, Don Diego Meany, who had been in Trinidad before its conquest.

It is recorded that he was paid a fee of \$1,200, and that the work was entitled "A Translated Abstract in English of the Autos or Minutes of the Illustrious Board of the Cabildo from the year 1733 to the commencement of the month of June, 1815," but whether the work was printed as ordered, I have been unable to find out. Local historians, such as Joseph, Borde and Fraser, quote from the work, and it is reasonable to assume that several copies must have been in existence.

Fraser has stated that a copy was presented to the borough council of Port of Spain by Mr. H. Stone in the eighties, but Dr. E. Prada, chairman of the Public Library of Port of Spain, has been unable to trace it.

Can any reader help me to find a copy of the book, which would be of great historical value?

Of more serious import have been questions regarding the resources of St. Lucia and Dominica, and the openings afforded by those islands for the investment of capital, and the prospects of establishing a fruit trade in Trinidad and Tobago, which were satisfactorily answered. Similarly enquiries relating to such diverse subjects as the electric voltages used in the West Indies, the insurance of bananas in Jamaica, facilities for exhibiting cinema films, the choice of hotels in the West Indies, and the need for visas for passports have been dealt with; but the most comprehensive enquiry answered related to statistics of the total trade between the West Indies and the United States of America, details of which were asked for and given.

It is hoped that readers of the CIRCULAR will make it widely known that the Service Bureau of The West India Committee is at the disposal of all those who may wish for information regarding the West Indian Colonies, or matters concerning them.

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in s.s. *Palia*, November 11th:—

Miss N. B. Froke	Mr. C. E. Mellish	The Misses Simms (2)
Mr. J. C. Garradine	Mrs. G. Piccinotto	Mr. F. Stephens
Dr. C. S. Gideon	Rev. Archdeacon W. Simms	
Miss E. M. Kelsall		

Thos. & Jas. Harrison.

Sailings to West Indies, from London, in s.s. *Ingoma*, November 17th:—

Mr. J. C. Angus	Mr. & Mrs. W. Gordon	Mrs. Proctor
Miss M. F. Bartlett	Gordon	Mr. C. Proctors
Mr. Bolton	Mr. Bert Gow	Mr. & Mrs. Reid
Rev. F. G. Briggs	Mr. Gray	Mr. & Mrs. Rodriquer
Mrs. Jynon	Ms. C. Gurney	Mr. J. Sharp
Rev. & Mrs. Cawley	Mrs. & Miss Hughes	Dr. Skeete
Miss Churchill	Chamberlain	Mr. & Mrs. Smith
Mr. & Mrs. Collier	Mrs. Luckhoo	Mrs. Stalley & family
Col. & Mrs. Collins	Mr. Fred May	Miss Stephenson
Mrs. Cox	Mr. & Mrs. J. B. Martin	Mrs. Stent
Mr. Crichton	Rev. John McGowan	Mrs. Stollinger
Mr. de Freitas	Mr. D. McGillivray	Miss Veacock
Mr. K. Farle	Mrs. D. Paige	Mr. Viers
Mrs. Edie	Mrs. M. A. Palmer	Rev. G. Weld
Mr. Edmondson	Mrs. Patterson	Rev. & Mrs. Collin
Miss Elsdon	Dr. & Mrs. Pilgrim	Williams
Mr. & M. s. Emily	Mrs. Pilkington	

Royal Netherlands West Indian Mail.

Sailings to West Indies from Dover, in s.s. *Orange Nassau*, November 11th:—

Miss E. Ballantine	Mr. K. Gordon	Mrs. E. Ross
Mr. C. H. Berridge	Mr. J. Klagbrunn	Mr. S. J. Sward
Mr. & Mrs. J. Blankenhagen	Mrs. M. Longstaffe & child	Mr. K. D. Schneider
Miss O. Blankenhagen	Mr. & Mrs. J. Manning	Mr. L. Skinner
Mr. R. B. Cameron	Mr. & Mrs. J. McLelland	Mr. K. E. Touse
Mr. R. W. Corefield	The Misses McLelland	Mr. R. Tottenham
Mr. & Mrs. Edington	Mr. & Mrs. G. Pow	Mr. J. Veitch
Mr. & Mrs. M. Gibany	Mrs. J. C. Robertson	Mr. W. H. Vernon
Miss G. Goodson		Mr. U. D. Watso
		Miss H. Wilson

Home arrivals from West Indies, in s.s. *Venezuela*, Plymouth, November 5th:—

Miss & Miss Ball	Mr. A. Davidson	Mr. F. McArdle
Mr. J. W. A. Beaumont	Mr. L. Fabien	Mr. F. McCorry
Mr. & Mrs. T. P. E.	Mr. C. H. Fletcher	Miss D. Melvior
Hunt & family	Mr. & Mrs. J. Grundy	Mr. A. H. Morris
Mrs. F. Colvin	& family	Mr. E. Shephard
Mr. A. R. Crawford	Mr. R. F. Hobbs	Mr. K. Travieso
Mr. G. Gordon Cummins	Mr. J. S. Matthews	Mrs. M. Watson

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
Jamaica	Liverpool	<i>Oranien</i>	Nov. 25
Jamaica	Bristol	<i>Changuinola</i>	" " 28
West Indies	Dover	<i>Venezuela</i>	Dec. 2
B'dos, (Jada, T'dad & D'ara	Liverpool	<i>Candidata</i>	" " 2
B'dos, T'dad & Demerara	Glasgow	<i>Settle</i>	" " 2
B'dos & T'dad	Bristol	<i>Bayano</i>	" " 2
West Indies	London	<i>Speaker</i>	" " 8
B'da, B'has, & Jamaica	Liverpool	<i>Novian</i>	" " 9
West Indies	Plymouth	<i>Marcos</i>	" " 11
Jamaica	Bristol	<i>Patuca</i>	" " 12
B'dos & T'dad	Liverpool	<i>Asian</i>	" " 16
Jamaica	Bristol	<i>Coronado</i>	" " 16
West Indies	Dover	<i>Stuyvesant</i>	" " 16

Demerara & Trinidad	Amsterdam	<i>Commerwijn</i>	Dec. 14
West Indies	Halifax	<i>Chignecto</i>	" " 22
Bermuda	New York	<i>Fort St. George</i>	" " 23
Jamaica	New York	<i>Trives</i>	" " 27
B'da, B'has, J'aca & B. H. das	Halifax	<i>Canadian Forester</i>	" " 28
West Indies	New York	<i>Gutana</i>	" " 29
J'aca & B. H. das	New York	<i>Zacaba</i>	" " 30
Bermuda	New York	<i>Fort St. George</i>	" " 30
Barbados	New York	<i>Vauban</i>	" " 30
G'da, T'dad & Demerara	New York	<i>Maracai</i>	Jan. 2
Bermuda	New York	<i>Fort Victoria</i>	" " 3
West Indies	Halifax	<i>Caritquet</i>	" " 5
Bermuda	New York	<i>Fort St. George</i>	" " 6

EXPORTS FROM THE BRITISH WEST INDIES.

The figures published below, showing the exports of produce from the British West Indies to various dates, have been kindly supplied to The West India Committee by the respective Governments.

	Anti-guis. To Aug. 31	Bar-bados. To Sept. 30	British Guiana To Sept. 30	British Honduras To Sept. 30	Dominica To Sept. 30	Grenada To Sept. 30	Jamaica To Oct. 14	Montserrat To Sept. 30	St. Lucia To Sept. 30	St. Kitts Nevis To Sept. 30	St. Vincent To Sept. 30	Trinidad To Sept. 30
Arrowroot	lbs.											109,661
Asphalt	tons											3,893
Bilata	lbs.		315,702	312,602	2,586		10,885,950		9,687			
Bauxites	tons											
Brucite	tons											
Bithers	galls.											
Cacao	lbs.				567,840	6,672,880	7,299,226	482	1,250,611		116,869	41,674,331
Cassava Starch	lbs.										89,517	
Coco-nuts	Ms.		1,271,378	2,867,910	154,498	550	28,182,714		68,668	321,735	480	13,744,786
Coffee	lbs.		743,995		511		4,441,496		114			329
Copra	lbs.		162,418	122,957		7,897	1,414,731		71,948			250,000
Cotton, M. Galante	lbs.					254,464						44,721
Cotton, Sea Island	lbs.	11,250	178,807					302,524	258	231,877		287,932
Cotton Seed	lbs.	1,700				631,468		268,980		255,350		150
Diamonds	carats		106,354									
Drywoods	tons					800	1,474,082					650
Ginger	lbs.											
Gold	ozs.		7,353									
Ground Nuts	lbs.					100	970,228					
Honey	lbs.					886						
Lime Juice (raw)	galls.	1,040				181,682	9,655	18,083	15,932			12
Lime Juice (concd.)	galls.					118,323	4,713	480	8,342			12
... oil	galls.					28,082	282	82	429			
Lime tetrastate oil	lbs.		3,243			494,482		5,060	4,927			
Limes, Green	brls.					21,407			4,251			
Logwood	tons						100		11,580			9,301
Lumber	feet		104,822		1,075				4,512			
Mahogany	...				4,995,491		1,175					
Manilk	tons	87,941	70	42,594				2,087	141,602	634,380	169,522	113,601
Molasses	galls.		6715,024						285,846		1,620	144,327
Oranges	Ms.			142,123	265,463		4,666,717		684	3,024		
Essential Oils	lbs.				8,420							
Petroleum	galls.							8,432,388				
Pimento	lbs.											
Rice	lbs.		15,286,494									4,192
Rum	...											24,642
Sassa	...											
Shingles	No.	7,703		371,988	3,614			207,868		861		
Sugar	tons		31,931	1,291,350		52,650			18,000			
Sugar	...			59,331					3,791	6,728	61	48,713
Timber	cub. ft.			98,405		80,728		45,813	3,192			

PRODUCE MARKETS SUMMARY.

Telephone—
Minaries 2200-2207.
Telegrams—
"Carib. London."



14, TRINITY SQUARE,
LONDON, E.C. 3.
Nov. 21st, 1922.

BANK RATE. 3 per cent. as from July 12th.

EXCHANGE. Value of the £ Sterling.

	Nov. 7th	Nov. 21st		Nov. 7th	Nov. 21st
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To U.S.A. ...	18 4	18 6	In Spain ...	3 3 2	1 3 1
.. France ...	2 13 0	2 8 6	.. Germany	100 0 0	100 0 0
.. Belgium ...	2 17 3	2 12 0	.. Austria	Nominal	Nominal
.. Italy ...	4 5 4	3 18 0	.. Holland	18 9	18 10

The intrinsic value of the gold sovereign is £1 1s. 7d.

SUGAR. The anti-cyclone in the New York Market recorded in last Summary has continued during the fortnight, yesterday's quotation for Cubans landed, duty paid, being 5.53c., equivalent to 2.75c. c.i.f., or about 3.00c. f.o.b.

Terminal market values were:—December 3.84c., January 3.54c., March 3.36c., May 3.31c.

The Home Market on the fortnight has been slow. Yesterday's values were:—London Granulated, 30/6 spot; American Granulated, 49/9 spot; West Indian Crystallised, 12/- to 15/- spot; White Mauritius, 47/- to 44/6 spot; White Java, 47/9 to 48/2. Cuban 96 deg. for January shipment was quoted at 17/3. Terminal market values were:—White, December, 21/5; January, 21/6; February, 21/5½.

The Board of Trade Returns for October show that the total imports for the month amounted to 167,976 tons, consisting of 32,921 tons of refined and 134,995 tons of unrefined, 12,904 tons of the refined came from Holland, and 5,225 tons from the United States. Of the unrefined, 68,292 tons came from Java, only 7,921 tons from Cuba, 9,079 tons from Peru, 7,380 tons from Brazil, 26,150 tons from Mauritius, and 2,020 tons from the British West Indies. The total imports for the year to October 31st have been 1,635,095 tons, consisting of 433,954 tons of refined, including 32,299 tons from Holland, 25,655 tons from Czecho-Slovakia, and 265,105 tons from the United States, and 1,201,141 tons of unrefined. Of the latter, 125,311 tons came from Java, 626,600 tons from Cuba, 70,875 tons from Peru, 77,875 tons from Brazil, 132,908 tons from Mauritius, and 94,113 tons from the British West Indies.

The amount liberated from bond for consumption during October was 149,693 tons, bringing the ten months' consumption up to 1,534,159 tons, as against 1,159,401 tons for the corresponding period of last year. To the month's consumption the refiners contributed 81,400 tons, making 895,649 tons from this source for the ten months.

The stocks on hand on October 31st were 284,300 tons, consisting of 29,850 tons of foreign refined, 42,150 tons of home refined, and 212,300 tons of unrefined. These figures compare with 278,400 tons on hand on September 30th, consisting of 30,600 tons of foreign refined, 31,500 tons of home refined, and 190,300 tons of unrefined. The exports for the month were 996 tons of home refined and 1,298 tons of re-exports.

RUM. There has been a small spot enquiry, but no further business in rum to arrive is reported.

The quantity of rum imported during the month was 22,000 proof gallons, as against 119,339 gallons for October, 1921. This brings the total imports for the ten months to 1,455,150 gallons, as against 3,822,157 gallons for the corresponding period of last year. The amount re-exported for the month was 23,395 gallons, as against 187,116 gallons in October, 1921. The total re-exports for the ten months have been 353,993 gallons, as against 310,847 for the same months of last year.

The quantity taken out of bond for consumption during the month was 152,917 gallons, as against 171,473 gallons in October last year. The total consumption for the ten

months has been 1,128,316 gallons, as against 1,491,316 gallons for the same period last year. The stocks on hand on October 31st amounted to 10,669,006 gallons, as against 10,931,000 gallons on September 30th.

CACAO generally is a quiet market. A small business in Trinidad on the spot has been done at 63/- to 69/- for fair to fine estates. To arrive is quoted at about 50/- to 52 - s. & c. Small sales of fine Grenada have been made on the spot at 53/-. Export business remains very quiet.

The October imports were 21,142 cwts., as against 37,214 cwts. for October last year. The ten months' imports have been 1,060,368 cwts., practically the same as those of the first ten months of last year, which were 1,008,535 cwts. Imports from the British West India Islands for the month were 1,051 cwts., making 126,054 cwts. for ten months, as against 149,097 cwts. for the corresponding period of last year. The re-exports for the month amounted to 45,790 cwts., as against 93,211 cwts. for October last year, bringing the ten months' re-exports to 319,709 cwts., comparing with 156,179 cwts. for January-October, 1921.

The quantity taken out of bond for consumption during the month was 104,983 cwts., as against 88,759 cwts. in October last year, and the total for the ten months has been 841,785 cwts., as against 759,848 cwts. Stocks on hand on October 31st were 589,000 cwts., as against 689,000 cwts. on September 30th.

ARROWROOT remains slow at 5½d. to 6d. for fine to good manufacturing, and 6d. to 7d. for grocery.

BALATA. West Indian sheet is steady at improved rates. Spot is valued at 2/4, landed London; and for forward positions 3/2 c.i.f. is asked.

COFFEE. There is a fair demand for good home-trade qualities, but export kinds are slow. No Jamaica has been offered during the fortnight, and the quotation for good to fine ordinary is unchanged at 70/- to 75/.

COPRA is steadily firm, with West Indian f.o.b. valued at 225 15s., less 2½ per cent. discount, c.i.f. London.

COTTON. West Indian Sea Island has been in better request without quotable change in values. Medium 22d., fine 29½., and extra fine 35d.

HONEY. There are now only moderate quantities on the spot, and the market shows a healthier tone. Good dark liquid Jamaica is worth about 32/6 to 35/., and dull yellow to fine white set 40/- to 60/- per cwt.

LIME PRODUCTS. Lime Oil. Distilled is dearer with sales at 2/1 for good, and supplies are small. Hand-pressed is neglected. Lime Juice. Raw is quiet, with no business reported. Concentrated is firm, and sales are expected at improved rates.

LOGWOOD is dull, with only a small business passing. The nominal quotation is unchanged.

ORANGE OIL. Sales of Sweet have been made at 7/- c.i.f. Bitter remains unchanged.

RUBBER is quiet but steady, with spot crops and sheet quoted at 1/0½d.

SPICES. The market for Pimento is unchanged, with business doing freely at 17/6 c.i.f. Hamburg. Spot is quiet and valued at 2½d. The demand for Jamaica Ginger on the spot is still extremely limited, and it is difficult to maintain recent quotations. West Indian Nutmegs are unchanged, and fully steady. Mace is also unchanged and steady on the fortnight.

WEATHER TELEGRAMS.

The following cablegrams have been received regarding the weather in the West Indies:—**Barbados** (Messrs. Wilkinson & Cavillor), November 20th: "Fine rains generally throughout the island; crop prospects good." **Demerara** (Messrs. Booker Bros., McCannell & Co., Ltd.), November 21st: "Weather too heavy."

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No. 631

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Membership of The West India Committee is, by the Royal Charter of Incorporation, confined to British subjects. Any members of The West India Committee may propose or second candidates for election. The minimum subscription is £1 1s. or \$5 per annum, and the compounding subscription for life membership for individuals is £10 10s. (\$50.40). The first subscription is payable on election, and annual subscriptions become due on January 1st in each year thereafter. Subscriptions can be forwarded direct to the Secretary, or may be paid in at any branch of the Colonial Bank, the Royal Bank of Canada, the Canadian Bank of Commerce, or the Bank of Nova Scotia.

The West India Committee Rooms.

Telephone:
MUNDINGS 7200-2201.

Telegrams:
CARIB, LONDON.



14, TRINITY SQUARE,
LONDON, E.C. 5.
December 5th, 1922

PELLAGRA IN BARBADOS.

ATTENTION is being concentrated in Barbados on the subject of the increasing mortality from pellagra, the deaths in the medical institutions of the island—the Hospital, the Lunatic Asylum, the Lazaretto, and the Almshouses—from this cause having increased from 123 in 1917 to 238 in 1922. Pellagra is a disease about the causation of which there has been, and still is, a great deal of doubt. It is believed that the malady is in some way connected with nutrition, but there is considerable difference of opinion among medical scientists as to the exciting cause. The general opinion is that some deficiency in diet is at the bottom of it. Observations recently made in the Georgia State Sanatorium, the results of which are published in the United States Public Health Report (1922, No. 9), support this view, the conclusion being drawn that the protein factor alone was concerned in the development of pellagra in

the cases under observation, not necessarily a low biological protein value, but perhaps the want of some special protein combination, or, within narrow limits, special combinations of amino-acids. PROFESSORS ALEXANDRINI and SCALA, who have had the disease under investigation in Italy, have, however, arrived at the conclusion that "soluble"—that is to say, colloidal—silica in a water supply is the cause of the disease, while Dr. PERDUE, of Kansas City, holds the same view, and, indeed, goes further, giving his opinion that the Barbados Government water supply, of which a copy of the analysis was sent to him by Mr. JOSHUA BAEZA, who takes a great interest in the question, was not only pellagragenic by reason of the silica it contained, but also from the presence of other salts which would tend to produce an acid condition. Mr. BAEZA not long ago brought to the notice of the Government medical authorities of Barbados the treatment recommended by PROFESSORS ALEXANDRINI and SCALA, viz., the injection of sodium tri-sulphite to neutralise the acidity produced by the silica, which had been found to give good results in Italy, and so far the results obtained in the St. Michael's Almshouses in Barbados appear to promise success. The reflection on the Government water supply has not passed unchallenged, PROFESSOR d'ALBUQUERQUE drawing attention to the universality of silica, and how "we drink it, in minute quantity, in drinking water, breathe it in the dust of the air, and eat it in our plant and animal food." It is, he says, chemically one of the most inert and inactive of substances, and even when in solution passes through membranes slowly. We presume that the Government water supply of Barbados is much the same in composition as it has been, and if it is the source of the pellagra trouble, the lay mind wonders how it is that pellagra is not more general in Barbados, and why the mortality is increasing, as it appears to be, while the water remains the same. No doubt the matter will be thoroughly gone into by the Barbados doctors, and pending the result of their investigation the case of Baeza v. the Barbados Government Water Supply must be regarded as *sub judice*.

CANE JUICE AND COLLOIDS.

A COMMON source of trouble in cane sugar manufacture is the presence in the juice of fine particles of cane rind and cellular fibre coming from the crushed canes. A considerable amount of debris of the cane escapes from the mill-rolls and falls with the juice into the mill-beds. Modern mills are supplied with mechanical strainers, which separate this debris as far as pos-

sible at this point, but fine particles pass on to the clarification stage, and cause more or less trouble in subsequent working, leading to "gumminess" and trouble with crystallisation. Mr. MAURICE BIRD, the well-known sugar technologist of British Guiana, has for some time held the view that these particles could be separated from the juice by "greening" after heating and before liming, and, according to private advices from the colony, he has, by putting into practice this theory, effected considerable improvement in the clarification of the juice for refining sugar purposes, and in the resulting sugars. In his process the juice is strained in the ordinary way at the mills. It is then heated to 240 deg. Fahr. in a high-pressure heater, from which it is discharged into a receiving box, which disperses the explosive force of the emerging superheated juice. The juice is then, on its way to the liming and subsidiary tanks, strained through fine-mesh strainers, on which a considerable quantity of insoluble matter collects—it may be to the amount of one per cent. of the weight of the canes dealt with. After squeezing, this is returned to the mills, giving no trouble with their work. The heating of the juice evidently has some aggregating effect upon the fine cask-cash particles, and the removal of these before liming obviates the effect which lime possibly has upon them in the direction of producing colloidal bodies, which affect prejudicially the subsequent working of the juice. The question of the removal and the prevention of production of colloid bodies already existing, or formed in the juice during manufacture, looms largely in the future of scientific work in connection with cane sugar manufacture. There is no doubt that the exigencies of modern sugar-cane growing, intensive cultivation, irrigation, and the introduction of new varieties which may or may not be on the same quality level as the older types, coupled with the use of shredders, crushers, and multiple mills, has done much to increase the unpleasant conditions of work resulting from the presence of colloid bodies in the juice. An economic process which would successfully deal with these would constitute a boon to cane sugar manufacturers, and supply the coping stone to the edifice of cane sugar manufacture. So much attention has been paid of late to colloid bodies by research workers, and so much learnt about them, that there is considerable ground for anticipation that something will be done in this direction in the near future. No doubt Mr. R. G. FARNELL, of the Empire Sugar Research Association, who is now in the West Indies, will direct his attention to this subject, and put the special experience he has gained in the laboratory on this side to practical use in connection with cane sugar manufacture.

Mr. R. HARGROVE, who proceeds to Antigua tomorrow *en route* for Tortola to assume the position of Commissioner of the Virgin Islands in succession to Major Peebles, was formerly Resident of the Calabar Province of Nigeria. Latterly Mr. Hargrove has been compiling an official record of the tribal customs and superstitions of the Southern Provinces of Nigeria from the reports of the district officers.

CACAO FREIGHT RATES.

The West India Committee have addressed the letter appearing below to Messrs. Thos. and Jas. Harrison, who have replied to the effect that they are placing it before the Association of West India and Transatlantic Steam Ship Lines:—

Messrs. THOS. AND JAS. HARRISON,
Dock House, Billiter Street.

Dear Sirs,—On July 14th last I wrote to you informing you that my Committee would welcome a reduced rate of freight on cacao, shipped on direct port-to-port bills of lading.

They were given to understand that the extra expense incurred by the granting of optional bills of lading amounted to about 9s. per ton, irrespective of the post-terminal freights, this expense, representing the cost of warehousing and transshipment charges at the terminal port, against which, of course, must be set off the extra freight of 3s. 6d. paid for the privilege of an optional bill of lading.

In the circumstances they considered it not unreasonable to press for a reduction in the direct port-to-port rate. This not having been conceded, my Committee feel compelled once more to call your attention to the excessively high freight rates on cacao from the British West Indies, which they cannot but regard as seriously detrimental to trade. They can see no justification whatever for such charges as those set out below:—

	Equal to per ton net.	
	s.	d.
Trinidad, 75s. per ton (plus 10 per cent. primage treated as a deferred rebate)	75	0
Grenada, St. Georges, 75s. per ton net	75	0
Grenada, St. Andrews, 95s. per ton net	95	0
Grenada, St. Patricks, 101s. per ton net	101	0
Jamaica, 75s. per ton net	75	0

which compare with the following freight rates from West Africa and Brazil:—

West Africa, 50s. per ton, less 10 per cent. deferred rebate... ..	45	0
Bahia, 40s. per 800 kilos, plus 10 per cent. primage, treated as a deferred rebate	50	0

It will be obvious from the above figures that British West Indian cacao is placed at a great disadvantage in respect of freight rates, as compared with British West African and foreign cacao.

I am accordingly to express the hope that you will be so good as to bring this matter before the Association of West India and Transatlantic Steam Ship Lines, with a view to a reduction in the freight rates on cacao at an early date.

I am, Yours faithfully,
ALGERNON ASPINALL,
Secretary.

Among the visitors to The West India Committee Rooms during the past fortnight have been the following:—Mr. F. C. Archer, Mrs. Aspinall, Mr. C. C. Bynoe, Major W. E. Chapman, Mr. Neville Dawson, Mr. W. R. Dunlop, Lord Forteviot, Mr. D. Q. Henriques, Mrs. Leslie, Mr. Duncan Mackintosh, Mr. W. E. Nowell, and Mr. E. C. Stenbridge.

SOME NOTES OF INTEREST.

"C'est contour tout seul ki save ça ki en coeur jormone."

* * *

AUSTRALIA has prohibited the importation of bees and second-hand hives from all countries other than the United States and Canada, with a view to keeping out the "Isle of Wight" disease.

* * *

THE United States not only supplied 62 per cent. of the entire world's production of crude petrol in 1921, but also imported an additional 17 per cent., the latter coming chiefly from Mexico.

* * *

MUCH sympathy will be felt for Mr. and Mrs. James J. Sabey in the loss which they have sustained through the death of their son Andrew, at the age of 84 years, from an illness contracted during the war.

* * *

A 14-ACRE tract of land has been purchased in Louisiana for the purpose of building a village for the employees of neighbouring industries, which, says *Facts about Sugar*, is to be constructed entirely of the megass product, Celotex.

FOR the first time since 1896, the head of the Sovereign appears on the new postage stamps of Trinidad and Tobago, but the emblematic figure of Britannia, which the colony has retained as a stamp device since the issue in 1851, is retained.

By an Order dated November 3rd, the Austrian Government decreed that as from the 9th of that month Customs duties on cane and beet sugar should be paid at the full gold value of the prescribed rates of duty instead of at 90 per cent. of such value as heretofore.

* * *

To replace the defunct *San Fernando Gazette*, the *Weekly Recorder* has been started to cater for the Press requirements of that municipality. THE WEST INDIA COMMITTEE CIRCULAR, which has received No. 1 of the new organ, dated October 28th, wishes success to this example of local enterprise in Trinidad.

* * *

THE Montserrat Fruit and Vegetable Growers' Association has recently been formed at Plymouth, Montserrat, with the object of encouraging the production of fruit and vegetables and marketing them on co-operative lines and under a special brand. The membership fee is 1/3 per quarter, and the price of shares is £1.

* * *

ACCORDING to the *Times*, a freight rate of 32/6 per ton has been indicated by merchants for Java sugar to Europe, with options for the United Kingdom, Mediterranean or Northern Continental ports, but doubts have been expressed as to whether tonnage would be forthcoming on those terms. Tentative enquiries for Cuban sugar on the basis of 10/- per ton for January and February loading.

* * *

FROM an interesting article on the Belgian Congo in the *Board of Trade Journal* it appears that the

shipping traffic between that country and Antwerp forms a monopoly of the *Compagnie Maritime du Congo*. The freight rates are instructive, as shown by the following, expressed in francs per ton:—

Cocoa	...	320	Copra	...	330
Coffee	...	320	Palm Oil	...	162

* * *

DURING the first seven months of the present year, the British West Indian Islands shipped to the United States produce valued at \$9,651,484, whilst their imports from that source during the same period amounted to \$13,199,909. Both these totals represent a decrease on the figures for the corresponding months of 1921, the latter, indeed, by as much as \$6,201,703.

* * *

THE recently harvested cacao crop of the Puerto Plata district of the Dominican Republic is the smallest for many years. Estimated at 35,000,000 lbs., this lowered production is considered by the United States Consul at Puerto Plata to be due to the neglect of the cacao orchards during the last few years, when prices were so low that growers had no money to spend on their upkeep.

* * *

ALTHOUGH the British West Indies are not required by the Canadian Trade Agreement of 1920 to give preferential tariff rates on imported tobacco, they have in fact in many cases done so. Taking the principal four West Indian Colonies, it will be found that the preference on tobacco, cigars, and cigarettes entitled to admission under the British tariff works out as follows:—

Barbados.—From 20 per cent. to 25 per cent., according to class.

British Guiana.—Manufactured, 50 per cent.; in leaf, 12 per cent. to 16 per cent. according to class.

Jamaica.—25 per cent.

Trinidad.—None.

* * *

AN Inter-Island Committee has been appointed to report on the salaries, emoluments, conditions of service, duties and privileges of medical officers in the Windward Islands, and as to the advisability of amalgamating the medical service of the Windward Islands with that of Trinidad. Mr. R. Popham Lobb, C.M.G., is Chairman, and the other members are Hon. J. T. de la Mothe, Hon. Dr. G. W. Paterson, Hon. A. Wellesley Lewis, K.C., Mr. C. F. P. Renwick, Hon. Dr. H. E. Sutherland Richards, Hon. George Williams, Hon. Dr. G. N. Stevens, and Mr. W. M. Grant.

* * *

WHAT is probably the smallest fish in the world is found in the Buhl Lake of the island of Luzon, which forms part of the Philippines. It is called by the natives smarapan, and is the most minute vertebrate animal known, its maximum length being only half an inch. The natives catch these fish in nets of very fine mesh, dry them in a mass in the sun, and, after seasoning them with pepper and other spices, press them into flat round cakes. One of these may contain as many as 3,000 of the fish. Three to four of these cakes form a meal for a man. The eggs are so small that 1,728,000,000 of them go to the cubic inch.

THE Swiss manufacturers of chocolate are, says the *Confectionery Journal*, much perturbed by the news which they have had communicated to them that the British Government has decided to require all Swiss chocolate imported into England to bear the mark, "Made in Switzerland" on each stick. "This will necessitate manufacturers in Switzerland using new moulds so that the resolution may be carried into effect. As Great Britain and the Colonies are now Switzerland's largest chocolate customers, it will be understood that it is to their interest to carry out any resolutions which may be necessary."

* * *

For the eight months ending August 31st of the present year, the United States exported from countries other than her own Colonial possessions 8,043,861,564 lbs. of cane sugar, of which 440,265,499 lbs. were free of duty, represented almost entirely by 441,850,028 lbs. from the Philippines. The bulk of the duty-paying sugar, 7,594,596,065 lbs., was supplied by Cuba; 38,989,288 lbs. came from Central America, and 136,615 lbs. from South America; 3,031,868 lbs. of maple sugar were imported from Canada. The exports for the same period amounted to 1,780,017,259 lbs., of which 592,167,682 lbs. went to the United Kingdom, 336,321,746 lbs. to France, and 105,568,642 lbs. to Germany.

* * *

THE imports of sugar not above 16 D.S. into Canada for the five months April-August were 646,557,584 lbs., of which 47,917,981 lbs. came from British Guiana, 48,662,474 lbs. from Barbados, 62,384,742 lbs. from Jamaica, 98,722,598 lbs. from Trinidad and Tobago, and 20,338,329 lbs. from the rest of the West Indies. The import of cane sugar over 16 D.S. for the same period was 1,704,100 lbs., of which 886,165 lbs. came from Barbados, and 228 lbs. from Jamaica. The exports of Canadian sugar for the same period amounted to 195,740,769 lbs., of which 136,558,900 lbs. went to the United Kingdom. Preferential sugar was 82½ per cent. of the total imports during the period.

* * *

THE Tariff Commission of the United States has now had its functions considerably extended. Under the status conferred upon it by the action of Congress and the order of the President, it remains, says *Facts about Sugar*, as it has been heretofore, primarily a fact-finding organisation. In addition, it now becomes a quasi-judicial body, charged not only with the duty of assembling facts, but also with that of making recommendations based upon those facts. It has, however, no authority to enforce its decisions, but can only recommend action to the Executive. An important feature in its new powers is that evidence submitted shall, upon the order of the Commission, be subject to verification from the books, papers, and records of the parties concerned.

* * *

Of the 213,000 acres of land in Hawaii devoted to sugar cultivation, only one-half of which is cropped annually, 105,000 acres is practically arid

land reclaimed through private enterprise. The reclamation of this land has involved an expenditure of about \$15,000,000 in initial outlay for the construction of ditches, tunnels, flumes and pipelines, reservoirs, pumping plants, surface wells, and electric plants for the generation of power for the pumping plants. A single system for one group of plantations includes about 225 miles of main and lateral ditches, tunnels, etc. There are 111 pumps in operation, with a capacity of 580,000,000 U.S. gallons in 24 hours. Sixty per cent. of the water used on irrigated plantations is pumped, the average life being 181 feet, with a maximum of 550 feet. One acre requires about 5,000,000 gallons of water per crop.

* * *

THE quantities of potable spirits which were taken out of bond for home consumption during the first three quarters of 1920, 1921, and 1922 were:—

	Home-made. Proof gallons.	Imported Proof gallons.
1920 ...	11,980,502	3,803,679
1921 ...	10,297,230	2,295,068
1922 ...	10,016,071	1,724,838

The quantities of home-made spirits warehoused for exportation, and of imported spirits re-exported or delivered for stores, were, during the same periods:—

	Home-made Proof gallons.	Imported Proof gallons.
1920 ...	1,235,127	741,648
1921 ...	792,341	680,369
1922 ...	1,041,484	622,472

* * *

THE Berlin correspondent of *Facts about Sugar* gives an account of the Government scheme for distribution of the domestic sugar, the result of the demand in Germany being so much greater than the supply. All sugar factories under this scheme are to join the *Zuckerwirtschaftselle*, or the Association of the German Sugar Industry, which controls the production, fixes prices, and regulates the distribution of sugar. It is prepared to guarantee 2.75 lbs. of sugar per head of population per month, and the Food Ministry itself will decide what amounts of sugar may be supplied to the industries using sugar. In the meanwhile, the first action of the Government has been the issuing of an order prohibiting deliveries of inland sugar to the latter, which are expected to use imported sugar only. In order to detect if inland sugar has been used illegally in the industries, it is proposed to add 15 grains of phenolphthalein to every 220 lbs. of home-produced sugar, which is harmless in itself and is readily detected by the crimson colour it gives on the addition of carbonate of soda, even in minute quantities.

SWEET POTATO WIGS.—1 lb. of yellow grated potato, mixed with half a pint of water, a little leaven or a gill of yeast, and a teaspoonful of sugar. Add 2 ozs. butter, ¼ lb. sugar, 3 eggs, leaving out one white, and some caraway seeds, make a soft mixture with flour, let the seeds rise, and then bake.

West Indian recipes for publication in this column will be welcomed by the Editor.

BARBADOS INCOME-TAX.**Taxation of Agents' Turnover.**

The policy recently adopted in Trinidad of assessing non-resident companies for income-tax on the basis of an assumed income on the part of their agent of an amount not exceeding 10 per cent. of turnover, has caused considerable dissatisfaction among British manufacturers, especially in view of the wide definition of cases where liability exists, a non-resident company being "deemed to be trading within the Colony in every case where his recognised agent or other representative resident in the Colony sells in the Colony the goods of such non-resident person, whether the contract for the sale of the goods, the delivery thereof, or the payment therefor, is made within or out of the Colony."—(Ordinance No. 8, of 1922, Sections No. 24-28.)

An attempt to introduce similar provisions into a Bill amending the Income-Tax Law of Barbados, was decisively rejected in Committee of the House of Assembly of that Colony, on October 24th.

Mr. H. W. Reece, K.C., the Acting Attorney-General, who was piloting the measure through the House, himself proposed the omission of the obnoxious section on the grounds that it would not be worth the trouble to working it, and that it was found very unsatisfactory in Trinidad.

Mr. S. C. Thorne thought that if the section was eliminated, a foreign company would be able to evade payment by having an agent instead of a branch.

Mr. C. W. Haynes said that in the case of Trinidad the overseas companies had given out that if the tax was imposed in this way they would stop doing business and their representatives would be taken away, in which case income-tax on the representatives would be lost.

Mr. Reece said that a foreign firm might have its agent here to sell its goods, but the goods might never be stocked here. The agent might only be writing up business. As the law stood that foreign firm was not taxable because the contract was not made in Barbados but in England or elsewhere. In that case it was going out of the way to tax people when business was not done here. It was not business done locally and it was unfair to tax that type of business at all. Far from improving business, it would have the effect of hampering business.

Mr. H. G. Yearwood said that the distributor was the man who was going to pay the tax. The fact that the agent was going to get the order did not mean that there was any difference in the amount of tax to be paid when the same quantity of goods was imported direct from the same source. If the man was only getting the business the profit was not made there at all. The profit was only made when the business was being distributed. And in the result they would be actually losing the tax on the commission here because the firm would cease to employ the agent and allow importations to be made from them direct.

To obviate the removal of their names from the mailing list for the CIRCULAR, the few members of The West India Committee who have not yet paid their subscription for the current year are requested to do so at once.

BRITISH EMPIRE EXHIBITION.**Representative to Tour West Indies.**

Mr. R. Rutherford presided on November 29th at the second meeting of the West Indian and Atlantic Group Committee, held in The West India Committee Rooms. The following other representatives attended:—

Mr. Algernon Aspinall, C.M.G. (Windward Islands); Mr. Frank Barnard (St. Lucia); Mr. Ernest H. Brown (St. Vincent); Mr. R. Bryson (Leeward Islands); Lieut.-Colonel Ivan Davson, O.B.E. (British Guiana); Sir Walter Egerton, K.C.M.G. and Mr. P. H. Ezechiel (Colonial Office); Mr. W. Fawcett, B.Sc. (Jamaica); Sir William Grey-Wilson, K.C.M.G., K.B.E., (Bahamas); Mr. Cyril Gurney (Grenada); Sir Eye Hutson, K.C.M.G. (British Honduras); Mr. E. D. Lohrle, I.S.O. (St. Lucia); Sir George R. Le Hunte, G.C.M.G. (Trinidad); Mr. Vere Paeke (Falkland Islands); Mr. Boswell Tucker (Bermuda); with Mr. Kendall representing the British Empire Exhibition.

A letter was read from Mr. J. Scott, who stated on behalf of the Exhibition authorities that the suggestion of the Group at their first meeting that a representative should be sent to the West Indies had been submitted to the Management Committee, who were of opinion that it should be complied with, the selection of the representative being left to the Chairman of the Management Committee. It might, however, not be Major Belcher, who only returned that week from his Dominion tour.

The question of the cost of a suitable building for the Group having been discussed, it was agreed to appoint a small Sub-Committee of two to settle the terms of a letter it was proposed to send to each of the Governors of the colonies concerned, giving particulars of the contribution it was hoped to receive from the colony under his administration.

It was decided that the work of the Group Committee would be facilitated if a Commissioner in London were appointed to co-ordinate the work of the representatives. On the motion of the Chairman, seconded by Mr. Ezechiel, Mr. Aspinall was unanimously appointed to fill this position.

For the period January 1st to October 21st of the current year, 10,554,608 stems of bananas were exported from Jamaica, as compared with 8,870,225 stems for the same period of last year. The many operations that were necessary to produce this large total included planting, irrigation and drainage, cultivation after planting, pruning and treatment of suckers, harvesting and replanting.

Planters and others interested in the banana, once referred to in Parliament as "... the common object of the coster's barrow," will find invaluable information regarding the above processes (and much instruction on soils, fertilisers, and insect pests) in "The Banana, its Cultivation, Distribution and Commercial Uses," by William Fawcett, B.Sc.

Copies of this book may be obtained from the Sales Department, The West India Committee, 14, Trinity Square, London, E.C., for 16/- post free.

IS FRANCE GIVING BOUNTIES?

How Tax Certificates Change Hands.

IN THE WEST INDIA COMMITTEE CIRCULAR of October 26th attention was called to a method of juggling with certificates of payment of taxes whereby exporters of sugar in France were managing to secure a form of indirect bounty.

The *Journal des Fabricants de Sucre*, of November 18th, gives some further particulars regarding the system which is being followed. Says our contemporary: "A considerable discussion has been going on here as to our exports of sugar. Most of our brokers severely condemn the operation as being contrary to the interests of the country and one important refiner, Say, who was said to have conducted such business, has written to us formally denying it. It is possible of course that their sugars have been exported without their actually taking part in the transaction.

"Much interest has been taken in this question of exports; let us look for a moment how the business works out. We are dealing, of course, with our No. 3.

"At our present quotations business is no longer possible without a loss, but this was by no means the case a few weeks ago, and we will take October 7th, giving round figures only. Our market price at the factory then was 135 francs, to which we have to add the consumption duty, fr. 50.55, cost of transport, etc., to London, say, fr. 10, c.i.f. price, London per 100 kilos, fr. 197.55, sale price in London, say, 21s., at the exchange of fr. 58 to the pound sterling, fr. 120; loss fr. 75.55 per 100 kilos, quite an appreciable amount per ton, which is recouped in the following fashion.

"Sale of Certificat d'Admission Temporaire to refiners, let us say fr. 90, profit fr. 14.45 per 100 kilos. Not much in these days, perhaps, but an amount which would have been considered a very high profit pre-war. Why can these certificates be sold for fr. 90 when only fr. 30.55 duty has been actually paid? Well, that is where the little 'hankey-pankey' business (legal or not) comes in, because the refiners can use these exportation certificates to pay fr. 100 worth of duty to the Government, therefore, if they have only paid fr. 90 for them they have another clean profit (at the expense of the nation) of fr. 10 per 100 kilos, or fr. 100 per ton, also an appreciable amount to drop into one's mouth, kind of unbeknown.

"We are told that the transaction under existing legislation is perfectly legal, but it is obvious that these Certificats d'Entrepot Temporaire were only meant to facilitate re-exportation of raw foreign sugars, refined here, and not to impoverish the country by sending abroad our home-produced crystals."

SUBSCRIPTIONS to The West India Committee became renewable on January 1st last.

COPIES of "The Manufacture of Cane Sugar" can be obtained at The West India Committee Rooms, price 25s. each, or 26s. post free.

GERMAN SUGAR PROSPECTS.

No Sugar to Export for ten years.

Germany will never again be able to export 1,000,000 tons of sugar, as she did before the War. This is the view expressed in a report by Mr. Alfred P. Dennis, the special representative in Europe of the United States Department of Commerce, who predicts that in 10 years from now perhaps Germany may have a surplus of 500,000 tons, but that for the immediate future she will have all she can do to supply immediate needs.

Mr. Dennis supplies the reasons which have led him to form this opinion. This is how he analyses the situation. Within the territory turned over to Poland by Germany under the terms of the peace settlement were 296,400 acres of beet-sugar land. Indeed, some of the best beet-sugar soil of the old empire was in the Posen region and the so-called Danzig corridor. With the territory there passed also to Polish control two sugar refineries and upwards of thirty sugar factories. Experts estimate that 700,000 tons of potential sugar production has been lost to Germany by territorial cession out of the 2,700,000 tons of pre-war sugar capacity. As a matter of fact, the amount of sugar actually produced in 1918, on soil turned over to Poland, may be estimated at 450,000 tons. It is hardly fair to conclude that Germany has lost as much as 700,000 tons of sugar-producing capacity, inasmuch as this higher figure represents the potential rather than the actual production at the outbreak of the war. The point may be made that the change in frontier has not necessarily lessened the European pool of sugar wealth. In other words, is not Poland's productive power increased in like measure with the losses sustained by Germany through cession of beet-sugar land? Such expectations have not been justified by results. In the 1920-21 campaign, Poland produced on former Prussian soil 102,733 tons, and last season only 95,992 tons—this in comparison with 450,000 tons produced in the same area in 1918 under German control. Probably no other agricultural industry the world over was so highly organised as the German sugar industry.

Aside from territorial losses, beet growing has been further curtailed in the area now included in Germany, the acreage having fallen in the post-war period about 21 per cent., while yields per acre have fallen off approximately 90 per cent. The area now under beet cultivation is 8.3 per cent. larger than last year, with an outlook for an increased crop of 200,000 to 250,000 tons. The improvement over last year, while due in some measure to increased acreage, is principally accounted for by more reasonable conditions. Last year's severe drought caused a short crop of beets, although increasing the unit sugar content. The two main factors that check rising production are labour difficulties and soil deteriorations.

The latter Mr. Dennis attributes to reduced importation of oil cake and phosphatic fertilisers.

While German production has thus been declining, consumption at present shows a distinct

tendency towards expansion. German sugar consumption is now approximately 1,450,000 tons per year. If 10.5 per cent. is added for population lost through the peace settlement, present-day consumption is just about on a par with pre-war, or the equivalent of 1,600,000 tons. It may be considered remarkable that the consumption of a relatively high-priced, condensed food such as sugar should be maintained at a time when severe curtailment is being made in German food consumption. Even in England the consumption of sugar has not risen to pre-war levels, the figures showing 1,732,000 tons for 1913, and 1,500,000 tons estimated for 1922. The explanation of increasing sugar consumption in the case of Germany is found mainly in the shortage of animal fats and meats. With milk production ranging at only about 30 per cent. of normal, and with butter extremely scarce and high priced, jams, marmalades, and artificial honey spread on bread are being used as substitutes for butter, margarine, lard, and other animal fats. Owing to the meat scarcity nearly all classes are eating more chocolate. The workmen in the factories take along a bit of chocolate in the place of meat as an item in their mid-day lunch. Artificial honey is made from refined sugar, of which about 40,000 tons is being used annually for this purpose. Assuming that the production of sugar in the coming campaign will exceed that of last year by 250,000 tons, which is doubtful, the entire out-turn will not surpass the actual consumptive needs of the country. Even if the highest hopes are anticipated and a crop of 1,550,000 tons is realised,* the country will still be 1,000,000 tons short of the average pre-war production.

The question of how capable Germany is of recovering her former export capacity is purely and simply a matter of speculation. At the same time an intelligent forecast may be made as to the future development of the German sugar industry. It is clear that the consuming needs of the country are not short of 1,450,000 tons at the present time, while recent productive capacity has been somewhat below this level. Putting the yields for the autumn campaign at 1,550,000 tons, it may be assumed that no surplus will be available for export from the coming crop. Even if there were added to the coming crop the 450,000 tons lost through the transfers to Poland, there remains a gap of 600,000 or 700,000 tons to be made up by Germany as at present constituted before it can arrive at pre-war productive capacity.

It is, however, worthy of note that the country possesses sufficient factories and refineries at present to handle 30 to 40 per cent. more beets than are being produced. The difficulty, Mr. Dennis concludes, is with the agricultural rather than with the manufacturing side of production.

The manufacture of Cane Sugar by Jones & Scard is obtainable at The West India Committee Rooms, 14, Trinity Square, London, E.C. Post free 26/-. It is indispensable to all connected with the sugar industry.

* It is only fair to state that Herr Licht's latest estimate puts the 1922-23 crop at 1,600,000 tons—EDITOR.

SUGAR IN AMERICA.

Effects of the Emergency Tariff.

The Tariff Commission of the United States has issued a statement summarising its conclusions as to the effect of the Emergency Tariff Law of 1921, on the prices of various commodities.

As to sugar, the report says that the outstanding feature of the sugar trade in the summer of 1921 was the surplus of raws in Cuba. This amounted to nearly two million tons as compared with normal stocks of about one-half million tons. The surplus, equal to almost half the annual American consumption, had a serious effect on prices. A drop from 5 cents per pound for Cuban raws ex duty in March, 1921, to 1.8 cents per pound in December demoralised the whole sugar trade and led to strong pressure for an increase in sugar duties. The decline in Cuban prices was followed by a similar though less rapid decline in New York prices of Cuban sugar, duty paid. The difference in the two quotations was almost exactly the amount of the freight and duty both before and after the enactment of the Emergency law, but Cuban prices declined so precipitously that the producers, rather than the American consumers, seem to have borne the full effect of the duty. This situation came about because of the Cuban surplus which had to be marketed in the United States, and probably the condition will be changed when the surplus disappears.

The Commission conclude by stating that the duties in the Emergency law did not substantially raise the price of the enumerated articles, but rather tended to prevent in the case of certain commodities so great a fall in prices as took place in competing countries for similar articles. Because of surplus stocks the duties often had peculiar effects on prices, and few conclusions can safely be drawn as to the effects of a permanent tariff law from the brief operations of the Emergency Act.

BAHIA'S CACAO EXPORTS.

Exports of cacao from Bahia for the first six months of the present year amounted to 221,567 bags of 132 lbs. each, as compared with 425,477 bags for the same period of 1921, according to a Consular Report (August 12th), published in the American Commerce Reports. In the first six months of 1922, the United States imported 107,067 bags of cacao from Bahia; Germany, 32,520 bags; Buenos Aires, 16,010 bags; and Belgium, 15,683 bags. With the exception of 6,895 bags which were exported to southern Brazil, the remainder of the cacao exported from Bahia went to European countries. The estimates for the amount of cacao that will have been shipped from Bahia during the latter half of the present year are 400,000 bags, about half of which is destined for the United States.

TRINIDAD'S FINANCES.

The Need for the Axe.

In laying his estimates before the Legislative Council for the first time, the Governor has written a minute, in which he shows unmistakably the seriousness of the present financial position and the necessity for a change of policy. Sir Samuel Wilson states that the expenditure of the Colony, which in 1917 amounted to £1,097,695, was in 1920 £1,652,396; in 1921 £2,074,926; and for the current year the revised estimate of expenditure amounts to no less a sum than £2,097,677, in spite of the fact that, as the result of the labours of the Economy Committee which the Governor appointed soon after his arrival in the Colony, the proposed expenditure for the year was curtailed to the extent of £75,000, an amount which was the maximum that could be saved owing to the expenditure to which Departments were already committed when the Economy Committee commenced its labours.

The revenue in 1917 amounted to £1,098,183; in 1920 to £1,917,743; in 1921 to £1,867,944; and for the current year it is estimated that it will not exceed £1,735,000.

The above figures speak for themselves and it will be seen that while the expenditure of the Colony has practically doubled since the year 1917, the revenue likely to be collected in the current year will only show an increase of about 65 per cent. as compared with that collected in 1917. Indeed it was only in 1920, which must be regarded as a most abnormal year, that the revenue ever approached a £2,000,000 figure which one might almost say has in the last year or two become the normal expenditure of the Colony.

In fact, as in many other parts of the world, war conditions appear to have resulted in an annual expenditure such as would in ordinary times never have been contemplated and the result has been that for the last two years the Colony has had to budget for a deficit. In other words, the inordinate expenditure since 1920 has had to be met by drawing in the surplus revenue raised during what may be termed as a most abnormal and prosperous period, when the values of the staple industries of the Colony rose to fictitious heights such as had never been dreamt of before.

The Governor feels it his duty, therefore, to take this opportunity of reminding those who still do not appear to appreciate the necessity for a change of policy, of the vital need for postponing for the time being some of the schemes of development started when times were very much more prosperous than they are to-day.

It is very repugnant to the Governor, within such a short time of his arrival in the Colony, to have to stop for want of funds certain public works the completion of which is so badly needed: and to incur the risk at the same time of causing unemployment. He feels, however, that he would be failing in his duty if he did not do so until such time as the financial conditions improve, and until

he can still further reduce the normal recurrent expenditure of the Colony, which, in the last few years, has increased by leaps and bounds. The Governor has, however, every intention of resuming some of the more important works in question, so soon as funds become available either from annual revenue, or from any saving that can be effected in loan expenditure or other works: and with this object in view he proposes to re-assemble the Development Committee at an early date so that they can advise him as to the comparative urgency of the various schemes recommended by them, when conditions were very different to what they are to-day.

It is also with the greatest reluctance that the Governor has been forced to impose additional taxation so soon after his arrival in the Colony. He has hoped against hope that it might be practicable to meet the present emergency entirely by a curtailment of expenditure, but he regrets to say that this has been found impossible, due firstly to the fact that the expenditure to which Departments were already committed did not allow of any drastic curtailment in expenditure being made during the current year, and secondly to the revenue under practically all heads falling far short of what was anticipated when the Estimates were being compiled in 1921.

The revised Estimate of Revenue for 1922 is £1,701,071 as compared with the Estimate of £1,837,667: while, in spite of expenditure to the extent of £75,000 having been stopped as the result of the labours of the Economy Committee, the revised estimate of expenditure for the year is £2,097,677 as against the original estimate of £1,928,006. It will thus be seen that the estimated deficit on the year's working will be £336,006 instead of £85,000 as originally anticipated.

The fall in the revenue is principally accounted for by deficits in the amounts which it is now estimated will be collected from customs duties; licences; fees of court and office; railway; land sales and royalties on asphalt and oil; while the increase in expenditure has been caused by a refund of £80,000 under the Income Tax Ordinance, No. 85 of 1921, additional to the £80,000 included in the original estimates of expenditure, by revotes to the extent of £59,306, and by supplementary votes aggregating some £60,000, and including one of £28,000 for the railway.

It thus comes about that on December 31st, 1922, there is likely to be, so far as can be foreseen, a deficit in the accounts of the Colony of £121,101 instead of a surplus balance of £121,512 as calculated when the estimates were compiled; or in other words, if the £50,000 shown in the reserved surplus in the estimates for 1922 is absorbed, there will be so far as can be foreseen a net deficit at the end of the current year of about £71,000 which has had to be provided for in budgeting for 1923.

Copies of "The Manufacture of Cane Sugar," by Jones and Seard, can be obtained from The West India Committee Rooms, 14, Trinity Square, price 2s/- post free.

A NEW ROUTE TO JAMAICA

The P.S.N. Company's Enterprise.

A new route to Jamaica will be afforded early in the New Year by the Pacific Steam Navigation Company, whose Board has decided that their steamers scheduled to sail from Liverpool to Valparaiso via the Panama Canal in January and February next shall call at Kingston, Jamaica. These steamers have for some years sailed from Liverpool to the West Coast of South America via Havana, and the additional call at Jamaica will no doubt be greatly appreciated, and should assist materially towards securing the development of the tourist business between the United Kingdom and that island, which is so greatly to be desired.

The sailings at present advertised are those of the *Oriana* and *Orcoma*, which will leave Liverpool on January 25th and February 22nd next respectively. The homeward calls by the same line at present arranged are those of the *Ortega* and *Oriana*, the former leaving Kingston for Liverpool on March 10th, and the latter on March 27th. Further particulars regarding these sailings can be obtained from the offices of the Pacific Steam Navigation Company, whose address is Goree, Water Street, Liverpool,

or at The West India Committee Rooms, where the staff is glad to give information to intending visitors to the British West Indies.

In this connection it is with satisfaction that the CIRCULAR is able to announce that the New Year will bring with it cheaper facilities for travelling to and from the West Indies.

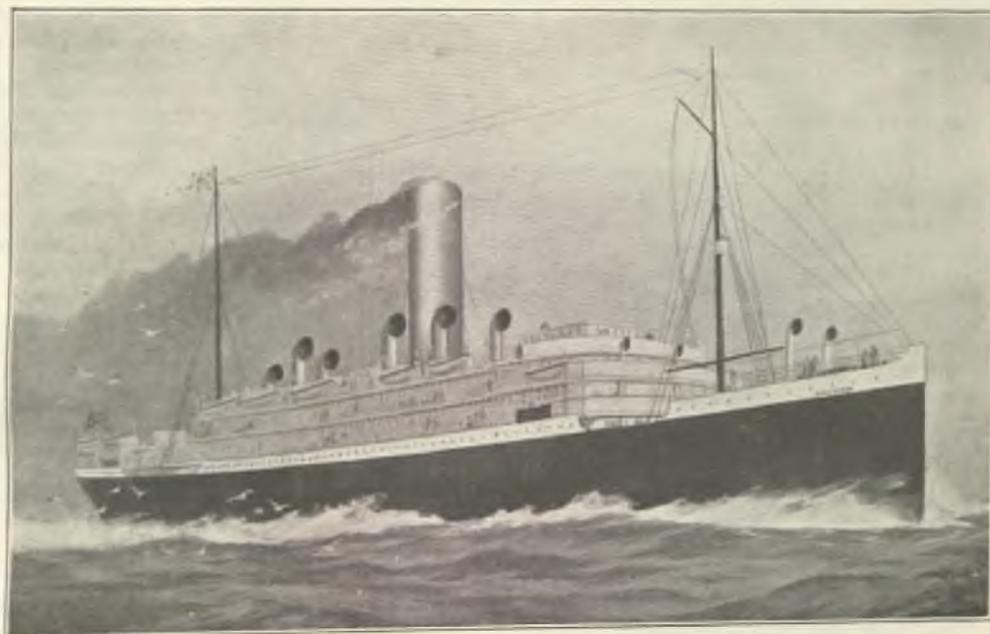
Reduced fares to and from Barbados, Trinidad, and Demerara, are foreshadowed by the Harrison Line and Elders & Fyffes, Ltd., who will make a cut of £5 off the passage rates in the New Year. This will mean that the fares to and from the above-named colonies will be in the case of Barbados and Trinidad £45, and in that of Demerara £50.

Meanwhile, the two firms have issued a leaflet calling attention to their Round Tours at reduced rates. The joint service maintained by the *Ingoma* and *Intaba* of the first-named line, and the *Bayano* and other well-known vessels of Elders & Fyffes will give passengers the option of making a round

(Continued at foot of next column.)

COTTON GROWING IN AUSTRALIA

Some time ago the Empire Cotton Growing Corporation received a request from the Queensland Government that they would provide an expert to advise them generally in the development of cotton growing in that State. The corporation considered that this was a direction in which they might render assistance, since in their opinion expert advice in scientific agricultural practice and in the organisation of the industry is essential in order to establish on a firm basis the production



The R.M.S. "Orcoma"

This fine vessel of 11,571 tons is one of two which will visit Jamaica next year on their way to the West Coast of South America.

of cotton of a sufficiently high quality to make its cultivation an economic proposition in Australia.

The corporation now announce that they have secured the services of Lieutenant-Colonel G. Evans, C.I.E., who has accepted appointment under the corporation on an agreement for three years; it is hoped that he will leave for Queensland at the end of December. Mr. Evans was recently Director of Agriculture, Bengal, where he had general control of all the cotton work. He formerly held the post of Principal of the Agricultural College, Nagpur.

cruise or breaking the voyage at one or more port or ports, continuing the tour by any subsequent steamer or steamers, but not later than the *Motagua* (or *Patuca*) due to arrive at Avonmouth on April 9th, 1923.

The fares for the round trip vary from £75 to Jamaica and back direct, and £80 to Barbados and Trinidad and back, to £90 including Demerara.

THE AFRICAN CACAO CROP.

Despite the unusually heavy rains at the time of ripening, the cacao crop of 1922 is reported to be promising, and a record output for the Gold Coast is anticipated. It is, indeed, believed that the maximum output of 200,000 tons foreshadowed for that colony is on the way to being reached at an early date. *African Industries*, of November 25th, suggests that this may be a recurrence of the official optimism which quoted this tonnage a year ago as actual, and not potential, yield. In Nigeria cacao is a side-line compared to ground nuts and to palm produce. In the Gold Coast it is the mainstay of the revenue. Exports, however, from Nigeria are increasing in promising ratio, and buyers for the great chocolate firms in Great Britain are now getting busy in both Nigeria and the Gold Coast.

Under the stimulus of the energetic Governor of the Gold Coast, much has been done by the Agricultural Department in the way of educating the peasant farmer not only in the best cultural methods, but in the very important processes of fermentation and drying of the bean. The conservatism of farmers is a byword in England: and the African cultivator is no less difficult to move out of the rut than his European brother of the plough. Some doubt has been thrown on the accuracy of the official figures (on the Gold Coast) of the amount of cacao allowed to waste for want of adequate transport. Mr. Cort showed recently that, if the tonnage of wasted cacao was correct, over 65,000 people allowed their labour to be thrown away. This, says our contemporary, would be very foreign to the thrifty and economical people to whom it applies. By hook or by crook the cacao farmer will secure some return for his toil in production, and Mr. Cort's contentions might well be followed up if the correctness of the official estimate is to be upheld.

The Gold Coast has practically all its eggs in one basket; and if the price to the native cacao producer becomes such as to discourage cultivation, or to let the product run to waste, policy certainly dictates that the process should be stopped. Our contemporary considers that the only remedy lies in the provision of cheap and efficient transport in those localities where at present it does not pay to bring produce to a buying centre.

MESSRS. SIFTON, PRAED AND CO., LTD., of the Map House, St. James's Street, announce for early publication, a new edition of "The Pocket Guide to the West Indies." This work has been entirely rewritten and will be furnished with a new set of maps specially prepared for it by Mr. A. J. Sifton, F.R.G.S.

THE American seaplane *Sampaio Correia II*, reached British Guiana, on November 22nd, from Trinidad, in the course of its prolonged voyage from New York to Rio de Janeiro. It is the first aircraft to fly from North to South America, and it will be recalled that the seaplane was held up in Trinidad for a considerable period owing to a breakdown.

A COCOA SCARE.

Mr. Rowntree's Reassuring Statement.

"The public and publicans now are in fear
Of arsenic present to poison their beer."

So sang a late lamented comedian, some years ago, when a scare arose through the discovery of minute traces of arsenic in beer. He added that "though beer had been dropped by the bibulous sect," they had "taken to whisky instead," and had got a "little bit farther on."

Now cocoa has been declared suspect; but no such drastic change of beverage as that referred to above should be necessary since Mr. H. Seebohm Rowntree has issued a reassuring statement which should obviate panic. It seems that in seven samples of cocoa the chief sanitary inspector of the Reigate Council found 1-75th grain of arsenic. The cocoa was traced to Messrs. Rowntree & Co., and in the statement above referred to, which was published in the *Daily Mail* of November 29th, Mr. Rowntree is reported to have said:—

"The first intimation of any traces of arsenic in certain loose cocoas supplied by us was in July last. We have always taken such scrupulous care to secure the highest possible purity in our goods that we were at a loss to understand what had occurred.

"Everything used in the course of manufacture of the cocoa was subjected to a thorough analysis, a large staff of chemists working day and night. Eventually the trouble was traced to the alkali used to render the cocoa soluble. This alkali had been supplied to us for food purposes from highly reputable sources.

"The most careful investigation showed that the quantity of arsenic discovered was so small that it could do no harm whatever to the most confirmed cocoa drinkers. Nevertheless, we at once instituted a process which obviated using this class of alkali, and we sacrificed all our existing stocks of the cocoa.

"Ever since then we have used this different kind of alkali, and to make doubly sure analyses of the output have been made twice every day. On our own initiative we have supplied the Ministry of Health with particulars of the steps we have taken."

A pamphlet on the cultivation of rice as carried on in Sierra Leone has been published by the Agricultural Department of the Colony. It has all along been stated that Africans, without tillage, without weeding, without artificial irrigation, and with continual cropping extending over 30 years were getting as high as 4,000 lbs. to the acre of swamp land. In order to put the statement to the test in 1920, two Indian rice cultivators were, at the suggestion of the Governor, Mr. R. J. Wilkinson, C.M.G., sent out to study the local conditions of the rice cultivation. These investigators closely enquired into the methods employed and the results obtained, and the yield of the Searcies deltaic swamp was found to vary from 1,000 to 4,000 lbs. per acre, equal to that of good delta land in India.

THE WINDWARD ISLANDS.

Confederation with Trinidad?

An important pronouncement on the scheme advocated by Mr. Wood for a closer association between the Windward Islands and Trinidad was made by the Governor of the Windward Islands at a meeting of the Legislative Council of St. Vincent on October 13th.

His Excellency is reported by the *Sentry* of October 27th as stating that he doubted very much if there would be any great advantages in confederation. At the same time, the Secretary of State had decided that the public of these islands should be consulted as to whether it was feasible or advantageous for the Windward group to be confederated with the larger colony of Trinidad. He wished to emphasise the fact that the Secretary of State would decidedly not proceed with the suggestion unless he were convinced that local opinion in the three islands was strongly in favour of it, or, in other words, not opposed. At present he was unable to place before the Honourable Members the *pros* and *cons* of the case. It would be necessary for him to confer with the Governor of Trinidad on the different points, after which it was his intention to meet the newly elected Council of St. Vincent, probably bringing the scheme forward in the form of a Government motion, when members would have the opportunity to express the views of the community on the subject.

followed by other officers with exaggerated titles—where would the colony come in? The Secretary of State would not tolerate defederation. If he were in St. Vincent as a taxpayer, he would agitate for a Commissioner and a Police Magistrate—that was what was wanted. It must be remembered that if they were attached to Trinidad instead of Grenada, he doubted very much if expenditure would be appreciably less, because the Governor's salary would have to be increased on



(By courtesy of)

The Banana Special.

(The Banana Budget)

This train is composed of thirty vans built expressly for the conveyance of bananas by the North-Eastern Railway.

account of the added responsibilities, and there would have to be an Assistant Colonial Secretary in Trinidad to look after the Windward Islands work. The advantage they would derive would be that they would be connected with a much larger colony than Grenada. Trade might improve, because there would be a wider market for their goods, but any commerce with Trinidad was out of the question without better communications. Departments that would gain by the change were the Public Works, Police, Judicial, and Medical Departments. He hoped to come again in the New Year, when electives would be able to give him their considered opinion.

A "BANANA SPECIAL."

A special train of the North-Eastern Railway, consisting of 35 of the latest banana vans, was recently stopped at signals no less than half-a-dozen times between Hull and London because it was thought that the train was on fire. The unusual sight of a goods train giving off clouds of vapour evidently led the signalman into this belief. Some

idea is given of what the British railways are doing for the banana traffic when it is stated that this year alone no less a sum than £151,000 has been expended on the construction of new vans and re-conditioning those already in commission, with a view to eliminating altogether the risk of the fruit becoming chilled during winter travel.



How Bananas Travel.

By means of the special vans shown in this and the other photograph on this page, the fruit is kept at a suitable temperature throughout the longest railway journey.

After reading the relevant sections of Mr. Wood's report, His Excellency went on to say that the Honourable Members would see that it all tended towards confederation. He was aware that a certain element—he did not know how large or how small it was—were angling for *defederation*. They must put that aside at once. To have a Governor in each island, followed by a Colonial Secretary,

WEST INDIAN REPRESENTATION.

A Trade Commissioner in London?

The West India Committee figured prominently in a discussion at the Trinidad Chamber of Commerce meeting on October 25th on the question of a West Indian Trade Commissioner being appointed in the United Kingdom. It was eventually resolved unanimously that The West India Committee should be asked for their "fullest and frankest views" on the subject.

A Select Committee of the Chamber, to which under the chairmanship of Mr. A. V. Stollmeyer, and comprising also Mr. J. Forbes, Mr. Fred G. Grant and Mr. D. McBride, the matter had been referred, reported in favour of such a post being created, stating that the B.W.I. had much to gain from the appointment of an efficient Trade Commissioner in the United Kingdom, not with a view to merely popularising a few agricultural products, but also in order to attract capital and tourists. Nobody could claim that there was nothing for a Trade Commissioner to do with regard to some even of the *major products* of the West Indies, such as sugar and cacao. There could be no doubt as to his value in the case of *minor products*, for example limes, balata, bamboo and cassava. Manufacturers were constantly seeking for new sources of their raw materials. "It may be claimed" (the Report continued) "that The West India Committee and the West Indian merchants in London together fulfil the duties of a Trade Commissioner. . . . The West India Committee is undoubtedly an important body, and in no respect more so than in its relations to the Colonial Office. In other ways its publicity work is limited by its financial resources." The Report went on to say that a contribution from the Colony of £1,000 to £1,250 per annum towards the establishment of a Trade Commissioner's office would be amply justified. As an alternative measure The West India Committee should be invited to formulate a scheme whereby "they will undertake increased publicity work, dissemination of West Indian news to the various publications, the exhibition of samples, and some of the other duties of the Trade Commissioner in return for a contribution from the various Colonial Governments." For this they might expect to receive a yearly subsidy of, say, £1,500.

Mr. Farnum stated that in the United Kingdom the small retail shops were very large consumers of West Indian cocoa, bananas, limes, etc., but he did not think that up to now The West India Committee had given any notice to people of that sort. They must get Barbados and British Guiana to join any scheme put forward.

Mr. Freeman, Director of Agriculture, recalled a visit to Australia House and explained what was done there. Mr. Fitt suggested that one of the bigger Dominions might find room for the office of the West Indian Trade Commissioner.

Mr. Stollmeyer said the Committee's first recommendation was impossible at present. The West India Committee should, however, be approached with a view to its having an extra room for a West Indian display, if the colonies paid £1,500. "The new office of the West India Committee," he continued, "is even obscure, and he thought that a Trade Commissioner's (Continued at foot of next column.)

THE EARNINGS OF THE COW.

Mr. May's very Timely Suggestions.

"A good cow greatly lessens the living expenses for those who are in a position to keep one. This is especially noticeable in Porto Rico, where it is so difficult to get good clean milk. Nature has done everything to favour cattle production, and milk, butter and cheese can be produced in Porto Rico at a much lower cost than in the United States, where grass grows for only part of the year. The importation of dairy products during the past fiscal year amounted to \$1,710,582.00, distributed as follows: Butter \$423,791, cheese \$886,571, milk \$450,180. Instead of sending this large sum abroad, Porto Rico ought to export dairy products. Labour in the island is cheap; so cheap, in fact, that a good cow will earn more in a year than a farm labourer. With elephant grass and velvet beans, milk can be produced in Porto Rico as cheaply as in any other country."

The above is a "timely suggestion" made by Mr. D. W. May in the Agricultural Extension Notes broadcasted by the Porto Rico Experiment Station at Mayaguez. Continuing his forceful appeal for the development of the keeping of live stock, Mr. May continues: "The automobile has driven the horse off the roads, but nothing can take the place of the hog on the farm. The hog will find its own living if it is kept on green pasture and given a little encouragement in refuse from the house. If carefully handled, hogs can be employed to useful purposes in harvesting certain crops, and even sometimes in cultivating. At this experiment station, a piece of coffee where young pigs were allowed to run gave a larger yield than that which was cultivated in the usual manner. At the Missouri Station they eliminated the codling moth from an orchard by allowing hogs to run in it at the time when the apples were dropping. The insects did not have time to change into the moth stage, as the hogs would eat the apples as fast as they dropped. Fences are necessary in hog raising. But aside from that, there is no great additional expense in raising hogs in Porto Rico. Sweet potatoes and peanuts are easy to grow here, and the hogs will harvest them, producing pork at a very low cost."

office should be in a more public thoroughfare."

Mr. Hall, in charge of H.M. Trade Commissioner's office in Port of Spain, thought that £5,000 would, in the ordinary way, if one did not aim too high, be ample for the total expenses of the Trade Commissioner's office.

Finally, it was agreed: "That the report be circulated among members of the Chamber and as well forwarded to the Chambers of the other islands, which should be asked to join in the maintenance of such an institution in London as indicated in the report.

"(2) That The West India Committee and others be approached for their fullest and frankest views on the subject.

"(3) That the report be meanwhile re-committed."

JOTTINGS FROM MY NOTEBOOK.

By "AGRONOMIST."

When it is considered what a nation loses from agricultural ignorance, it is folly to try and save on agricultural education.

* * *

The Queensland pine, said Sir Matthew Nathan recently at a Show in Wellington, Australia, is superior to pines grown in any other part of the world.

* * *

The first cotton-spinning factory in Australia is to be erected in a suburb of Sydney. It will employ about 1,000 hands, and is a consequence of the recent initiation of a cotton-growing industry in that country.

* * *

Experiments which have been recently conducted with the view of increasing the proportion of hens to cocks in poultry raising go to show that, when a single pure breed is dealt with, the heavier eggs produce male birds and the lighter female.

* * *

The bee-eating bird (*Merops ornatus*) is a serious menace to bee-keeping in Australia. In fine weather these birds hang about the hives at a short distance from them, lying in wait for the bees, but when the bees stay at home in wet weather the birds go into the apiary after them.

* * *

It is considered in some poultry circles that the maximum number of eggs a hen can lay is under 1,000. In Australia, however, there is a hen which up to a recent date had laid 1,037 eggs since she commenced her remarkable career in 1917, and it is stated that, judging from appearances, her laying days will extend over several years to come.

* * *

A simple way of extracting the oil from citrus trees is by the sponge process. In this the slices of peel are pressed gently by the fingers against pieces of sponge to an extent sufficient to flatten the convex piece of peel as much as possible. The sponge is periodically squeezed, and one man working thus should be able to extract 1½ lbs. of oil per day.

* * *

The results of some recent experiments carried out in Yorkshire and Warwickshire by the Research Department of the Olympia Agricultural Company point to the addition of a proportion of fish meal amounting to not more than one-tenth of the total meal ration leading to a better consumption of food, with consequent increased rate of growth. The record of the pigs thus fed is stated to have been superior to that of those in which the fish meal was not included in the ration.

* * *

The average grains which make up a soil, says Mr. Auchincloch in the *Tropical Agriculturist*, are two and a half times as heavy as water, and a cubic foot of soil on ordinary flint contains 60 lbs. of particles and 10 lbs. of water. A cubic foot of

water weighs 62½ lbs, and such a soil, therefore, is composed of 16 volumes of water, 40 volumes of soil, and 44 volumes of air spaces. Each granule or particle of soil being surrounded by air space, excepting at those points at which it is in contact with other particles, it follows that the air spaces, however contorted in size and direction, must form continuous tubes in all directions through the soil.

* * *

In Palaeolithic times, says Miss Annie Belt in a recent number of the *Bee World*, man lived by the chase, and in order to get honey followed the bee to its home, where he cut the combs. Later on, in the bushman or semi-domesticated stage, he exerted a proprietary right over a hive which he had discovered, and robbed it of its honey every year. In Neolithic times man settled down in one spot, and was thus able to keep bees as well as to grow crops. According to Miss Bell, the first alcoholic beverage made by man was fermented honey, the drink of the ancient Britons in the form of mead.

* * *

Winter green oil is one of the native American essential oil industries, the true oil not being produced outside the United States. It is obtained from the leaves of the *Gaultheria procumbens*, a plant which grows wild in many parts of the North American Continent. The oil is recovered by distillation in a still, which commonly consists of a wooden vat fitted with a sheet-iron bottom, and having a capacity of from 600 to 1,000 lbs. of leaves. This is erected on a furnace constructed from flat rocks, clay, and mortar, while the still-head is connected with a condensing coil inserted in a box supplied with water. In an article on the subject in *Ungerer's Bulletin*, Mr. M. G. Teaster says that slightly under one per cent. of oil is obtained from the leaves. Winter green oil is composed almost entirely of methyl salicylate, the proportion of this body present being over 98 per cent.

* * *

There are two distinctive kinds of whisky, the one the result of direct fermentation of malted barley, with subsequent distillation in a pot-still, and the other in which unmalted grain of almost any description is used as the source of the spirit, and in which the distillation is conducted in a "patent" still. The first, the original method of production, gives a spirit rich in flavouring and stimulating "esters," which, like all good things, improves with age. With the other kind, the use of the patent still is compulsory if potable spirit is to be turned out. In order to get rid of objectionable bodies which do not exist, or are found to a very small extent, in malt whisky, the spirit has to be distilled at a high strength, and whatever might be of value in the "ester" line is almost, if not entirely, lost. The spirit becomes almost "silent," is devoid of distinctive characteristics, approximating in this respect to pure alcohol, and cannot improve with age. The benefit from the use of potable spirits comes not from the alcohol, but from the beneficent "esters" they contain, and these are negligible quantities in unblended, unmalted grain whisky.

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

Barbados Crop Conditions.

Mr. J. H. Wilkinson reports that up to the 7th November, when he wrote, there had been three weeks hot sun in the Island, with the result that the canes were beginning to suffer. During the last few days, however, there had been some nice showers, although, unfortunately, these had not been general. The top of St. Phillip's and part of Christ Church, particularly, seemed to be left out, and the canes in these districts were suffering.—The new theatre, the Empire, was opened on October 18th, the first performance proving a great success.

Now that there is a regular steamship service between Barbados and Cuba, the *Advocate* understands that a good many labourers intend returning to Cuba on the assurance that they can return to their homes when they wish. The passage between the two islands is performed by the Webster Steamship Co. in five days.—Mr. E. G. Chambers was elected a member of the St. Michael Vestry on October 23rd, to fill the vacancy created by the death of Mr. Louis Skinner.—In view of recent statements reflecting on the purity of the Government water supply, Professor J. P. d'Albuquerque, Island Professor of Chemistry, has written a minute in which he states that for drinking purposes Barbados water ranks amongst the purest natural waters.—His Honour Sir Herbert Greaves, C.J., on October 27th ordered the firm of John Blackwood, Ltd., Engineers, to be wound up by the Court under Section 127 of the Companies Act, 1910, on the ground, *inter alia*, that the omission to pay a dividend when its financial condition enabled one to be paid rendered it just and equitable that the Company should be wound up. It appeared from the judgment that the firm began to make a profit in 1915, and that by the end of 1921 the estimated value of its assets was £80,246, or exceeding £2 per share.—The Legislative Council have granted a pension of £150 per annum to Rev. H. A. Dalton, D.D., on his retirement from the Headmastership of Harrison College.—The Obituary List includes the name of Captain Charles Packer Bowen, Officer Commanding the Barbados Volunteer Reserve Force.

Grenada Cacao Deteriorating?

Mr. E. P. Smith, writing on November 4th, states that the Governor, Sir O. B. Haddon-Smith, returned to the Colony on October 26th, after paying official visits to St. Lucia and St. Vincent. His Excellency, whilst in those islands, made certain pronouncements with regard to the impending introduction into the constitution of the elective principle, and is expected shortly to make a definite statement with regard to what is being done in this connection.—Major O. C. Heidenstam, the Chief of Police, who was absent from the Colony on leave, has also returned to the island.—Consequent upon the resignation of Mr. E. D. Laborde, I.S.O., Mr. H. W. Sharpe has been appointed to the post of Colonial Treasurer. Mr. D. C. Thomson succeeds Mr. Sharp in charge at Grenville, and Mr. I. C. Beaubrun will be Chief Treasury Clerk.—It has been notified for the information of persons desirous of giving information before it that the Committee recently

appointed to enquire into the conditions of the Medical Service of the Windward Islands will hold its first sitting at the Legislative Council Chamber in this island on November 10th. His Honour R. F. Lobb, C.M.G., Administrator of St. Vincent, is the Chairman of this Committee, its other members including four from Grenada and two from each of the other islands, only three of the nine members of the Committee being medical men.—The death occurred recently in St. George's of Mrs. L. C. Franco, the young wife of a prominent merchant.—The unfavourable prospects of the cacao industry are causing some concern locally. A correspondent of the *West-Indian* draws attention to the marked decline in production which has occurred within recent years. It has also been brought forcibly to notice that importers abroad have ceased to regard our cacao with that favour which it merited some years ago, and which its present grade does not deserve. There is no doubt that Grenada cacao has deteriorated. Serious consideration is being given to the matter by the Agricultural and Commercial Society, which has already recommended to the Government a system of grading to be enforced by legislation. In this connection it is also investigating the possibility and advisability of recommending the institution of an Agricultural Bank along lines similar to those recommended for adoption in Trinidad.—A sitting of the West Indian Court of Appeal will be held locally on November 17th.—The Exhibition fixed for the month of December has been postponed until early in 1923.

Revival of Jamaica's Industries.

Although, with the exception of bananas, Jamaica's products have not been fetching good prices, they have been going forward steadily, as is shown by the returns for the second quarter of this year, as compared with the corresponding quarter of 1921.

	1922.	1921.
Annatto	627,293 lbs.	249,763 lbs.
Cocoa	30,135 cwts.	19,978 cwts.
Coffee	22,500 "	11,382 "
Bananas	1,155,265 stems	2,705,541 stems
Cocomuts	8,011,100 nuts	4,085,585 nuts
Logwood Extract ...	3,817 packages	558 packages
Rum	444,356 gals.	298,309 gals.
Sugar	552,106 cwts.	116,000 cwts.

It is reported by the Direct West India Cable Co. that the Bedford Construction Co., of Halifax, N.S., has accepted the conditions laid down by the Government in connection with the construction of the extension of the Jamaica Government Railway Line from Chapelton to Frankfield. Two permanent-way engineers have arrived in Jamaica to serve in connection with the work.—The contract for the erection of the new Archbishop Nuttall Memorial Home at Newington, near Cross Roads, has been awarded to Messrs. Mais & Sant. When completed, the building will be a great acquisition to the community and will provide a highly suitable and lasting memorial to the late Archbishop Nuttall.—The proposal to construct a large dam at Hermitage to supply additional water to the Liguanea Plains has received approval. The dam will be the largest of its kind in the West Indies and will measure 600 feet in length and 120 feet in height, and will be able to impound five hundred million gallons of water. The constructional work will last two years. Advantage will be taken of the height of the dam to operate a small electric plant which will supply power for the lighting of streets and public

buildings in Kingston and St. Andrew.—The Secretary of State has agreed to the renewal of advances to sugar planters by the Government on the condition that no further committals be made for continuing the system of Government advances after this year, without previous consultation with the Colonial Office.—The Atlantic Fruit Company have been reorganised and Mr. Lindsay Downer confirmed in his appointment as Division Manager of the Company in Jamaica.—Mr. Bruce, the newly-appointed Resident Magistrate, has arrived from England to take up his position in St. Ann.—Mr. J. H. Dodd, A.M.I.C.E., Engineer of Ways and Works of the Jamaica Government Railway, has been offered and has accepted the position of chief of the Gold Coast Railway.—Sir Anthony Coll has resigned the Chief Justiceship of Jamaica. His Honour Mr. de Freitas has been acting as Chief Justice during Sir Anthony's absence on leave.—Mr. Neville Roots has been appointed Deputy Director of Public Works, and Mr. M. P. Tennant, Assistant Director.

Tobago's Cacao Crop.

Writing on the 1st November, Mr. Robert S. Reid reports that few showers and abundant sunshine are ripening up the cacao crop, and deliveries ought to be liberal between now and the end of the year.—The Franchise Commission has not yet assembled for lack of information and the absence of some of its members.

Trinidad's Constitutional Changes.

The Governor has appointed Commissioners under the chairmanship of Hon. W. C. Huggard, K.C., LL.D., to make recommendations upon Mr. Wood's proposal that the Unofficial side of the Legislative Council should in future be composed of six nominated members, and seven elected members (assuming Tobago desires to be represented). The other members of the Commission are:—Hon. A. G. Bell, Sir Henry Aleszar, K.C., Hon. W. G. Kay, O.B.E., Hon. Albert Cipriani, M.B.E., Hon. E. M. Lazare, Hon. Rev. C. D. Lalla, Hon. A. H. McShine, M.D., Mr. J. D. Hobson, Mr. G. F. Huggins, O.B.E., Mr. T. M. Kelshall, Dr. S. M. Laurence, Mr. C. H. Pierre, Dr. E. Prada, Mr. Robert S. Reid, Mr. J. B. D. Sellier, and Mr. A. Sobrian.—An outbreak of bud rot or ring disease in the coco-nut cultivation of the City Council farm at Coerite, is reported by the *Trinidad Guardian* of October 26th. The causes of the disease, as well as its means of cure, have so far baffled the scientific officers of the Agricultural Department, recourse having to be had to the drastic expedient of cutting down all infected trees.—The work of transferring the lepers from Coerite to Chacachacare is now almost complete.—The Apex Oilfields have obtained from the Government a mining lease over a number of lands at Pызabad.

Writing on November 21st, Mr. Alick Hamlyn states that the first meeting of the Franchise Commission was held on the 8th November, under the chair-

manship of the acting Attorney-General. This Commission was appointed in consequence of the decision of the Imperial Government that the Legislative Council shall in future be partly elective, and it is asked to advise as to the qualifications which should be required of candidates for seats on the Legislative Council, the qualifications of voters and the division of the Colony into electoral districts.—As a natural corollary of the recent election of City Councillors, when of the five candidates returned unopposed four were lawyers, a lawyer, Mr. Gaston Johnston, K.C., has been elected Mayor of Port of Spain.—The Governor, accompanied by a party composed of those chiefly concerned in promoting the enterprise, visited the reclamation works at Oropouche Lagoon on the 16th November. The works are making good pro-



A Picture House in Port of Spain.

gress, and are expected upon their completion, in about seven or eight months from now, to result in reclaiming 4,000 acres of land suitable for growing rice and ground provisions.—At the meeting of the Legislative Council held on the 17th November, before proceeding with business, the Governor decorated the Hon. Carl de Verteuil as Companion of the Most Distinguished Order of St. Michael and St. George, an honour which had recently been conferred upon him. The business of the meeting mostly had been with the financial position of the Colony, and discussion centred upon the proposed taxes on agricultural produce. The unofficial side of the Council contended that the agricultural interests should be shielded from financial pressure at the present time, and that cacao especially should be free from taxation, as it was being produced at a loss. The debate on this subject was postponed until the next meeting of the Council that the Agricultural Society might be afforded an opportunity of submitting its views.—The arrival of s.s. *Camito* on Saturday, 18th November, marked the beginning of a monthly service by Messrs. Elders and Pyfles' steamers from Avonmouth. It is gratifying to patriotic Trinidadians to be linked once more with the Mother Country by a line of British passenger steamers which make the passage in fourteen days.

JAMAICA'S GOVERNOR.

Movement for his Recall.

The affairs of Jamaica have recently obtained a certain prominence in the English Press, as a result of the vote of censure on the Government which was put forward by the elected members of the Legislative Council on November 28th.

When the Council met on November 21st, Sir Leslie Probyn was charged with having given an extra honorarium to Major Thomas, a "whole-time" official in respect of capital works for the railway without the authority of the Council. It was argued that this step opened the way to "graft."

The leader of the elected side of the House said that the country desired a change in the management of its affairs; the Governor and his principal officers should go and make way for progress. The country would be satisfied to pay them while they were away. The people were in no temper to stand further deception by officials, which was dragging them down to despair. Downing Street must understand that the presence of some officials was unwelcome.

Such speeches, cables the *Times* correspondent, have not been heard in the island for years. Before the Council met some members, it is understood, received letters threatening their lives if they did not attend. The elected members then forced the Government to adjourn the session for one week to enable them to consider the position. On November 28th they held a conference, at which, in order to secure unanimity, it was agreed to omit the names of the Governor, the Colonial Secretary, and the Director of the Railway as the officers whose removal was desired.

When the Legislature met the House was filled to overflowing with spectators. Standing orders were suspended, and the House proceeded to discuss the motion, which stated that the Council deprecated the manner in which the Government deals with financial questions; the repeated expenditure of public moneys without the sanction of the Council in direct violation of the Constitution; the system of withholding information relating to public business from the electives; the lack of bona fides and frankness displayed in the treatment of the electives—all of which was generally characteristic of the present Government. All public confidence in the Administration, the resolution continued, had been lost, owing to the manner in which the extraordinary claim for the Railway Director's Commission had been dealt with, the money being paid without previous submission to the Legislature. "The Council hereby records its protest against such conduct, and also its absolute want of confidence in the Administration."

In the debate elected members said that the resolution was intended to benefit the Colonial Administration and restore the regard of the Colony for British prestige. It was intended to preserve love of Empire. No one would appreciate the step more than the home authorities when they found that they had made the mistake of sending out the

wrong class of officials, who were dragging down the prestige of the Empire. Graft had been introduced into the Colony's services. The present Administration was the most disreputable that had ever governed the island, however painful it might be so say so. Misrepresentations had been made to the Colonial Office. The Governor had said he was unable to govern as he desired owing to superior forces. Who those forces were the elected members did not know, seeing that the Administration had the power to overcome them.

Amidst much excitement, the fourteen electives voted in favour of the motion; the vote of the Government side of the House was not taken. The electives will send a copy of the resolution to the Colonial Office.

Meanwhile, on November 25th, His Excellency had granted an interview to the *Times* correspondent, in which he stated that the attitude of the elected members at the opening of the Session was quite reasonable, seeing that at the time they had not had an opportunity of studying the information given by the Government, as the Government did not circulate printed messages before the Session started.

The Estimates for the capital works for the railway had provided for £7,000 as remuneration for supervision, which was at the rate of 5 per cent. The moment the Estimates were sanctioned, the power to decide how the money is to be expended passes from the Council to the Executive. There was a precedent for such a step; a former director had been given an honorarium of £500, without reference to the Legislature, twelve years ago.

The present Director of Railways had been appointed on special terms, and was not compelled to supervise new works. The Executive gave him, with the approval of Mr. Churchill, a portion of the £7,000. He (Sir Leslie) had intended to inform the Council of the arrangement. The Director had sent back the cheque, asking the Executive, without prejudice to his claim, to hold the money in trust pending the Duke of Devonshire's decision. The Director had given an undertaking not to draw any portion of the remainder until the matter was settled.

In order to remove causes of friction between the Executive and the electives, he intended to introduce a reform; whenever it became necessary to provide for supervision of capital works the Legislative Council would be asked to confirm the arrangement for the payment for such supervision.

In a letter published in *The Times*, of November 27th, Sir Sydney Olivier wrote:—

"I was Governor of Jamaica from 1907 to 1913. No honorarium or grant, in addition to salary, was made to the Director of the Railway during that period, either with or without reference to the Legislature.

I should like to record that the former Director referred to, the late Mr. James Richmond, C.M.G., cheerfully undertook, under my administration, the supervision, not only of large new capital works (not repairs or replacements), but also of the departmental construction of a new branch of the railway, without stipulating for or evincing any desire to receive any pay or commission whatever for these extraordinary capital works."

BRITISH HONDURAS.

Trade Steadily Maintained.

While last year cannot be described as a prosperous one, states Hon. Max Smith in his Report on British Honduras for 1921-2, the Colony and its inhabitants have not had much to complain of, and indeed have had much to be thankful for.

However, the low prices paid for chicle and the reduction in its export of over a million pounds, as compared with the preceding year, lessened considerably the amount of money in circulation. In the Cayo District only about 200 labourers were signed on for chicle bleeding instead of the usual number of about 700. Again, owing to the reduced cultivation on many of the banana farms through the presence of Panama disease in the Stann Creek District, many labourers emigrated to Honduras. Fortunately, poverty, as known in some other countries, does not exist in the Colony. There is always work near at hand for those who want it and will accept a reasonable wage. The average wages were, for mahogany cutting \$14 a month plus rations, for agriculture \$10, and for other work \$11.50 a month. It is to be regretted that apparently no records are kept either of immigration or of emigration. In the Corozal District a good road has been built across the Louisville Swamp, but the Colony is still urgently in need of good internal communications, the total length of metalled roads outside Belize being only about 30 miles.

Last year was the first in which incomes were taxed in accordance with the law passed in 1920. Out of a population of 45,000 only 452 people were liable to the tax, the total assessment amounting to \$72,279.

The value of the Colony's trade was \$6,388,591, of which imports contributed \$3,343,132 and exports \$3,045,459. The United States control the bulk of the trade, supplying 56 per cent. of the imports and taking 76 per cent. of the exports. The Empire's share was only 21 and 17 per cent. respectively. In spite of a falling off in prices, trade on the whole has been steadily maintained, and is in excess of that of 1917.

Much of the large area of scrub-land in the Colony is the result of wasteful deforestation by fire, which has been going on for centuries. It is to be hoped that with a new Forestry Department, a stop will be put to indiscriminate forest fires, and that people will learn to become agriculturists in the only profitable way, that is by using modern methods of tillage. Sugar is still made in certain parts of the Northern and Southern districts, but only for local consumption. A soap-making industry has been started in Stann Creek, cohune-nut oil being used in making the soap.

As regards the timber industry, Mr. Hummel, the Forestry Officer, has arranged with concessionaires in Florida for the development of the Chipley Pine territory between Siltee River and Deep River, and it is expected that cutting and bleeding operations on a large scale will very shortly be entered upon. Meanwhile another Florida company is operating with considerable success on private lands, and the flow of turpentine is said to be satisfactory. In the latter part of the year a substantial British timber concern sent a representative to the Colony to examine the mahogany forests, and it is believed that he has reported favourably on the trees in the Western District. It is hoped in time to extend the Stann Creek Railway to tap this district.

OUR WEST INDIAN LIBRARY.

TARIFFS: A STUDY IN METHOD. By T. E. G. GREGORY, B.Sc. London, Charles Griffin & Co., 1921. pp. xiii. + 518. 21s.

"Damn Political Economy!" the irate statesman is said to have exclaimed when told that certain cherished principles of his were opposed to the teachings of that science. Whether we are disposed or not to share his impatience, it must be admitted that a time when the nations of the world seem vying with each other in building up their Customs barrier, when the United States have just enacted the most complete experiment in protection as yet devised, and when even Great Britain has but lately abandoned, at present in a somewhat halting and irresolute fashion, her age-long adherence to a peculiar form of free trade, which was neither free nor particularly conducive to trade, such a time, then, seems singularly opportune for the careful examination of the basic ideas which underlie fiscal systems as practised by modern states.

It must be said at once that those who turn to Mr. Gregory's treatise for an exposition of the merits of rival claims of Free Trade and Protection, of Reciprocity and Retaliation, will come away disappointed. Whilst he does not reject a vigilantly critical outlook, it has not been the author's aim to enter the field of these old (and often barren) controversies, but rather to describe impartially and from a comparative point of view the institutions actually at work. Originally designed on behalf of the London School of Economics for the guidance of Consular students, the book fulfils this object admirably, and moreover, supplies in a clear and authoritative manner the groundwork without a knowledge of which arguing on these polemical topics is but beating the air.

On two questions the author does commit himself to definite conclusions. Thus he holds that the choice between specific and *ad valorem* duties has been finally determined in favour of the latter, whilst in the same way there is simply no question of the necessity for specialisation or differentiation between different grades of the same commodity.

Two useful chapters are devoted to Colonial Preference, the first showing what is done in this respect by other nations, and the second setting forth in some detail the preferential system of the British Empire. The chief difficulty here has been the divergent attitude assumed until recently by the United Kingdom and outlying portions of the Empire. Another difficulty occasionally arises through the disinclination of certain foreign countries to recognise the claim that inter-imperial preferences are purely a "domestic concern," and to impose differential duties against those parts of the Empire which give favourable terms to imports from the Mother-country. The arguments for and the difficulties in the way of a complete Customs Union or at least a Customs Federation within the Empire are clearly shown.

The tariffs road is beset with pitfalls at every step, and we commend this book to all who are concerned with the drafting or enforcement of customs systems in the West Indian Colonies. Their difficulty in devising a tariff which shall at once obtain the necessary revenue, be fair to the consumer and benefit or at any rate not hamper the Colony's trade, is convincingly shown.

WANT.

MRS. BEACH, late of Demerara, is taking charge of children for holidays on the South Coast, at Garston House, Langton, Matravers, Dorset; £2 3s. to £3 3s. per week. There is also accommodation for guests. Climate healthy and bracing.

PERSONAL NOTES.

MISS MAUD M. BARROWES has resigned the position of headmistress of Hampton School at Malvern, Jamaica, and is now in England.

THE HON. T. A. V. BEST, Colonial Secretary of Trinidad and Tobago, hopes to return to England on leave of absence early this month.

MR. DUNCAN MACKINTOSH, who is part proprietor of Riversdale Estate in Dominica, left London on Friday last on an extended tour through the West Indies.

SIR WILLOUGHBY MAYCOCK, who died recently in London, was for many years a member of The West India Committee, his West Indian interests arising from his being trustee under the will of the proprietor of Maxwell's Estate in Barbados.

SIR CHARLES DAVSON, who recently retired, was Solicitor-General of British Guiana for seven years, and then a Puisne Judge in Mauritius for eight years, and not as otherwise stated. Moreover, his wife is a niece of, and not a daughter of Mr. W. A. Wolseley.

MR. H. L. Q. HENRIQUES, of the firm of D. Q. Henriques & Co., West India Merchants, leaves England, accompanied by his wife, in the s.s. *Bayano* on January 18th for Jamaica, via Barbados and Trinidad. Mr. and Mrs. Henriques hope to spend a month in Jamaica, and propose to return direct.

MR. T. GREENWOOD, an Hon. Treasurer of The West India Committee, who unsuccessfully contested Hertford in the recent General Election, has been adopted as the Liberal candidate for the Hertford Division. Though a Liberal, Mr. Greenwood has expressed himself as a strong supporter of the policy of Colonial Preference "up to the hilt," to use his own words.

THE appointment of Commodore Alan Hotham to be A.D.C. to the King, which was recently gazetted, will give his many friends in the West Indies, where he is affectionately remembered as Captain of H.M.S. *Acolus*, genuine pleasure. Son of Admiral of the Fleet Sir Charles Hotham, who also paid a visit to the West Indies some years ago, Commodore Hotham served with distinction in H.M.S. *Comus* during the war, and has always evinced a keen interest in West Indian affairs. At present he is in H.M.S. *Chatham* with the New Zealand fleet.

DR. J. J. NUNAN, Attorney-General of British Guiana, who for the last two and a half years has been "seconded," as it were, for service with the Austrian and Hungarian sections of the Reparations Commission, returns to Georgetown next February or March. In co-operation with Sir William Goode, another friend of the West Indies,

Dr. Nunan has done yeoman service for Europe, and it is a feather in his cap that the League of Nations should have adopted all the plans put forward by the British delegation, which involves one of the largest financial arrangements known in history. Incidentally, Dr. Nunan has also completed his work in connection with the laws of British Guiana, which originally brought him to England a few years ago.

OBITUARY.

SIR FRANCIS FLEMING, K.C.M.G.

As we go to press we have learnt with deep regret that Sir Francis Fleming, K.C.M.G., died at the age of 80, at his residence, Sydney Place, South Kensington, on December 4th.

Sir Francis Fleming enjoyed the distinction of having filled appointments in no fewer than eleven colonies. The son of James Fleming, Q.C., and Julia, daughter of Major John Canning, he was sent to school at Downside, and was called to the Bar by the Middle Temple in 1866. Three years later he became Crown Solicitor for Mauritius, being afterwards district and stipendiary magistrate. Service as District Judge first in the Seychelles and then in Jamaica followed, and in 1878 he became Attorney-General of Barbados and acting Chief Justice. He was also for a time acting Chief Justice of St. Lucia. In 1880 he was private secretary to Sir G. C. Strahan, administering the Government of the Cape, and in 1881 removed to British Guiana as a Puisne Judge. In 1883 he was transferred to Ceylon as Queen's Advocate, later becoming Attorney-General and acting Chief Justice. In December, 1886, he returned to Mauritius as Colonial Secretary, and administered the Government from July, 1887, to December, 1888. Then he became Colonial Secretary of Hong Kong, and administered the Government there for nearly a year. In 1892 he received his first Governorship, that of Sierra Leone, and three years later he was transferred to the Leeward Islands, where he remained till his retirement in 1901. Thereafter Sir Francis Fleming, who had been made C.M.G. in 1887 and K.C.M.G. in 1892, did useful social work. He was a member of the Distressed Colonial Seamen Committee, the Metropolitan Asylums Board, and throughout the war of The West Indian Contingent Committee, and he also devoted much time to parochial affairs in the district in which he resided. In 1892 he married Constance, daughter of Maurice D. Kavanagh, and had one son, who was killed in action in 1916.

MR. JOHN D'AETH, I.S.O., M.I.C.E.

We regret to state that Mr. John D'Aeth died at Purley on November 21st.

The son of James Death, of Waltham Abbey and Cheshunt, he was born on August 10th, 1853, and was educated at Kings College, London. At the age of 20 he was appointed to the staff of the Public Works Department, Jamaica, and after serving as District Engineer in various parts of the island and supervising the construction of mountain roads, he was promoted to be Assistant Director of the Department, from 1902 till he retired in 1914. For his services on relief works after the hurricane in Jamaica in August, 1903, he was mentioned in dispatches. He received the I.S.O. in 1910.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

A Freak Coco-nut Palm.

SIR,—On page 291 of your issue No. 619 of June 22nd last, you show a photograph of a corkscrew-shaped coco-nut palm as to the cause of which you seek information.

Even were British Guiana in the hurricane belt, I think that the possibility of a succession of hurricanes having caused the spirality of the palm in question may be counted out. A coco-nut palm is resilient rather than pliable and in a hurricane or a strong gale, so long as the roots hold, the palm will bend with the wind to a great degree, but immediately the pressure has ceased it will spring back to its former position. The palm is supple, however, only up to a certain point, after which the top will break off.

I think it is probable that the cause of the palm growing in the peculiar manner indicated must be due to some disease. There is on this station a palm of about 12 to 15 years of age which, I am sure, if allowed to grow, will in time resemble the one in the photograph. At present the top of the palm is pointing downwards, but all the leaves, though bunched and crumpled, are green and otherwise healthy looking. Even now there are signs of its resuming its upward growth, leaving a kink in the trunk similar to the first or bottom kink in the photograph.

I showed the photograph in the CIRCULAR to one of the natives on this station, who told me that they have a name for such trees—Laiza (crippled)—and that if a man were to climb to the top of the tree or allow one of the leaves to touch his body he would become a cripple.

The disease known as "bud rot" often has the effect of causing a palm to droop but, so far as I can ascertain, when "bud rot" has reached that stage it is fatal to the palm. (This disease is unmistakable on account of the foul odour given forth from the top of the palm.)

It is evident, therefore, that bud rot cannot have caused the peculiar growth, and I am inclined to think that it must have been caused by the same disease or weakness with which the palm I have mentioned is afflicted.

Yours, etc., CLIFFORD FRANCIS,
H.B.M.'s District Officer.

Government Station,
British Solomon Islands Protectorate,
October 3rd, 1922.

We are indebted to Mr. Clifford Francis for his interesting letter, which throws some light on the origin of the curious spiral coco-nut palms, of which several illustrations have appeared in THE WEST INDIA COMMITTEE CIRCULAR. We shall be glad to receive the views of agriculturists and others on this and kindred subjects, for the discussion of which, the pages of the Circular are always open. Incidentally, Mr. Francis' letter shows how wide the circulation of this periodical has become, reaching as it does, from the British West Indies, to the far distant Solomon Islands.—EDITOR, THE WEST INDIA COMMITTEE CIRCULAR.

DEATH.

SABEY.—On November 25th, after years of silent suffering patiently endured, from an illness contracted during the Great War, Andrew, the only son of Mr. and Mrs. James J. Sabey, aged 34.

SYNTHETIC HONEY.

Attention is called in *Commerce Reports*, the journal of the United States Department of Commerce, to the increased use of artificial honey in Germany, owing to the shortage of meats and fats. Artificial honey is made from refined sugar, either cane or beet, and contains about 80 per cent. of sugar, the rest being water and honey flavour artificially conferred. Pre-war peak production was reached in 1905, the industry declining by 1913 to a point where the factories were working only at about 25 per cent. capacity.

The shortage of meats and fats during the war stimulated the industry, which became very pros-



A Freak Coco-nut Palm.

This is the curious corkscrew palm photographed by Mr. G. E. Bodkin, to which Mr. Clifford Francis refers in his interesting letter published on this page.

perous until Government control of sugar limited the amount of raw material allocated to the honey industry. However, despite all difficulties, post-war production exceeded the pre-war from 800 per cent. to 400 per cent. At present the factory operations are embarrassed through lack of sugar, and are unable to supply more than a fraction of the demand for artificial honey. There are from 40 to 50 large factories with about 150 smaller "cockeries," so called. The annual production of honey is about 50,000 tons, which means a consumption of about 40,000 tons of refined sugar.

THE GOVERNORS OF JAMAICA.

By FRANK CUNDALL, F.S.A.

XIII. John White, President.

(Continued from page 543.)

On May 28th news was received that the French with some English renegades had landed on the north side. Martial law was declared, and Bourden took charge of the Militia. Steps were promptly taken for such defence as could be made, and inducements were offered to soldiers and seamen to serve on the vessels that were to go against them. Eight hundred pounds was voted to Peter Beckford for the repair of Fort Charles, especially the alteration of the port holes so as to allow the guns to be used properly, they being too short for the port holes as they were then constructed. The Port Royal, Spanish Town, and Liguanea regiments were immediately called to arms, and embargo was laid on all vessels, and the old *Swan*, which had been ordered to be broken up, was again put in commission.

On June 7th occurred the earthquake which devastated Port Royal. It is usually stated that the Council was sitting at the time, but from the account given below by the Rector it evidently had adjourned.

The Rector of Port Royal at the time, Dr. Heath, tells us in "A full Account of the Late Dreadful Earthquake at Port Royal, in Jamaica, written in two Letters from the Minister of that Place. From aboard the *Granada*, in Port Royal Harbour, June 22nd, 1692, Licensed September 9th, 1692," that:—

"On Wednesday the 7th of June I had been at Church reading prayers which I did every day since I was rector of this place to keep up some show of religion among a most ungodly and debauched people, and was gone to a place hard by the church, where the merchants meet, and where the President of the council was, who acts now in Chief till we have a new Governor, who came into my company, and engaged me to take a glass of wormwood wine with him, as a whet before dinner, he being my very good friend, I staid with him; upon which he lighted a pipe of tobacco which he was pretty long in taking; and not being willing to leave him before it was all out, this determined me from going to dinner to one Captain Ruden's where I was to dine; whose house, upon the first concussion, sunk into the earth, and then into the sea, with his wife and family, and some that were come to dine with him; had I been there, I had been lost. But to return to the President, and his pipe of tobacco; before that was out, I found the ground rolling, and moving under my feet; upon which I said to him, 'Lord, Sir, what is that?' He replied, being a very grave man, 'It is an earthquake; be not afraid, it will soon be over.' But it increased and we heard the Church and Tower fall, upon which we ran to save ourselves; I quickly lost him and made towards Morgans fort, because being a wide open place, I thought to be there securest from the falling houses; but as I made towards it, I saw the earth open and swallow up a multitude of people; and the sea mounting in upon them over the fortifications."

After he had prayed with the people he was taken by some merchants on board "a ship called the *Storm-*

Merchant, where I found the President safe, who was overjoyed to see me: there I continued that night, but could not sleep for the returns of the Earthquake almost every hour, which made all the Guns in the Ship to jarr and rattle."

Proclamations were promptly issued for the safeguarding of property and the relief of the distressed. On July 18th the Council sent home the hitherto unpublished account:—

"On the seventh instant it pleased GOD to afflict this whole Island wth. an Earthquake, ye dreadfulness whereof will sensibly enough appear in acquainting yor. lordships that in the space of two Minutes all the churches the Dwelling houses and sugar workes of the whole Island were throwne downe, two thirds of Port Royall swallowed up by the sea, all its Forts and fortifications demolished and great part of its Inhabitants miserably either knockt ot'h head ore drowned, as we are become by this an instance of GOD Almighty's Severe Judgment, so wee hope we shall be of yor. Lordship's Compassion.

"We have in the Midst of this Confusion aply'd our selves with all vigor to the Restoring of things, We have taken into their Majesties service the *Richard and Sarah*, a Mercht. ship where tho: to or: great loss in the Neglect of or: private affairs we sit *de die in diem* in Councill protecting the Merchts. in their fishing on the Ruins of their owne houses, Preventing Robbery and Stealing amongst the Ruins decideing Controversies and punishing Quarrells too frequently arising from the uncertain right of things, in sinking floating carcases, in takeing care of the sick and wounded, lastly in feeding and sustaining the necessitous wch. must now be done out of ye country stock, all kinde of Stores being lost in the Ruin of Port Royall.

"We have sett the Masters of ships to the Sounding a Channell Leading farther up into this harbour, where we are like to have a Seituation equal to port Royal in everything and exceeding it in its being Capable of Relieving the Country or being on any invasion relieved by it. This may it please yor. lordships we doe in all humble confidence hoping your Lordships will consider us as we are all open and exposed to the attempts of the enemys by sea as well as land.

"At land at this instant we are contending against a party of french wch. have been for some time ravaging the Northside of this Island and tho: we have sent a Proportionable force against them both by sea and land yet by reason of the violent Rains and Earthquakes at land and blowing weather at Sea, It has not pleased GOD as yet to make us able to give such acct. of them as we still hope to do. Amongst other accidents of the Earthquakes, their Majesties Ship the *Swan* lying at the wharves for careening was suckt amongst the houses of Port Royall, has lost her Gunns, Rigging, Cables and anchors, had her keel damaged and is on survey cast and wee must inform yor. lordships that could repeated persuasions and even threats have prevailed on Capt. Nevill to any Degree of Dilligence the *Swan* had either been out of harbour or Rid out of danger. Many of the great Gunns of the fortifications are two fathoms under water and are in danger of being lost. The small armes of ye. Country are Generally broke by the fall of houses wch. gives us apprehensions from or. Slaves."

"This being the true State of or: Conditions wee most humbly beseech yor. lordships, effectually to intercede wth. their most gracious Majesties that we may have a Proportionable Reliefe in time and in all humility we think (till we shall be able to forty.) It

cannot be less than three fifth Rates with, one or two good fourth Rates for a Battery together with, four or five hundred land souldiers and all sorts of armies and ammunition (great shot excepted) and that your lordships would procure us such a Governr. whose generous care and charity may be equal to the needs of this distressed place and we humbly take leave to Inform your lordships that a Tolerable choice may be made from amongst ourselves, Till by the Blessing of GOD and ye Just & Equall administration of this Government, it may again grow to be a fitt Reward for greater persons. We humbly begg that this advice Sloop may be Speedily Returned and ye Master and the men protected, all wch. is humbly Submitted. We are, may it please your Honor.

" Your Lordships Most humble Servts.

JOHN WHITE, P.C.
JOHN BOURDEN.
PETER HEYWOOD.
SAMUEL BERNARD.
JOHN TOWERS.
NICHOLAS LAWS.
FRANCIS BLACKMORE.
CHARLES KNIGHT,
THOMAS SUTTON.

" Jamaica, from on board the *Richard and Sarah* (Guardship), June the 20th, 1692."

(To be continued.)

THE WEST INDIAN PASSENGER LIST.

Elders & Fyffes, Ltd.

Sailings to Jamaica, from Avonmouth, in R.M.S. *Changuinola* November 26th.

Mr. & Mrs. T. Anderson	Mr. D. P. Heeter	The Viscount
Miss M. Anderson	Rev. J. E. Hogan, R.N.	Masserone & Ferrard
Mr. F. M. Borthwick	Dr. & Mrs. J. W. N.	Mr. E. Morris
Mr. & Mrs. W. Chivers	Hudson	Miss I. M. Morris
Mr. C. Collingwood	The Misses Hudson (2)	Miss A. Morton
Mr. M. C. Coltrin	Mr. H. C. A. Hunter	The Misses Myles (3)
Dr. & Mrs. L. O.	The Right Rev.	The Earl of Ossory
Crosswell	Bishop of Jamaica	Mr. J. Read
Mrs. H. M. Culverwell	Rev. & Mrs. J. L. Jarrett	Mrs. D. M. Smith
Mr. F. K. Farcuharson	Miss F. H. Jarrett	Mr. D. C. Vaz
Mr. R. A. N. Gordon	Mr. H. T. Ker	Miss T. C. Vidal
Mr. L. F. Grace	Mr. B. P. Lee	Mr. F. G. Vopper
Mr. F. Grove	Mr. T. S. C. Lee	Mr. & Mrs. J. C. Wood
Miss E. Hall	Mr. W. F. Lowe	Lady N. T. Wolsey
Mrs. E. V. Hawthorn	Mr. C. M. MacGreaves	
& family		

Home arrivals from Jamaica in s.s. *Coronado*, Avonmouth, November 26th :-

Miss M. H. Barrows	Mr. S. J. N. Newton	Miss E. J. Tilley
Mr. C. A. Blain	Mr. A. V. Roberts	Mr. & Mrs. J. Pince
Mrs. G. M. Cocks	Mr. W. S. Semple	Mr. L. Whitbourne
& family	Mr. K. R. A.	
Mr. & Mrs. Kelly	Stephenson	

Royal Netherlands West Indian Mail

Sailings to West Indies from Dover, in s.s. *Venezuela*, December 2nd :-

Mr. & Mrs. F. Alexander	Mr. T. A. Goodall	The Misses Moncaille (2)
Mr. I. K. Alton	Miss R. C. Griffith	Mr. D. Murray
Mr. & Mrs. G. Channing	Mr. & Mrs. W. Harling	Mr. E. Newell
Mr. & Mrs. G. A. Clarke	Miss M. K. V.	Mrs. E. Ommaney
Mr. I. A. Coates	Hutchinson	Mr. A. E. Page
Mr. E. C. Cummins	Mr. C. F. Jones	Mr. R. G. P. Pringle
Mr. R. A. Davis	Mr. J. B. Jones	Mr. T. Robathan
Mr. F. W. Duff	The Rev. & Mrs. Jess	Mrs. A. L. Sealy
Mr. W. S. Flemons	Lady V. Knazes	Miss E. Tenraill
Mr. R. A. Godden	Mr. H. G. Leonard	Mr. H. Weber
Mr. S. L. Gold	Mr. D. Mackintosh	Mr. J. A. Wharton
	Mr. H. Macrorie	Mr. D. M. Wotherspoon
	Mr. H. G. Maslin	Miss I. D. Wylie
	Mrs. M. F. McDonald	

Home arrivals from West Indies, in s.s. *Stuyvesant*, Plymouth, November 21st :-

Mr. & Mrs. J. Boeza	Mr. A. Haughton	Mr. H. Littlepage
Captain J. Grant	Mr. S. Lancaster	Mr. L. Short

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
B'da, B'mas, & Jamaica	... Liverpool	... <i>Novian</i>	... Dec. 9
West Indies	... Plymouth	... <i>Macoris</i>	... .. 11
Jamaica	... Bristol	... <i>Paluca</i>	... .. 12
B'dos & T'dad	... Liverpool	... <i>Antillian</i>	... .. 13
B'da & Ja'ca	... Bristol	... <i>Coronado</i>	... .. 18
West Indies	... Dover	... <i>Stuyvesant</i>	... .. 16
B'mas, Ja'ca & H. Honduras	... Liverpool	... <i>Dramatist</i>	... .. 23
Jamaica	... Bristol	... <i>Metagna</i>	... .. 26
West Indies	... London	... <i>Intaba</i>	... .. 29
West Indies	... Dover	... <i>Van Rensselaer</i>	... .. 30
B'dos & T'dad	... Liverpool	... <i>Asian</i>	... .. 30
B'dos, T'dad & Demerara	... Glasgow	... <i>Traveller</i>	... .. 30
Demerara & Trinidad	... Amsterdam	... <i>Commevisje</i>	... Dec. 14
B'da, B'mas, Ja'ca & B. H'das	... Halifax, N.S.	... <i>Canadian Forester</i>	... .. 28
West Indies	... New York	... <i>Guiana</i>	... .. 29
Ja'ca & B. H'ss	... New York	... <i>Zacapa</i>	... .. 30
Bermuda	... New York	... <i>Fort St. George</i>	... .. 30
Barbados	... New York	... <i>Vauban</i>	... .. 30
G'da, T'dad & Demerara	... New York	... <i>Maracal</i>	... Jan. 2
Bermuda	... New York	... <i>Fort Victoria</i>	... .. 3
Jamaica	... New York	... <i>Metapan</i>	... .. 3
West Indies	... Halifax, N.S.	... <i>Cataquet</i>	... .. 5
Bermuda	... New York	... <i>Fort St. George</i>	... .. 6
Bermuda	... New York	... <i>Fort Victoria</i>	... .. 10
Jamaica	... New York	... <i>Sicoola</i>	... .. 10
D'ara & T'dad	... Amsterdam	... <i>Prins Frederik</i>	... .. 11
		... <i>Hondrik</i>	... .. 11
West Indies	... New York	... <i>Parina</i>	... .. 12
B. Honduras	... New Orleans	... <i>"U.F. Co. Steamer"</i>	... .. 13
Bermuda	... New York	... <i>Fort St. George</i>	... .. 13
G'da, T'dad & Demerara	... New York	... <i>Matura</i>	... .. 16
Jamaica	... New York	... <i>Carillo</i>	... .. 17
Bermuda	... New York	... <i>Fort Victoria</i>	... .. 17
B'da, B'mas, Ja'ca & Br. H'ss	... Halifax, N.S.	... <i>Canadian Fisher</i>	... .. 18
West Indies	... Halifax, N.S.	... <i>Chandiere</i>	... .. 19
Bermuda	... New York	... <i>Fort St. George</i>	... .. 20
Jamaica	... New York	... <i>Tivities</i>	... .. 21
Bermuda	... New York	... <i>Fort Victoria</i>	... .. 21
West Indies	... New York	... <i>Guiana</i>	... .. 26
Ja'ca & B. H'mas	... London	... <i>Zacapa</i>	... .. 27
Bermuda	... New York	... <i>Fort St. George</i>	... .. 27
Jamaica	... New York	... <i>Metapan</i>	... .. 31
Bermuda	... New York	... <i>Fort Victoria</i>	... .. 31

WEST INDIES AT WESTMINSTER.

The Houses of Parliament were opened in State by the King on November 21st.

An Imperial Economic Conference.

The Prime Minister (Mr. Bonar Law), replying to Commander Bellairs on November 30th, stated that he had never heard it suggested by the representatives of any of the Dominions that there was any desire for an alteration in the title of the Secretary of State for the Colonies, but if such a desire were felt, it would no doubt be raised at the Imperial Conference, a meeting of which it might be found convenient to hold next year, although the date must depend partly on whether it was decided to hold an Imperial Economic Conference in advance of the Imperial Conference.

PRODUCE MARKETS SUMMARY.

Telephone—
 Minories 2200-2201.
 Telegrams—
 "Carib. London."



14, TRINITY SQUARE,
 LONDON, E.C.3.
 Dec. 5th, 1922.

BANK RATE. 8 per cent, as from July 12th.
EXCHANGE. Value of the £ Sterling.

	Nov. 21st	Dec. 5th		Nov. 21st	Dec. 5th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To U.S.A. ...	18 5	18 8	To Spain ...	1 3 1	1 3 2
.. France	2 8 6	2 11 3	.. Germany	130 0 0	130 0 0
.. Belgium	2 12 0	2 15 5	.. Austria	Nominal	Nominal
.. Italy ...	3 18 0	3 11 4	.. Holland	18 10	18 10

The value of the gold sovereign is £1 1s. 5d.

SUGAR. During the fortnight the New York market has been firm, and prices have risen above the level of the previous four weeks, yesterday's quotation being 5.18c. for duty-paid and landed Cubans, which is an increase of .25c. on last Summary's quotation. This price is equivalent to 4c. c.i.f., or about 8.84c. f.o.b. The market yesterday was reported quiet and steady, with Cubans for January selling at 3.50c. c.&f.

Future market values were steady at: January 3.56c.; March 3.82c.; May 3.45c.; and July 3.56c.

The Home Market has been steady at about unchanged rates. Yesterday's values were: London Granulated, 38/6; American Granulated, 50/- spot; West Indian Crystallised, 42/- to 45/-; White Mauritius, 47/6 to 48/-; White Java, 48/8 to 48/9. Cuban 96 dog. for February-March was quoted at 17/9 c.i.f.

Terminal market values were: White, January, 31/9; February, 21/11; March, 21/11½; May, 22/4.

The West Indian sugar statistics in London on November 25th were:—

	1922.	1921.	1920.
Imports ...	41,445	46,000	61,056 Tons
Deliveries ...	38,734	48,175	56,142 "
Stock ...	8,610	8,229	13,050 "

RUM. There has been a better enquiry all round, and a moderate business is passing. A slightly better feeling is apparent in this market.

The stocks in London on November 25th were:—

	1922	1921	1920
Jamaica ...	12,716	11,018	10,167 Puna.
Demerara ...	18,289	17,400	15,418 "
Total of all kinds	38,650	34,545	36,004 "

CACAO generally has been quiet on the fortnight, and prices are about unchanged. Trinidad on the spot is unchanged, with practically no business doing. Medium Grenada is quoted at 48/- to 50/-, with small sales reported.

Messrs. Edgar Tripp & Co. report that the shipment of Trinidad cacao for October amounted to 2,457,503 lbs., making a total for the ten months of 44,122,031 lbs. The figures for the past ten years were as follows:—

	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912
To same date	...	...	...	...	...	...	...	...	...	...
1921	69,785,672	61,566,686	51,201,490	38,296,973	67,890,872	50,636,017	41,258,058	68,745,517	45,780,272	40,143,025

The stocks in London on November 25th were:—

	1922	1921	1920
Trinidad ...	5,163	16,084	31,421 Bags.
Grenada ...	9,778	15,471	23,095 "
Total of all kinds	64,021	104,261	221,345 "

ARROWROOT continues a slow market, with the quotations given in last Summary unchanged—fine to good manufacturing 5½d. to 6d., and grocery 6d. to 7d.

BALATA. The market is very firm, and prices on the fortnight have again advanced. West Indian sheet is valued at 3/7 spot, and forward 3/4½, c.i.f.

COFFEE. There is practically no change to report in coffee. The demand for home-trade qualities (especially East African varieties) is good, but export kinds remain slow. No Jamaica has been offered recently, and the nominal quotation of 70/- to 75/- for good to fine ordinary is unchanged.

COPRA is generally firm, with West Indian f.o.b. quoted at £25 12s. 6d. net.

COTTON generally, is quiet, with little change in values. West Indian Sea Island is unchanged at: medium 22½, fine 26d., and extra fine 35d.

HONEY continues to maintain the firmer tendency reported in last Summary. To-day's value of dark liquid to fair setting is 37/6 to 43/-; and fair polish to fine pale set 50/- to 62/6.

LIME PRODUCTS. Lime Oil. In the absence of a demand for Handpressed, quotations are nominal. Distilled is dearer, with second-hand sales at 2/3 per lb. **Lime Juice.** Some sales of good Dominica Raw have been made at 2/2 per gallon. Concentrated is dearer, with sales up to £14 5s.

LOGWOOD remains quiet, with only a small business passing. The last quotation was nominal, at £8 per ton.

ORANGE OIL. No business in Sweet is reported on the spot; sellers are asking 8/6. There is nothing doing in Bitter.

RUBBER, on the fortnight, has been active, and a large business has been done. Prices have advanced to 1½ for spot crepe and sheet.

SPICES. The market for **Pimento** has been firm since the date of last Summary, and business for shipment from Jamaica to Hamburg has been done at 18/5, c.i.f. There has been a better demand for parcels on the spot, for which 2½d. has been paid, and holders are now asking 2½d. In **Ginger** there is no improvement in the demand for Jamaica. **Nutmegs** and **Mace** remain unchanged.

PETROLEUM. Production for November: United British Oilfields, Ltd., 4,278 tons.

The total exports from Trinidad for the ten months ending October 31st amounted to 46,980,394 galls., as compared with 35,775,598 galls. for the same period in 1921.

WEST INDIAN SECURITIES.

Div.			Label
4 1/2	Antigua ...	4 1/2 Redeemable 1919-44	62-34
3 1/2	Barbados ...	3 1/2 " " 1922-42	73-75
4	British Guiana	4 " " 1935	90-92
3	British Guiana	3 " " 1925-45	70-73
5 1/2	British Guiana	5 1/2 " " 1922	103-105
4	Grenada ...	4 " " 1917-42	82-84
4	Jamaica ...	4 " " 1914	91-93
3 1/2	Jamaica ...	3 1/2 " " 1918-48	78-80
3	Jamaica ...	3 " " 1922-44	70-72
4 1/2	St. Lucia ...	4 1/2 " " 1919-44	81-83
4	Trinidad ...	4 " " 1917-42	85-87
3 1/2	Trinidad ...	3 1/2 " " 1922-44	80-71
8 %	The Colonial Bank	...	51-4
8 %	Royal Mail Steam Packet Co. Ordinary	...	94-99
6 %	Angostura Bitters Part. Preference	...	11-12
6 %	New Trinidad Lake Asphalt Co. 6% Debentures	...	110
—	St. Madeleine Sugar ...	...	53
—	Apex (Trinidad) Oilfields, Ltd.	...	41-
—	Petroleum Options, Ltd., 10%	...	7-11 1/2
—	Trinidad Central Oilfields ...	...	30-
—	Trinidad Dominion Oil, Ltd., 10%	...	2d.
—	Trinidad Leaseholds, Ltd., 12 1/2%	...	22-8
—	United British Oilfields of Trinidad, Ltd.	...	7-11
—	General Petroleum of Trinidad	...	2-10 1/2
—	Napathna Oilfields of Trinidad	...	2-
—	Direct West India Cable Co.	...	—
—	W. I. and Panama Tel. Co. Ltd., Ordinary	...	1-4
—	W. I. and Panama Tel. Co. Ltd., 5% Cash, 1st. Pref.	...	1-14
—	W. I. and Panama Tel. Co. Ltd., 2nd	...	1-13
5 %	W. I. and Panama Tel. Co. Ltd., 5% Debentures	...	75-87.

The West India Committee Circular

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Particulars regarding membership of The West India Committee can be obtained from the Secretary, 14, Trinity Square, London, E.C. 3.

The present number completes Volume XXXVII. of THE WEST INDIA COMMITTEE CIRCULAR, the title page and index of which will be published with an early issue. Cases for binding the CIRCULAR can be supplied post free for 4s. each. Members can have their own CIRCULARS bound for the inclusive charge of 7s. 6d. on sending them, carriage paid, to the Secretary, The West India Committee Rooms, 14, Trinity Square, London, E.C. 3. Convenient, spring-backed filing cases to hold the issues for the current year as published can be obtained at the same address, post free, 3s. 6d. each.

The West India Committee Rooms.

Telephone:
MINDRIS 230/231.



14, TRINITY SQUARE,
LONDON, E.C. 3.

Telegrams:
CARR. LONDON.

December 1922

MR. ASQUITH'S ADMISSION.

THE Safeguarding of Industries Act ceased to have any immediate interest for West Indians when it was announced that its aims were purely domestic in character, and that its provisions were not to apply to foodstuffs such as sugar and cocoa. Nevertheless the discussion regarding it in the debate on the Address in the House of Commons on December 4th will have been followed with attention in the West Indies. It was quite illuminating since the speeches demonstrated the feelings of the new House towards the question of unfair trade competition due to dislocated exchanges and other causes. SIR JOHN SIMON moved to add words expressing regret that no mention was made of the repeal of the Safeguarding of Industries Act and of other protective measures which were raising prices, hampering trade and

limiting employment, and after a spirited debate the motion was defeated by 269 votes against 207. In the course of the debate many of the hackneyed "sham Free Trade" arguments were trotted out, the only really outstanding feature being an admission made by MR. ASQUITH, who, according to the official report, said "I have never made any concealment of my own views about dumping. I never did in the great fiscal controversy carried on many years ago, when MR. JOSEPH CHAMBERLAIN embarked on his campaign for what is called Tariff Reform. I have always said that Free Traders are not in any sense bound by their creed to be economic or fiscal quietists or tranquillists, and that if a case were made out where there was what I may call an organised attempt on the part of foreign producers acting, as they very often do, in rings and combinations under the shelter of a Protective Tariff of their own to try to undermine, oust and destroy particular branches of British production, there is nothing in the doctrine of Free Trade which compels me or any Free Trader to take that lying down." He added that he had said that now for twenty-five years. This declaration gives us hope that if ever again the produce of the West Indies is faced by the danger of unfair competition with subsidised or bounty-fed produce from foreign countries, those colonies will have as their champions not only the Conservative Party, but also the "Wee Frees." This is quite an encouraging outlook; but we frankly cannot recall MR. ASQUITH having raised his voice to protest against the Continental bounties that were ruining the West Indian sugar industry less than twenty-five years ago.

THE SULPHATE OF AMMONIA COMBINE.

IT is not surprising to learn that exporters of sulphate of ammonia to British Colonies are complaining at having to pay more for that fertiliser than the farmer in England is charged for it. This differentiation is one of the aftermaths of Government control. It will be recalled that during the war, when the need for raising cereals in this country was paramount, the export of sulphate of ammonia was prohibited, and it was only on the urgent representations of THE WEST INDIA COMMITTEE that permission was given for a limited quantity to be exported to the British West Indies. It was then that the Board of Agriculture sanctioned a differentiation between the prices quoted for the home producer and for export, and bearing in mind the grave emergency resulting from the shortage of food after the opening of the intensive submarine campaign no very serious complaints were made. It was hoped, however, that after the war the trade would resume its ordinary course. But

what has happened? Profiting by the experience gained during the period of Government control, the principal sulphate of ammonia producers have formed a combine and are quoting £18 per ton f.o.b. for 24½ per cent. sulphate in double bags for export, as compared with a price equivalent to £15 10s. to the English farmer. Speaking at the second annual general meeting of the British Sulphate of Ammonia Federation, Ltd., on November 16th, Mr. D. MILNE WATSON sought to justify this attitude. The market policy which the company adopted, "and which, if the district meetings recently held were any guide, had met with very general approval by the members, and had enabled the company to reply to critics who were vocal enough when the federation was formed." The critics said: "You are forming a trust, and you are going to try to squeeze the consumer." "Well," he added, "I venture to question whether the home consumer would have got his supplies at £17 last spring while foreigners had to pay up to £22 if these gentlemen had had their way and there had been no federation. I also question whether, if these critics had prevailed, well over 60 per cent. of British production would have been of the best, neutral quality as it is to-day." That is all very well. No one has complained of the quality of the goods delivered by the Federation; but there are many who will continue to be "vocal" whilst the combine is differentiating against them in favour of the home farmer. If it likes to charge the foreigner more than the British consumer for his sulphate of ammonia we could not object; but we do protest against our British West Indian consumers having to pay more for an essential fertiliser than the English farmer. Elsewhere in the present issue we publish correspondence between the Secretary of THE WEST INDIA COMMITTEE and the Federation, which throws an interesting light on the methods of that body. Mr. SPEYER, its secretary, as good as says that if the West Indian producers will inform him what their cost of production is, and what profits they are making, their application to be placed on the same footing as the English farmer will be considered by his body. This ingenuous suggestion opens up vast possibilities, and we can envisage the baker asking to see our income tax returns before quoting for the homely quarter loaf, and the old laws of supply and demand going to the wall. It is, we venture to think, most improbable that the West Indian producers will furnish Mr. SPEYER with the information for which he asks. Meanwhile, perhaps the Federation will disclose the cost of production of sulphate of ammonia, and the profits derived from its sale. As to the combine, Mr. MILNE WATSON was perfectly frank. At the meeting above referred to he said: "We lost members with a capacity of 8,558 tons per annum. We have retained members with a capacity of about 800,000 tons per annum—representing over 90 per cent. of British production. That, I think, is quite satisfactory. But I have a more satisfactory and a much more significant piece of news for you to-day. That is, that Synthetic Ammonia and Nitrates, Limited, whom I think I may fairly call the successful pioneers in the production of syn-

thetic ammonia in Great Britain, have decided to throw in their lot with us and to join the federation." In the United States combines are illegal, and it is distinctly disturbing to find them springing up in this country, especially in connexion with a commodity that so closely affects the nation's food supply as sulphate of ammonia.

THE WEST INDIA COMMITTEE.

A Welcome to Sir Graeme Thomson.

Sir Graeme Thomson, K.C.B., the Governor-designate of British Guiana, attended a meeting of the Executive of The West India Committee on December 7th, when a discussion took place, in which Sir Edward Davson, Lieut.-Colonel Ivan Davson, O.B.E., Mr. S. Cameron, Mr. R. M. B. Parker, and Mr. H. J. J. Freeman took part, regarding various matters affecting the welfare of the South American Colony, with special reference to the subject of colonisation.

Mr. Wilson-Goode, the new Trade Commissioner for the West Indies, also attended, and received an assurance from the Chairman that The West India Committee would support the objects of his mission—the development of trade between the United Kingdom and the British West Indies. Sir Edward Davson emphasised the necessity of a Trade Commissioner visiting all the West Indian Colonies.

Mr. R. Rutherford presided, and the following were present:—

Mr. Cyril Garney (Deputy-Chairman), Mr. W. Gillespie, Mr. E. A. de Pass, Mr. H. F. Previtè, Mr. S. Cameron, Sir Edward Davson, Lieut.-Colonel Ivan Davson, O.B.E., Mr. W. Fawcett, B.Sc., Mr. H. J. J. Freeman, Mr. E. Luxmoore Marshall, Mr. R. M. B. Parker, Mr. G. Moody Stuart, Mr. Algernon Aspinall, C.M.G. (Secretary), and Mr. Gifford Knight (Assistant Secretary).

The seventeen candidates whose names are given below were admitted to membership of The West India Committee, bringing the number of members elected this year up to 184.

Names.	Proposers and Secondors.
Mr. C. Victor Munn, J.P. (Jamaica).	{ Lt.-Col. O. H. E. Marescaux. Mr. E. Haughton Sanguinetti.
Mr. J. Salles-Miquelle (St. Lucia).	{ The Hon. G. Laffitte. Mr. Henry de Devaux.
Mr. Maurice Swabey (London).	{ The Hon. G. Laffitte. The Hon. Henry de Minville, J.P.
Messrs. William Gossage & Sons, Ltd. (Country).	{ Mr. R. Rutherford. Mr. W. Gillespie.
Mr. T. P. Mackenzie (Trinidad).	{ Mr. R. Poyntz Mackenzie. Captain A. S. Arrindell.
Mr. W. Mennell Walcott (Halifax, N.S.).	{ Mr. R. Parkinson Goffe. Mr. W. Fawcett, B.Sc.
The Rev. John E. Levo (Virgin Islands).	{ Mr. W. Gillespie. Mr. E. Luxmoore Marshall.
Mr. Lindsay P. Downer (Jamaica).	{ Mr. William Wilson, O.B.E. Mr. A. W. Parquharson.
Mr. G. H. Masson, M.D., D.Sc. (Trinidad).	{ Sir George R. Le Hunte, G.C.M.G. Mr. E. A. de Pass.

Name.	Proposers and Secondors.
Mr. William Nowell, D.I.C. (Trinidad).	Mr. Robert Rutherford. Mr. W. Gillespie.
Mr. C. G. K. Dawkins (London).	LT.-COL. O. H. E. Marescaux. Mr. Harold de Pass.
The Northside Planters' and Trelawny Penkeepers' Association (Jamaica).	The Hon. Guy S. Ewen. Mr. George Taylor.
Mr. S. O. Dasant (East Africa).	Mr. J. M. Gray, J.P. Mr. J. H. Aikman. Dr. A. F. M. Berkeley.
Dr. J. H. Conyers	Sir Edward Darrow.
Messrs. Maconochie Bros., Ltd. (London).	Mr. E. A. de Pass. Mr. Harold de Pass.
Messrs. John Abrahams (London).	Mr. Archibald Gordon.
Majar Pulteney W. Malcolm (Bermuda).	LT.-COL. Ivan Davson, O.B.E. Mr. W. Gillespie. Mr. E. Luxmore Marshall.

JAMAICA'S GOVERNOR.

Sir Leslie Probyn's Offer to Resign.

In the last issue of THE WEST INDIA COMMITTEE CIRCULAR some particulars were given regarding the political crisis in Jamaica, which had been brought to a head by the introduction of a resolution into the Legislative Council recording want of confidence in the Administration. The fourteen elected members voted in favour of the motion, while the vote on the Government side was not taken.

Now, the latest development in the dispute is the offer of the Governor to resign. Sir Leslie Probyn, it appears, informed the Duke of Devonshire, Secretary of State for the Colonies, that he was prepared to resign if it were necessary in the best interests of the Colony.

The Duke of Devonshire has, however, replied that he will not accept Sir Leslie's resignation.

THE SERVICE BUREAU.

During the past fortnight there has been no falling-off in the number and complexity of the enquiries which the Service Bureau of The West India Committee has been called upon to answer. They range from one from a lady who wished to know whether she could bring her favourite cat to England without it being quarantined, over a wide field of statistics relating to the sugar and cacao industries, to another from a gentleman who wished for information as to the origin of hurricanes and the direction of their course. The latter was referred to Dr. Nicholl's admirable little monograph on the subject which was published in Dominica in September last, and to "Hurricanes and Tropical Revolving Storms," in the Committee's reference library.

Questions about West Indian Income Tax legislation were numerous, and there was a significant increase in the number of enquiries relating to the West Indies as a winter resort, with special reference to steamship routes.

It is hoped that members of The West India Committee will make it widely known that the Service Bureau of The West India Committee is at the disposal of all seeking information regarding their colonies.

WEST INDIAN CRICKET.

Team to Visit England in 1923.

With the approval of the M.C.C., it has now been definitely decided to send over a representative West Indian cricket team to England during next season (1923) to test conclusions with the Counties. As before, the West Indian Club has placed its organisation at the disposal of the visitors, and proposes to raise a guarantee fund to ensure the financial success of the tour. Mr. R. H. Mallet, who has again consented to act as manager, has arranged the following programme:

MAY.

- 19.—v. CAMBRIDGE UNIV., at Cambridge.
- 23.—v. SUSSEX, at Brighton.
- 26.—v. M.C.C., at Lord's.
- 30.—v. HANTS, at Southampton.

JUNE.

- 2.—v. MIDDLESEX, at Lord's.
- 6.—v. OXFORD UNIV., at Oxford (provisional).
- 9.—v. ESSEX, at Leyton.
- 13.—v. Durham, at Darlington (2 days).
- 16.—v. Northumberland, at Newcastle (2 days).
- 20.—v. DERBY, at Buxton.
- 23.—v. NORTHANTS, at Northampton.
- 27.—v. LANCs, at Manchester.
- 30.—v. Cheshire, at Macclesfield (2 days).

JULY.

- 4.—v. NOTTS, at Nottingham.
- 7.—v. LEICESTER, at Leicester.
- 11.—v. Wiltshire, at Swindon (2 days).
- 14.—v. WARWICK, at Birmingham.
- 20.—v. Lord Harris's XI., at Belmont (2 days).
- 28.—v. GLOUCESTER, at Bristol.

AUGUST.

- 1.—v. GERRY, at the Oval.
- 4.—v. GLAMORGAN, at Cardigan.
- 8.—v. SOMERSET, at Taunton.
- 18.—v. KENT, at Canterbury.
- 22.—v. Norfolk, at Norwich (2 days).
- 29.—v. WORCESTER, at Worcester.

The 1923 eleven will be the third West Indian team to visit England. The first came over under the captaincy of Mr. R. S. Acher Warner in 1900, and played 17 matches between June and August 10th, winning 5 and losing 8, while 4 were drawn. The second team, of which Mr. H. B. Gardiner Austin was captain, played 19 matches between June 11th and August 16th, 1908, winning 7 and losing 10, while 2 were drawn. The awakening of real interest in West Indian cricket may be said to date from 1895, when Mr. R. Slade Lucas's XI. visited the West Indies. Subsequent English teams which visited those colonies were Mr. (now Sir) Arthur Priestley's and Lord Hawke's in 1897, Viscount Brackley's in 1905, and the M.C.C., captained by Mr. Arthur Somerset, in 1911.

Two of the mole-cricket which play such havoc with lawns and pitches devoted to the sport with which part of their name is identified in Trinidad have arrived from the island, and have been placed on "exhibition" at the Zoological Gardens.

VISCOUNT BURNHAM'S TOUR.

Visits to the Bahamas and Jamaica.

Lord Burnham, accompanied by Lady Burnham and Mr. H. E. Turner, Secretary of the Empire Press Union, to whose forthcoming visit to the West Indies reference was made in THE WEST INDIA COMMITTEE CIRCULAR of September 25th (page 448), will leave England on January 10th in the *Olympic* for New York, whence he will proceed to Nassau, Bahamas, and Kingston, Jamaica, in the *Orca*. His stay in Jamaica is expected to last from February 3rd to 17th.

At a meeting of the Council of the Empire Press Union on December 6th, Lord Burnham made the following reference to his coming tour:—

"When I was in Canada with many of my colleagues of the Press two years ago, I received a personal invitation from Mr. de Lisser, who is not only, of course, a newspaper editor and proprietor in Jamaica, but also is largely concerned in the public life of the island, to pay a visit to the West Indies. He said that it would be of great benefit from every point of view, not least from that of newspaper organisation and efficiency, if a visit were paid by the Empire Press Union, in the person of its President and any of its officers or committee who could spare the time, to Jamaica at an early date, and if possible, of course, to other West Indian Islands. I noted the invitation with great pleasure, and I assured him that I would try to find the necessary opportunity, if I could, in the next few years. That invitation was repeated in the course of the early autumn, after, I think, letters had passed between Mr. Turner and Mr. de Lisser, in a very emphatic way, and it was endorsed by the Imperial Association of Jamaica, which is, I understand, a body representing all the interests of the island, and subsequently by those who speak for the different Parliaments or Legislative Councils. It so happens that I am Vice-Chairman, under Lord Balfour, of the Empire Parliamentary Association, which has held its annual meeting, under the presidency of the Speaker of the House of Commons, this morning, and, not unnaturally, the different Parliamentary institutions in the island wished to come into closer contact with the Parliamentary Association at the same time as the Newspaper Press. Invitations were extended to the Empire Parliamentary Association to send a delegation for that purpose. It has been found impossible to do it under the circumstances of to-day, which do not really permit of the absence of Members of Parliament—Members of the House of Commons, at all events—at this time, when there are such difficult questions before the House. On the other hand, it was the desire of the Empire Parliamentary Association to take advantage of any visit of the sort I have outlined to draw closer the relations between the Parliamentary bodies out there and the Houses of Parliament here. That is not, of course, our side of the matter. We are concerned here with the Press relations, and also, I think, taking a broad view of Imperial interest, not only the relations, but also the Press conditions in the West Indies.

"It would be folly to pretend that the West Indies are very happy at the present moment, either in their political or in their industrial circumstances. There is a good deal of discontent and dissatisfaction as to what is wanting at present, in what they think they

have almost a right to on behalf of the Mother Country; but, of course, I am not entering into that matter now. I believe that applies especially to the means of communication. As you know, the subsidy of the mail steamships has fallen through, and it is notorious that the Press rates and the telegraphic facilities are very inadequate or prohibitive. The Press rates are prohibitive and the facilities very inadequate. It is my hope that in going there one may be able to do something to improve the situation from several points of view. For that reason I accepted, with the proviso that one always has to put in as to the possibilities of the case, the invitation to Jamaica, and certainly one of the West Indian Islands besides, in the early months of the year. I do it, of course, of my individual volition, but at the same time I believe—I hope—that I may obtain the assent and support of this country to represent the Empire Press Union in that way. (Hear, hear.)

"In communicating with Mr. de Lisser, I did admire some sort of conference, while I was there, with the Newspaper Press of the West Indies. In reply he says that the communications are so irregular and insufficient that it may not be possible to bring many representatives of the newspapers of the other islands to Kingston at that time, but that they will all communicate in some way with him, and that it would be a great advantage to have a general discussion in regard to the interests of the Newspaper Press, looked at in the clearest light, whilst I am there. Personally I do not think that I could undertake without assistance to put into form any proposals that may be made, not to work out the details of any reforms that may be suggested. For that reason I wish to be accompanied by Mr. Turner. He, of course, in the servant of this Union, and he cannot go without the leave of the Council. He will be able to make such arrangements that none of the business of our Overseas Circle or of our home members will be neglected, and I think it would be an advantage to him to come into personal contact with those who manage and conduct the newspapers of the West Indies. We all feel that the West Indies are perhaps the most afflicted part of our Imperial patrimony. That is saying a good deal, I know, but we all feel that on the whole; and if we can do anything to remove that reproach, in however slight a degree, it will, of course, be to the good. May I point out, too, that it intimately concerns our Canadian branch, because, as we know there are special arrangements now between Canada and the West Indies in regard to preferential terms of trade, and I fancy that every year the ties between Canada and the West Indies are becoming closer. Therefore, in a sense, in doing anything in regard to the West Indian Press, we shall be acting on behalf of the Canadian branch as well as for ourselves. If it were possible for a representative of the Canadian Press to be there at the same time, it would, of course, be of great advantage, but I do not know whether, beyond local correspondence, they have the means of sending any special delegation or representative. I put this before you, ladies and gentlemen, because I am rather confident that you will think on the whole it is a good move, and that you will be prepared to support it. It seems to me to be continuing the work of the Imperial Press Conferences, so far as circumstances allow, on the same lines and in the same spirit. I venture, therefore, to ask you to grant leave of absence to Mr. Turner for that purpose for a period of eight weeks, sailing on the 10th of January from this country, and being able to report for duty again about the beginning of March."

CABLE COMMUNICATION.

West Indian telegraphic communications were very fully discussed at a meeting of the Cable and Wireless Communications Committee of the Empire Press Union, on December 15th.

Mr. Algernon Aspinall, Secretary of The West India Committee, attended the meeting by invitation, and explained the needs of that part of the Empire for more adequate means of communication with the Mother Country. Jamaica, he said, was better off than the other islands, and the cable there was working quite efficiently. In the other islands, however, interruptions had been constant, almost every message was mutilated, and the Press rates were as high as 1s. a word, which stifled enterprise and meant that Press messages did not pass freely between this country and the West Indies. Telegraphically the British West Indies were served by (a) The Halifax and Bermuda Cable Company and the Direct West India Cable Company; (b) the West India and Panama Telegraph Company and the Cuba Submarine Telegraph Company; and (c) a few wireless stations. The service of the first series was entirely satisfactory, and since the subsidy from the Government of Jamaica to the Direct West India Cable Company was reduced in 1903 from £2,000 to £1,000 per annum no reductions had been made in the Press messages supplied, and the company at the present time was supplying Jamaica with over 2,000 words daily at a cost exceeding the £1,000 received from the Jamaica Government. The second service, which linked up the West Indies with Key West, Florida, had been most unsatisfactory and the subject of constant complaints. The company had duplicate cables, and even when both were working, the messages must pass through foreign territory twice on their way to the British Antilles. Messages could only be sent via Bermuda when the senders insisted on so marking their messages, and block rates were imposed against "Via Bermuda" traffic by the West India and Panama Telegraph Company, which insisted that the words indicating the office of origin should be paid for on all this traffic. In 1914 His Majesty's Government, the Canadian Government, and the Governments of the British West Indian Islands (Jamaica excepted), and British Guiana entered into an agreement with the West India and Panama Telegraph Company for ten years, granting to it a subsidy of £26,300 (£8,000 each from the Imperial and Canadian Governments, and £10,300 from Colonial funds) in return for reductions of rates, and this agreement would not expire until August, 1924. Meanwhile, during the war, the cables collapsed, and the state of telegraphic communication beyond Jamaica became chaotic. For months the principal

British West Indian islands and British Guiana were practically cut off from cable communication, and this, coming at a time when the sugar crop was being reaped and the sugar market was in an excited state, resulted in losses computed to amount to the best part of £1,000,000. This state of affairs brought about a crisis in the finances of the West India and Panama Telegraph Company, and eventually the Governments concerned sanctioned an increase in the message rate by 6d. per word on the through rate and by one-third of the present charges on the inter-islands routes up to March 31st next, and the agreement sanctioning these increases was adopted by Parliament on December 8th, 1922. This brought the general West Indian



Viscount Burnham, G.H.

Lord Burnham, who as President of the Empire Press Union and of the Parliamentary Association, is about to visit Jamaica (and Nassau en route) at the invitation of the Jamaica Imperial Association. Proprietor of the *Daily Telegraph*, Lord Burnham, then the Hon. H. L. W. Lawson represented the Mile End Division in the House of Commons from 1910 until 1916, when he succeeded his father as Baron Burnham. He was created a Viscount in 1919.

message rate to 3s. a word, compared with 2s. 6d. per word under the previous agreement, and with rates varying from 4s. 2d. to as much as 5s. 6d. per word immediately before. It was recognised that this increase was purely a temporary measure, and it was doubtful whether it would achieve its purpose of bringing in more revenue, since many considered that it would be followed by a falling-off in the traffic. The best that could be done in the circumstances, however, was to emphasise the importance of taking early steps to provide for the laying of new cables before the present contract expired in August, 1924.

The West India Committee, said Mr. Aspinall, had for many years past consistently urged that the best means of dealing with the question of West Indian cable communication would be by extending the Halifax-Bermuda system to Barbados and (or) Trinidad and British Guiana. It was understood that negotiations for carrying out these proposals were now

proceeding, though it was probable that it might be necessary to lay the new cables from Turks Islands to the Lesser Antilles instead of direct from Bermuda, owing to the fact that a survey of the bed of the ocean between Bermuda and Barbados would be costly. In regard to the third series—wireless—Mr. Aspinall said the sub-committee appointed by the Imperial Communications Committee in 1920 rejected wireless on account of the heavy cost which would be involved, strategic considerations, and difficulty due to atmospheric conditions. Many, however, were convinced that wireless could be used effectively in the West Indies in support of the cable system, though the immediate object to be aimed at should undoubtedly be the extension of the Halifax-Bermuda cables to the Lesser Antilles, either direct or via the Turks Islands.

Lord Burnham, who followed, read a statement concerning the possibilities of wireless telegraphy for the West Indies. The upkeep of cables in the West Indies, it said, was exceptionally heavy owing to the fact that the cables were laid on a sea-bed of a volcanic character, the cables being damaged at frequent intervals by chafing on the rocky bottom. This peculiar disadvantage did not apply to wireless. Marconi's Wireless Telegraph Co. had plans for the erection and operation of stations which would provide for local needs and the much-desired channel of wireless communication to and from the West Indies.

Sir Roderick Jones (Reuter's) said a great case had been made out for inter-island and wireless communication, but it was a question of money. Until Governments or individuals were prepared to put up the money there would not be any improvement. What was really wanted was an improvement in the cable system, together with co-operation between the cable and wireless systems. This, of course, presupposed the expenditure of money, and at present there seemed no inclination on the part of Governments to spend.

Lord Burnham then moved a resolution, which was seconded by Sir Roderick Jones and carried unanimously, calling attention to the difficulties and uncertainties of telegraphic communication with and between the West Indian islands, and to the high message rates, which effectively prevent any interchange of Press news other than that contained in the official bulletins, and urging his Majesty's Government and the other Governments concerned to take prompt and active measures to procure the extension of the cable system from Bermuda to Barbados, Trinidad, and British Guiana, either direct or by way of Turks Islands, and to make arrangements for linking up the smaller islands by wireless wherever practicable.

ing point concerning the machinery section of the show was that a prominent firm thought the writer's suggestion practicable to establish a machine and implement-testing station at the West Indian Agricultural College, the machines and implements being supplied on a special basis as regards costs.

West Indians will have learnt that both the King and the Prince of Wales were successful at this year's show, His Majesty securing a larger number of individual prizes than any other breeder. The only unsatisfactory feature of the show was the prominent claims of molassic as a cattle food. English breeders need to realise that the sugar-cane product, "Molassic," is far preferable to the "beet" product.

SMITHFIELD CATTLE SHOW.

Points of Interest to the West Indies.

By W. R. DUNLOP.

An English cattle show which is primarily devoted to the exhibition of fattened beasts might reasonably be considered to have little practical bearing on tropical agriculture; but it so happens that the Smithfield show is much more comprehensive than its name implies, and even in regard to the display of fattened cattle there are points of interest for the West Indian planter.

To anyone whose eyes have become used to West Indian herds, the square, well-covered animals at Smithfield this year, with backs as flat as the top of a table, seemed almost like freakish phenomena. The Herefords, a breed popular in the West Indies, were well represented, and from figures published recently in the *Agricultural Gazette* the average gain per day in lbs. of the exhibited beasts while fattening was 2.09. For Red Polls and Aberdeen Angus, breeds favoured in Trinidad and Jamaica respectively, the daily fattening figures were 1.77 and 1.88. The Friesian (Holstein) average was 2.06. This is rather interesting because this Dutch breed is greatly favoured for milk in the West Indies, and the figure just given may be suggestive as to its possibilities for meat.

The champion beast of the show was Sir Richard Cooper's "Blue Bill"—a two and a half year old Shorthorn-Aberdeen Angus steer which weighed 15 cwt. 8 qrs. 24 lbs.

Fat sheep and pigs are represented at the Smithfield show, as well as cattle. Amongst pigs, the Large Blacks, a breed well suited to the West Indies, were prominent this year. Of all breeds they showed the highest gain per day while fattening, the figure being 1.47, against 1.21 lbs. for Berkshires—another popular West Indian pig. While these figures are suggestive, they must not be taken as absolutely discriminative for reasons that are statistical. Perhaps their greatest value will be to encourage West Indian breeders to weigh their own pigs systematically for purposes of comparison. English breeders can scarcely believe that animals are never weighed in the West Indies.

Agricultural machinery was a prominent feature of this year's show. There was a good display of tractors, but the steam cable still seems to be holding its own. A prominent firm's representative stated that where crude oil is available at a cheap rate, steam power is far more economical than the internal combustion engine. Asked why English prices were so high compared with American, the reply was that depreciation is less. There was interesting refrigerating machinery on view. A plant for bacon curing, to deal with about forty pigs a week under English conditions, was quoted at £200. For tropical conditions, where higher temperatures have to be overcome, the price (c.i.f.) would be about double. This information has reference to recent proposals in connection with starting a pork and bacon factory in the West Indies. An interest-

(Continued at foot of next column.)

SOME NOTES OF INTEREST.

"Every something know him own trouble."

* * *

In the leading article in last issue on the subject of Pellagra in Barbados, "sodium tri-sulphite" should read "Tri-sodium citrate."

* * *

It is difficult to see how rum can be made to figure as sherry, but in 1921 a conviction was obtained in Jamaica in the case of rum flavoured locally being sold as such.

* * *

In Hawaii, the Sugar Planters' Association spends about a million dollars yearly in the employment of experts and in keeping in touch with the developments of the sugar industry in other parts of the world.

* * *

The commercial production of oil from pea-nuts has developed largely in the last few years, and as a result there is now a considerable amount of pea-nut cake manufactured suitable for feed purposes for stock.

* * *

In the last United States Budget as passed by Congress, the sum allocated to the Department of Agriculture was \$36,774,178, which included \$800,000 for printing. The largest allotment was to the Bureau of Animal Industry, which receives \$6,968,076.

* * *

SIR LESLIE SCOTT, K.C., M.P., has been appointed a Director of the Royal Mail Steam Packet Co. Sir Leslie, who represents the Exchange Division of Liverpool, is an acknowledged authority on Maritime Law, and has many other wide and varied interests, notably agricultural organisation, housing, and social reform.

* * *

As the outcome of the interest awakened by an account of the British Empire Exhibition's aims and activities contributed by the writer of the London Letter in the *Trinidad Guardian*, it is understood that the Legislature of Trinidad will have under consideration early in the new year the question of participation in the Exhibition.

* * *

No one could truthfully assert that the British West Indies have not recently been receiving their fair share of attention from the Press. During the past fortnight articles regarding the West Indian Agricultural College have appeared in *The Field*, by Mr. W. R. Dunlop (December 2nd), in *The Statist* of the same date, and in *Nature*, by Professor J. B. Farmer, F.R.S. (December 9th).

* * *

For the five years preceding the annexation of the Philippines by the United States the average sugar export was much the same as it is now, viz., 250,000 tons annually. The only difference is that in the Spanish days the exports consisted of low-grade Muscovado, while now they are principally

centrifugal sugar. The quantity of canes grown would, therefore, be less now than in the Spanish days.

* * *

The annual dinner of the staff of Elders & Fyffes, Ltd., which was held at the Connaught Rooms on December 1st, under the chairmanship of Mr. Robert Clark, again demonstrated the loyalty of the members and employees of that great firm. The proceedings were marked by the enthusiasm of the participants, who cheered the amusing speeches of Mr. A. H. Stockley, Mr. A. Roger Ackerley, and others, to the echo.

* * *

SOME idea of the magnitude of the British Empire Exhibition may be gauged from the following list of material used in the construction of its buildings and stadium up to the end of November:—Cement, 6,800 tons; ballast, 85,400 tons; bricks, 360,000; ashes, 14,200 tons; coal, 1,975 tons; sand, 5,400 tons; roofing, 3,000 squares; reinforcing steel, 1,350 tons; constructional steel, 1,350 tons; and drain pipes, 88,000 feet.

* * *

The following have been amongst the visitors to The West India Committee Rooms during the past fortnight:—

Hon. T. A. V. Best, C.M.G., C.B.E., Mr. E. H. Brown, Mr. R. Bryson, Mr. C. C. Dymoc, Sir Charles Davson, K.C., Mr. Benjamin Gainfort, Sir William Grey-Wilson, K.C.M.G., K.B.E., Mr. A. K. Petrie-Hay, Mr. W. A. R. McRae, Mrs. E. A. Robinson, Mr. J. Herbert Scrutton, Mr. and Mrs. Howard Smith, Dr. Tolkosky, Major and Mrs. Randolph Rust, and Lady Dorothy Wood.

* * *

The Rev. Mr. Smith, in his "Natural History of Nevis," published in 1745, states that Mount Misery, the dormant volcano in St. Kitts, received its name through a "rash, foolhardy Person, who in attempting to get up so steep a Precipice fell backwards, and met with *Phæton's* destiny, of course." According to Joseph John Gurney's "A Winter in the West Indies," 1841, it was decided, after the emancipation of the slaves, to rename the mountain "Mount Liberty." It is still, however, called Mount Misery.

* * *

ANNATTO seed is largely imported by certain Danish manufacturers for use in the manufacture of butter-colouring material. They boil it with certain other ingredients, including linseed oil, boric acid, soda, salt and timuol, to form the finished butter-colouring which is generally used by the Danish dairies. This Danish product is sold by weight in quantities as desired by the consumers. The price of annatto seed varies very considerably according to the quality, there being several qualities offered on the Danish market.

* * *

MR. W. FAWCETT, B.Sc., late Director of Public Gardens and Plantations in Jamaica, is throwing much energy and enthusiasm into the proposals for establishing a West Indian Garden at the British Empire Exhibition. Since his retirement, Mr. Fawcett has been busily engaged in writing "The

Flora of Jamaica," of which three volumes have already been published by the British Museum. Each volume has taken no less than four years to compile, which shows what a mass of research work is involved in this labour of love.

* * *

THE sugar content of the beets in the 1922 United States beet crop has been lower than usual, and coincides with the drop in the beet sugar content in Germany and other parts of the world. As *Facts about Sugar* points out, this parallel relation between the quality of the roots in widely separated producing countries has been noticed for some years, and beet sugar agriculturists consider it as being more than a coincidence, and that it is due to a surplus or deficiency of some meteorological factor on a world-wide, universal scale.

* * *

SEVERAL sons of Jamaica figure in the list of academic successes gained by Rhodes Scholars at Oxford during the present year. These include Mr. J. D. Mills (Lincoln), who obtained a Second Class in the final honour School of Natural Science; Mr. C. M. Coke, of the same college, who was placed by the examiners in the Third Class in the "Greats" School; and Mr. M. V. Lockett (St. John's), who passed Part I. of the final honour School of Chemistry; whilst Mr. C. McL. Morales (Oriel) obtained an Education Diploma. Mr. Mills had also the distinction of being awarded the Theodore Williams Scholarship in Pathology.

* * *

THE July number of the *Philippine Journal of Science*, on the subject of etherised alcohol for motors, says: "The alcohol mixtures have been thoroughly tested, and they compare favourably with gasoline. The mileage obtained is equal or superior to that obtained with gasoline; there is no carbon deposit left in the cylinders; the acids formed are neutralised by the pyridine or ammonia present, hence there is no corrosion; there is less tendency toward knocking, resulting in a smoother running engine; the heat of combustion is lower, hence the engine is less liable to overheat; in case of fire it can be extinguished with water; an engine can be started more easily from the cold than with gasoline; there is less fouling of the spark plugs and lower consumption of oil."

LOB-LOLLIE.—"But the Negroes use the *Mayer* another way, which is, toasting the ears of it at the fire, and to eating it warm off the care. And we have a way, to feed our Christian servants with this *Mayer*, which is, by pounding it in a large Mortar, and boiling it in water, to the thickness of Frumentie; and to put in a Tray such a quantity, as will serve a coffee of seven or eight people; give it them cold, and fearce afford them falt with it. This we call *Lob-lollie*. But the Negroes when they come to be fed with this, are much discontented, and erie out, O! O! No more *Lob-loh*."—Richard Ligon, 1657.

West Indian recipes for publication in this column will be welcomed by the Editor.

WEST INDIAN TRADE.

Mr. A. W. Hall's Valuable Report.

The Department of Overseas Trade has just published a Report on economic and financial conditions in the British West Indies, up to June 30th, 1922, written by Mr. A. W. H. Hall, Officer-in-charge, Trade Commissioner's Office, Trinidad. The report follows the lines of that issued last year, and contains chapters on Finance, Industries and Exports, Imports (with especial reference to foreign competition), Transport and Communications, Legislation, and Social Questions.

The Report is furnished with exhaustive trade and other statistics for the years 1920 and 1921, besides shipping figures for the years 1918, 1920 and 1921, and the following table showing the area, population, revenue, and trade of the Colonies in the territory covered by H.M. Trade Commissioner in the British West Indies will sufficiently indicate the thoroughness with which Mr. Hall has performed his task:—

	Area	Popula- (Jan. 1921 Census—	Revenue 1921.	Exports 1921.	Imports 1921.
	Sq. Miles.		£	£	£
Jamaica	4,207	847,921	1,960,168	3,357,692	5,173,790
Turks, Caicos and Cayman Islands	258	10,865	—	—	—
Trinidad and Tobago	1,868	362,781	1,867,944	4,681,988	6,903,694
British Guiana	90,300	297,691	968,947	3,424,490	3,272,968
Barbados	165	156,312	110,813	1,467,903	2,642,273
Bahamas	4,404	53,031	100,987	178,170	1,098,999
British Honduras	8,998	45,317	171,927	1,051,181*	1,324,315*
Leeward Islands—					
Antigua and Barbuda	170	29,767	87,948	582,450*	388,360
St. Kitts-Nevis	180	38,214	85,841	768,364*	564,117*
Dominica	305	37,079	57,139	231,540*	286,168*
Montserrat	72	12,120	17,371	65,696	41,090
Virgin Islands	58	5,082	12,259	12,964†	14,852*
Windward Islands—					
Grenada and Carriacou	133	66,302	97,932	379,217	258,711
St. Lucia	233	51,505	99,147	307,548	217,507
St. Vincent and Grenadines	150	54,014	53,806	130,739	144,543
Bermuda	144	21,987	219,753*	265,868*	1,414,250*

* 1920.

† 1919.

The Report, which is published at 1s. net, is obtainable, either directly or through any bookseller, from H.M. Stationery Office, Imperial House, Kingsway, W.C.2; 37, Peter Street, Manchester; 1, St. Andrew's Crescent, Cardiff; and 28, FORTH Street, Edinburgh; or from Messrs. Eason & Son, Ltd., 40 and 41, Lower Sackville Street, Dublin.

Regarding the two principal West Indian staples, sugar and cocoa, Mr. Hall makes the following remarks: "The prosperity of most of the West Indian colonies depends upon the cultivation of the sugar-cane. In Barbados sugar, syrup and rum are practically the only articles of export, and in British Guiana, Trinidad, Jamaica and some of the Leeward and Windward Islands cane cultivation gives employment to the majority of the population. Furthermore the Colonial Governments look to the excise duties on rum and the export duties on cane products to provide a large proportion of the revenue (in Trinidad this proportion is one-third). The results of the cane crop, the cutting and grinding of which have just ended, are not yet known, but, although some colonies have had another bad year, the total production of the British West Indies has certainly exceeded that of 1921.

" Estates and cane farmers experienced great difficulty last year in repaying loans, and, consequently, in making fresh borrowings against the 1921-22 crop. The relief afforded by the Colonial Governments in Jamaica, British Guiana and Barbados, was dealt with in the previous section. As in the case of other products the export duties on sugar and rum have been reduced or dropped altogether. Although it is generally admitted that the Colonial Governments can do no more to assist this important industry, West Indian merchants felt that this help would not be sufficient to save it. The new American customs tariff admits sugar from American territory free of duty, and places a tax of about £9 per ton on foreign sugars. This preference of £9 compares with the United Kingdom preference of about £4. The inability of the Cuban producers to place more than a small part of their huge production in the United States makes it necessary for them to attempt to dump the balance on the British and Canadian markets. It has therefore been urged that the British Government should assist the West Indian producers to meet this powerful competition by granting a preference on Empire produced sugars equal to that given by the United States to her colonials. Representations on this point made by the various sugar producing colonies have been unsuccessful, but meanwhile there has been a steady rise in the market price of sugar which has relieved the present situation to some extent.

" The future of the sugar industry in the British West Indies is therefore very uncertain. There are signs that unless there is a great improvement in the prospect for Empire sugar, production in British Guiana and Jamaica will decrease. This may also be true of the other producing colonies, but the movement towards reduced production is not so evident at present. A satisfactory feature this year is the marked increase in the exports of sugar to Canada.

" The difficulties of sugar factories are further increased by the total absence of demand for rum, large stocks of which are on hand in both the United Kingdom and the British West Indies. There are nearly one million gallons in Jamaica alone, while the stocks in the United Kingdom exceed 11,000,000 gallons. Among the efforts to solve the problem of the utilization of this by-product of the sugar industry may be mentioned the manufacture of industrial alcohol in British Guiana for local use and of boy-rum in St. Lucia.

" The exports of cocoa from Trinidad during 1921 were considerably above the average. This was accounted for in part by the fact that the crop which generally starts about October or November was very late, and practically the whole of the large 1920-21 crop was exported during the latter year. The 1921-22 crop has been disappointing. Prices during 1921 were so low that money is not available for the cost of cultivation. There was a rise in the local prices to 15.00 dollars per *fanega* of 110 lbs. at the end of 1921, but this price has not been maintained, and on the whole the prospects of cocoa planters are not bright. The Agricultural Society of Trinidad have had under con-

(Continued at foot of next column.)

THE WEST INDIES AT WEMBLEY.

The third meeting of the West Indian and Atlantic Group Committee for the British Empire Exhibition, 1924, was held at 14, Trinity Square, on December 18th, when those present included Mr. R. Rutherford, Mr. Cyril Gurney, Sir George Le Huute, G.C.M.G., Sir Walter Egerton, K.C.M.G., Sir William Grey Wilson, K.C.M.G., K.B.E., Mr. Algernon Aspinall, C.M.G. (Commissioner), Mr. Ernest H. Brown, Mr. R. Bryson, Mr. W. Fawcett, B.Sc., Mr. E. D. Laborde, I.S.O., Mr. Boswell Tucker, and Mr. Gilfred Knight, Acting Hon. Secretary.

Mr. Gurney said that he had been invited by Mr. Rutherford, who would be late, to occupy the chair at the outset, and the Minutes of the preceding meeting having been confirmed, the Committee had under consideration draft estimates which had been prepared by the Commissioner. These were amended and approved, but it was felt that no good purpose would be served by publishing them at this juncture, as they must necessarily be incomplete.

A memorandum prepared by Mr. Fawcett, in consultation with Mr. William Watson, late of Kew, giving details of his proposals for establishing a West Indian garden at the Exhibition, met with warm approval, it being felt that such a pleasure would prove a very great attraction. Mr. Fawcett, at the request of the meeting, kindly undertook to prepare a letter on the subject for communication to the Governments of Jamaica and Trinidad, which were regarded as the Colonies most likely to send over the necessary plants and trees for the garden. It was agreed that it would also be desirable to bring over parties of Carib basket-makers and Jamaican jippi jappa hat manufacturers, whose goods should meet with a ready sale, and also to provide a practical cigar-making exhibit.

Mr. Rutherford then entered the meeting and took the chair, and on consideration of the proposed visit of a representative of the Management Committee to the West Indies, the Committee reaffirmed their conviction that this would be absolutely necessary. The Commissioner called attention to a suggestion made in the *West Indian* of November 3rd that the shipping companies should be induced to arrange cheap trips from the West Indies in 1924, which, he said, struck him as being a very practical and useful one. The Committee concurred in this view, and it was agreed to communicate with the shipping companies on the subject.

It was further decided to obtain estimates regarding the cost of displaying cinematograph films of the West Indian and Atlantic colonies.

consideration the possibility of establishing a local chocolate making industry, but no report on the subject has been issued. The latest export figures available are as follows:—

	1921.	1922.
	cwts.	cwts.
Trinidad (Jan.-June)	432,674	300,219
Grenada (Jan.-June)	73,519	48,018
Jamaica (Jan.-June)	33,883	47,881

THE JAMAICA WAR MEMORIAL.

Impressive Unveiling Ceremony.

A simple but beautiful Memorial to the men of Jamaica who fell in the Great War was unveiled in Kingston by Colonel Herbert Bryan, C.M.G., the Acting Governor of Jamaica, on Armistice Day. It was designed by Mr. J. G. Young and Mr. E. A. L. Martyn, both A.R.I.B.A., and, as will be seen from the photographs reproduced in these pages, it takes the form of a tall cross placed in the centre of a square paved enclosure surrounded by dwarf walls

The unveiling ceremony took place at 10.45 a.m. After the singing of the hymn, "All people that on earth do dwell," Colonel Bryan pulled a cord which released the flags covering the Cross, and the Assistant Bishop of Jamaica delivered a short dedication prayer. The buglers then sounded the Last Post, and after the two minutes' impressive silence the Reveille. Kipling's "Recessional" was next sung, and, the Acting Governor having laid a wreath on the memorial, and the Bishop having pronounced the Benediction, the proceedings were brought to a close by the singing of the National Anthem.



The Jamaica War Memorial.

This handsome Cross, erected to the memory of the Jamaicans who fell in the Great War, was unveiled by the Acting Governor, Colonel Herbert Bryan, D.S.O., on Armistice Day, November 11th.

in the garden to the east of the East Block of the Public Buildings. The Cross and steps are made from stone quarried at Knockalva, the estate of Mr. Maurice Malcolm in St. James's, whilst the marble used in four of the panels of the base was from Serge Island, in St. Thomas, the property of Mr. Henry Holgate. Mr. Frank Cundall, who furnished this information, states that it is believed that this is the first time that Jamaica-quarried marble has been used for decorative purposes, and in this connection it may be noted that samples of these marbles received recently by the Service Bureau of The West India Committee are being shown by them to the trade with a view to testing their commercial possibilities.

THE P.S.N.C. AND JAMAICA.

The Pacific Steam Navigation Company now announce further sailings to and from Jamaica besides those scheduled in the last issue of THE WEST INDIA COMMITTEE CIRCULAR. These are by the *Orita* (9,298 tons), which leaves Liverpool for Bermuda and Jamaica to-day, and the *Orcoma* (11,571 tons), which leaves Jamaica on January 9th and Bermuda on January 13th for England. The *Orcoma* is the finest and largest vessel in the P.S.N.C. fleet. Folders of this and other companies serving the West Indies can be obtained from the Service Bureau of The West India Committee, 14, Trinity Square, E.C.3.

JAMAICA GOVERNMENT FARMS.

The Government Stock Farm at Hope, Jamaica, was started in 1910, during the administration of Sir Sydney Olivier, with a view to providing a dairy farm as an agricultural basis for the newly-established "Farm School." For this object the surplus lands of Hope Gardens were available, which, when cleared, afforded about fifty acres of useful grass lands. This area not being considered adequate, the waste lands of the old Hope Estate, which remained after the purchase, in 1849, of the sugar lands and the water supply of Hope, for the

cluding water supplies and the establishment of 1,200 trees of the "Bombay" mango, a celebrated species. £3,800 has also during this period been spent on imported livestock, and £214 on poultry. The Farm now possesses silo capacity for 800 tons of guinea corn silage, and oil-engine capacity to the extent of 52 h.p., machinery being used for making silos, grinding feed, and shredding sugar-canes—essential operations for the maintenance of a steady supply of milk, especially in times of drought.

The estimated value of the livestock on the Farm on the 31st of December last was £9,256, represented by cattle £8,962, horse-kind £168, poultry



Armistice Day in Jamaica.

Some of the groups and spectators on the occasion of the unveiling of the Jamaica War Memorial are here depicted. Disabled men of the B.W.I. Regiment who lost limbs in 1915-18 form a pathetic group in their wheeled chairs.

purpose of the Liguanea and Kingston Water Supply, that had remained in the ownership of the Duke of Buckingham, were leased at a rental of £200 per annum. The area of these lands was 1,600 acres, the major part overgrown with bush, and only a small proportion at that time being suitable for grazing purposes. In 1913, however, the Government acquired the property for the sum of £5,443, since when the Farm has had the use of it free of charge.

The work of the last twelve years has been one of development. Out of its earnings, says the Report of the Jamaica Department of Agriculture, the Farm has expended the sum of £3,193 in clearing, stumping, planting and improvements, in-

£71, and bees £25. There were at this date 125 pedigree cattle and 172 non-pedigree cattle, one gelding, eight working mules, four pens of poultry, and 20 colonies of bees. The quantity of milk yielded during 1921 by an average of 66 cows was 107,056 quarts, of high quality, the average specific gravity of the milk supplied to the Public Hospital in Kingston and the Lunatic Asylum having been in the year 1921-22, 1.0299, the proportion of solids 13.02 per cent., of which 4.40 per cent. was cream. This is stated to have been 25 per cent. better than the milk previously supplied to these institutions from contractors, and it compares very favourably indeed with the best United Kingdom product. Since its inception, also, the Hope Farm has sup-

plied to the public 242 dairy bulls, thus materially benefiting the island dairy industries.

The Report speaks very hopefully of the South American "anti-tick" grass, the planting of which by Mr. Malcolm, of Knockalva, on his estate was referred to in a recent WEST INDIA COMMITTEE CIRCULAR. This, the botanic name of which is *Melinis minutiflora*, is stated to be very resistant to drought, and as having killed out all competitors, including "Para grass," at Hope. It is important to note, also, that its peculiar aroma does not prevent cattle eating it with relish; and further, in a short trial, it did not appear to affect the flavour of the milk.

It is also interesting to note that the Uba cane, which at the present time is so much in the eyes of cane sugar producers on account of its success in Africa, had been found to be a splendid fodder in dry weather for cows, which, when it is mixed with a little cotton-seed meal, devour it greedily.

In 1920, with the view of improving the breed of cattle in Jamaica, the Legislative Council decided to establish a stud farm, and Grove Place, in the Manchester district, was purchased for the purpose. The property consisted of 3,362 acres, of which 1,153 acres were in pasture, and up to the 31st of March last £5,865 had been expended on the purchase of livestock, £1,040 on "dead" stock, such as oil-engines, silage machinery, carts, waggons, etc., and £5,446 on capital improvements, such as houses, stables, repairs, etc. The concern is faced with the serious depression in values, which has affected all enterprises launched in 1920, and this has resulted in an estimated decrease in the value of the livestock over first cost of £1,294. The stock on the property included 302 head of cattle and 43 head of horse-kind. The present position of the Grove Place Farm is one of construction and development, and it is anticipated that a few years will be required before a substantial income to set off against the cost of the enterprise can be realised.

CONSTITUTIONAL CHANGES.

Mr. Wood's recommendation in his Report (page 27) regarding the use of the Official Majority in the Legislative Councils of the Leeward and the Windward Islands, and in the Court of Policy of British Guiana, has now been accepted by the Colonial Office. It will be recalled that Mr. Wood suggested that when there was such unanimous opposition on the part of all the unofficial members of the Council, the Governor should refrain from bringing the contested measures into operation until further reference to the Secretary of State.

In a Colonial Office despatch to the Governor of the Windward Islands, the lines on which the new procedure will operate are laid down.

"The fact," says the Secretary of State, "that during the deliberation of a measure the Government has insisted on provisions which are objected to by the whole of the unofficial members should not prevent the Bill from being proceeded with, so far as a third reading. Then, if the third reading is only carried by the official majority, the Governor should, in accordance with the procedure now approved, withhold his assent until reference has been made to the

(Continued at foot of next column.)

SULPHATE OF AMMONIA.

Combine's Astonishing Request.

The following correspondence which has passed between the Secretary of The West India Committee and the British Sulphate of Ammonia Federation is published for information:—

THE WEST INDIA COMMITTEE.

14, Trinity Square,

December 8th, 1922.

Dear Sir,—The attention of my Committee has been called to the fact that a higher price is being charged for sulphate of ammonia for export to British Colonies than is charged for this fertiliser when supplied to farmers in this country.

My Committee appreciate that there may have been some good reason for this differentiation during the war, when the intensive submarine campaign made it essential to encourage the production of cereals in this country, but they consider that the practice then followed should not be continued.

They wish me to request, in the circumstances, that your Federation will see its way to place British Colonies on the same footing in respect of prices of sulphate of ammonia as this country, and I am to point out that otherwise the result will be to induce the British West Indies to seek other sources of supply of this fertiliser, which would clearly be detrimental to British trade, which my Committee are very anxious to encourage.

Awaiting a reply, I am, etc.,

ALGERNON ASPINALL, *Secretary*,

11th December, 1922.

Dear Sir,—In reply to your letter of December 8th, we sell sulphate of ammonia to British farmers at a specially low price in view of their high cost of production and the low prices they are getting for their produce.

In order to enable me to bring the matter before my Committee, perhaps you will be good enough to let me have figures showing what the cost of production of the principal crops is in the West Indies, and what prices you are obtaining for your products.

My Committee will also, doubtless, wish to know whether your Committee would be willing to guarantee that all the buyers in the British Colonies would place all their orders with this federation at the prices which are paid by British farmers.

Yours faithfully,

BRITISH SULPHATE OF AMMONIA FEDERATION, LTD.
T. W. SPEYER, *General Manager*.

Reference to this correspondence is made in a leading article in the present issue.

Secretary of State, unless he has been instructed by the Secretary of State to pass such legislation, or in the case of urgency. It should also be clearly understood that the arrangement which I have approved applies only to Government Bills and financial resolutions, and that it does not apply to Ordinances varying existing taxes or imposing new taxes."

WEST INDIAN MAIL NOTES.

The Editor will welcome letters and newspaper cuttings giving items of news likely to prove of general interest to readers of the CIRCULAR for publication under this heading.

The Finances of British Guiana.

In concluding his speech at the opening of the Annual Session of the Combined Court on November 9th, the Governor declared his regret that his successor should have to take over the Government in

British Honduras Timber for Nassau.

The Government of the Bahamas have notified the British Honduras Government that they are desirous of obtaining from the mainland colony timber, other than mahogany or cedar, for harbour improvement works.—The *Belize Independent* understands that a Mr. Vandekercover is negotiating with the Government for the purchase of Riversdale Estate.

A Useful Suggestion from Grenada.

The *West Indian* of November 3rd makes, in connection with the British Empire Exhibition, 1924, the



The War Memorial at Plymouth, Montserrat.

This graceful clock tower was unveiled on November 11th by Major H. W. Peebles, D.S.O., the Commissioner, who secured the funds for its erection entirely by voluntary subscriptions.

unfavourable circumstances, but he was satisfied that the financial position was very much better than six months ago, that they had got over the worst, and that there was every prospect of the colony enjoying a fair amount of prosperity during the next Administration. Dealing with the visit of the deputation from India during the year, His Excellency said that the delegates had been evidently impressed with the equality of treatment received by Indians in the colony, but appeared to have regarded it as strange that many positions should not be confined to persons of comparatively high caste, as in India. Consideration of the draft regulations which the Indian Government proposed to issue with regard to future emigration led him to believe that at some time it was not impossible that immigration from India would be resumed.—The death took place on October 31st of Mr. J. S. Johnson, a popular and respected barrister, who also made his mark in the colony as a journalist.

interesting suggestions that The West India Committee should seek to have arrangements made for special excursion facilities to the home country for the exhibition, and that the Associated West Indian Chambers of Commerce should hold a conference in London during that time.—The first sitting of the Windward Islands Medical Committee was opened by the Governor on the 10th November. Addressing the meeting, His Excellency said that with the approval of the Secretary of State for the Colonies, he had appointed a Committee to enquire into and report on the salaries, emoluments, and all other matters incidental to the conditions of service, duties and privileges of the Medical Officers in the Windward Islands, and as to the advisability and the practicability of amalgamating the medical services of the Windward Islands with that of Trinidad, and to make recommendations in regard thereto. The following resolution was unanimously adopted:—"That this Committee is of

opinion that there should be a uniform minimum salary, representing a living wage, for Medical Officers in the Windward Islands, based solely on the value of such services as they shall be required to render to the public, without regard to any other consideration." A further resolution was adopted by a majority: "That the travelling allowance of Medical Officers should represent the average actual cost of travelling on official duties."

Foot-and-Mouth Disease in Jamaica.

By an amendment to the Rum Duty Law to be introduced into the Legislative Council, rum in a bonded warehouse may be used in the making of bay rum for sale on the local market, an Excise duty of 9d. per gallon being imposed.—Mr. Connacher, the veterinary expert sent out by the home Government, made an important statement on the foot-and-mouth disease outbreak at a meeting held under the auspices of the Agricultural Society and the Jamaica Imperial Association on November 21st. Mr. Martin presided, and Mr. Connacher, in the course of his address, said that he could not tell where the disease came from, that being a matter for investigation later. The disease would not be got rid of rapidly. He did not propose that the cattle in the island should be slaughtered. Between 30,000 and 35,000 head of cattle were affected, and these were among the best in the country; but the least he could think of was to slaughter all the pigs in the infected area. At the present time the disease covered a fairly large area of the western districts, including St. James, Hanover, Westmoreland, and St. Elizabeth.—On November 23rd the majority of engine drivers, says the *Gleaner*, sent a round robin addressed to the Director of the Railway, giving two weeks' notice to terminate their services in view of the fact, as they claimed, that their hours had been altered to their disadvantage.—Hon. William Morrison presided over a meeting of the Jamaica Cricket Council on November 23rd, when it was decided not to accept an invitation from Barbados to send a cricket team there in 1923. A proposal to extend an invitation to Philadelphia, however, to send a cricket team to Jamaica in February, 1923, was approved.

Montserrat's War Memorial.

The first War Memorial to be erected in the Leeward Islands is the Clock Tower in Montserrat, depicted on page 585. It was unveiled by the Commissioner, Major H. Peebles, D.S.O., on November 17th, in the presence of a representative gathering, the clergy of all denominations taking part. The Memorial was erected by private subscription, no assistance from the Government being required. Other signs of self-help and progress are not wanting.—Amongst recent developments has been the formation of the Fruit and Vegetable Growers' Co-operative Association. The idea is to assist and stimulate the production and development by the peasantry of minor fruit and vegetables, such as onions, pineapples, etc. In this connection the inclusion in the community of Mr. A. K. Agar (Magistrate), a former planter from Dominica, who fills the position of Secretary and Treasurer of the Association, is proving of great value. To liven things up a life and drum band is being raised from members of the Boys' Brigade.—The Quebec Line has now made the Presidency a port of call, and this also will assist the island considerably. A Self-Help was to be opened on the 7th of December.

St. Kitts Prepares for Tercentenary.

On the evening of the 10th November, says the *Union Messenger*, a number of influential men, at the invitation of Dr. Edmund R. Branch, assembled at his residence, Church Street, to discuss the proposed observance and celebration in January, 1923, of the Tercentenary of the landing of Captain (later Sir) Thomas Warner in this island. Among those present were His Honour Mr. Justice Wigley, The Honourable B. Marshall, Messrs. D. H. Semper, George King, A. W. Gordon, K. Stanley Veira, J. R. Yearwood, D. F. Matheson, R. Todd, C. G. Thibou, C. N. Henville, J. D. Cardin, A. Stephen, and J. A. Connell. It was proposed that the Government be approached to finance the programme for the observance and celebration, and to grant three days' holiday (Sunday, 28th January, excepted)—one week-day for each hundred years. A Central Committee composed of Dr. Edmund Branch (Chairman), His Honour Mr. Justice Wigley, Messrs. D. P. Matheson, K. Stanley Veira, George H. King, J. D. Cardin, and C. G. Thibou, with power to appoint sub-committees, was elected. Many suggestions were made to the Committee, including the erection of a suitable memorial at Old Road Bay, a dinner to the poor, a treat for the school children, and the laying of a wreath on the grave of Sir Thomas Warner at the churchyard, St. Thomas, Middle Island. The suggestion was also made that His Excellency be requested to invite warships of the French, Dutch, and the U.S. Navies, along with those of our own.—Hon. Burchell Marshall has been appointed Chairman of the Quarantine Board in the room of the late Mr. E. S. Delisle.

St. Lucia's Free Library.

Mr. Carnegie's offer, on certain conditions, of a free library was considered by the Town Board of Castries on November 2nd. Hon. George Williams, who argued that the question was really one for the island, not for the town, moved that the plot of land required should be handed over to the Government, provided that the Board's annual grant of £25 for upkeep of the present library were stopped.

St. Vincent's Electoral Districts.

Hon. W. C. Hutchinson, Colonial Treasurer, was appointed Deputy Colonial Secretary during the temporary absence of Hon. R. Popham Lobb from full duty owing to illness.—Hon. I. L. Pinnett has been re-appointed an Unofficial Member of the Legislative Council.—The Administrator has appointed the following Committee (under himself as Chairman) to make recommendations as to the boundaries of the three electoral districts into which the colony of St. Vincent should be divided in accordance with the advice tendered to the Governor and Commander-in-Chief by the Committee on the proposed amendment of the Constitution: Hon. I. C. Levy, Hon. I. L. Pinnett, Hon. J. E. Sprott, Hon. A. M. Fraser, Mr. C. E. F. Richards, and Mr. J. H. Otway (Secretary).—Mr. C. H. Rickman arrived in St. Vincent on the 9th November in order to examine the working of the St. Vincent Income Tax system, and to make suggestions for its improvement.

Trinidad's New Taxes.

The Governor, who is indefatigable in making himself acquainted with conditions throughout the colony, motored to San Fernando on November 18th to attend

the formal opening of the new Naparima Club in Paradise Savannah.—A new full-dress uniform is now being issued to officers and men of the Trinidad Light Horse. Resembling the uniform of the Lancers Regiment, the new pattern has a Trinity green plastron with a surcingle of green and yellow aguilettes.—Various schemes for augmenting the colony's revenue were considered at a meeting of the Legislative Council on November 17th. By amending the stamp duties it was hoped to raise an additional £10,000 annually, while the substitution of 5d. for 4d. as the Excise duty on petroleum was estimated to realise a further £5,000. Strong unofficial opposition, says the *Trinidad Guardian*, was made to the proposed imposition of produce taxes. Hon. Albert Cipriani urged that no taxation should be imposed on cacao in particular. He said that cacao at \$10.50 per fanega could not be produced at a profit. At present the cacao industry was living entirely on credit. The agriculturist was taxed 400 or 500 per cent. more than anyone else. The sugar crop this year would be one of the smallest for a number of years, simply because the farmers had not gone back to the land on account of the small prices they had received for canes last year. He concluded by saying that in his opinion the right thing for the Government was to raise revenue by increasing the income tax or reviewing the Customs duties. The Bill was left over for further consideration, the Governor remarking that it was difficult to know what other source would yield the required revenue.—The contract for installing the complete electric lighting plant for San Fernando has gone to an American company, which sent a representative to Trinidad. Tenders were submitted by English firms, and the order might have been secured by one of them, Mr. Hall, of the Trade Commissioner's Office thinks, had there been a representative on the spot.—The first meeting of the Franchise Commission appointed by the Governor in connection with the proposals for constitutional reform was held on November 8th, Hon. W. C. Huggard, K.C., presiding. The Chairman said that, taking the number of elected members as seven (including one for Tobago), that would allow a population of about 60,000 to a constituency (approximating to the population of Port of Spain), excepting in the case of Tobago, which has 26,000 inhabitants.—Mr. Gaston Johnson, K.C., was elected Mayor of Port of Spain by the City Council on November 9th, Hon. Dr. A. H. McShine, who lately filled the mayoral chair, becoming Deputy-Mayor.—The condition of the Government Railways has been thoroughly investigated by Mr. J. W. Spiller, Consulting Engineer for the Crown Agents, and Mr. J. Power, the General Manager. Their reports agree in regarding the service as still in an unsatisfactory state. Some of the engines have been in service for over forty years. On the other hand, Mr. Spiller remarks that comparisons with other colonial railways are almost entirely in favour of the Trinidad service.

The Annual Armistice Dinner at the Union Club took place, as before, on Saturday at 8 o'clock. Covers were laid for 65, and an additional table for four was put in at the last moment. There was only one absentee. His Excellency the Governor presided, and the only guests were Messrs. George F. Huggins, O.B.E., and Mr. J. E. Scheult, Secretary of the Club. The remainder was entirely composed of ex-service men, it being a *sine qua non* that each diner must have been actively engaged in one or other of the various theatres of operations during the Great War. At the Governor's table were Mr. George F. Huggins (on the right), Lieut.-Colonels Hooley, Hickling,

Lamotte, Wilson and Bowen, Commander Cooper, Majors Bertie and Walter Hartagin, T. P. Mackenzie, and H. Clark. The Constabulary Band was in attendance under Lieut. Wallace. After the regular toasts to The King, Our Gallant Dead, and Our Absent Comrades had been proposed by His Excellency, Colonel Wilson, and Colonel Bowen, and had been honoured—the first as usual, the second in silence, and the third to the accompaniment of "For they are jolly good fellows"—the Governor proposed the health of the principal guest, Mr. George F. Huggins, and referred to his memorable services both in connection with the Merchants' and Planters' Contingent Committee and other works of utility during the war. Mr. Huggins replied, and the band then played the "Marseillaise," which was cordially responded to. Mr. André Agostini, being then called upon to speak, did so very appropriately, the proceedings terminating with His Excellency's proposing Colonel Bowen's health as organiser of the dinner.

THE INCREASED CABLE RATES.

A Resolution in favour of the adoption of a supplementary agreement with West India and Panama Telegraph Co., authorising an increase of rates by 6d. a word on through rates, and by one-third of the present charges on the inter-island rates, up to March 31st next, was agreed to in the House of Commons on December 8th. There was no division, but Mr. Lansbury, Mr. Neil Maclean, Mr. Shinwell, and other members of the Labour Party protested against the motion.

Mr. Wheatley expressed the view that until they had placed before them a list of the shareholders of the company and the operations of the company within recent years, the matter should be deferred.

Major-General Sir Newton Moore said he was opposed to the motion, because it meant the imposition of increased cabling charges, which would not be viewed with favour by the commercial community.

Mr. Neville Chamberlain, replying, said that the proposal was the best that could be thought of to enable the telegraphic service with the West Indies to be maintained until they could make some more permanent and better arrangement. A considerable time would have to elapse before any other arrangement could be substituted. There was no clause in the Agreement that would permit the Government to take over the management of the company, although Government ownership of the cable was one of the possible alternatives they were contemplating. The Agreement of 1914 was made just before the war, and the reason why it had not turned out as it was expected was because of war conditions. Even if the company got the increased rate, the rates would today be very much less than before the original Agreement.

S.s. *Orca*, the latest addition to the fleet of the Royal Mail Steam Packet Co., left the yard of her builders, Harland & Wolff, of Belfast, on December 16th, preparatory to crossing the Atlantic for her 12th West Indian cruises from New York. A sister-ship of the *Orduna* and the *Orbita*, R.M.S. *Orca* is nearly 16,000 tons gross register, and has accommodation for 302 first-class, 336 second-class, and 802 third-class passengers.

PERSONAL NOTES.

Mr. H. A. BASCOM, assistant treasurer of Turks and Caicos Islands, has been appointed Treasurer of Dominica.

* * *

Mr. ALFRED N. JONES has taken up Life Membership of The West India Committee, thus bringing the number of Life Members to 125.

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Mr. J. H. DODD, chief engineer of the Jamaica Government Railway, has been appointed chief engineer of the Gold Coast Railway Department.

* * *

Mr. E. A. WALTERS is to succeed Mr. Archibald J. Brooks as agricultural superintendent of St. Lucia. Mr. Walters' previous appointment was that of field assistant in the Chemical Research Department of Kenya.

* * *

Mr. WILSON GOODE, H.M. Trade Commissioner for the West Indies, left Liverpool in s.s. *Miami*, on December 19th, for Jamaica, where he will remain for about two months, before proceeding to his headquarters at Port of Spain, Trinidad.

* * *

Mr. JOSEPH MERVYN ST. JOHN YATES, the Registrar-General of the Bahamas since 1920, has been appointed a stipendiary magistrate in Jamaica. Mr. Yates, who graduated at Trinity College, Oxford, was called to the Bar at the Inner Temple in 1903.

* * *

THE Battle of the Saints is recalled by the return to England of LORD RODNEY, the descendant of the famous admiral who defeated De Grasse. Lord Rodney, who is a farmer in Canada, is one of the two surviving recipients of a hereditary pension, the other being Lord Nelson.

* * *

MAJOR AND MRS. RANDOLPH RUST have returned to London from a tour on the Continent, during which they visited Belgium, France, Switzerland, Italy and Sicily. At Naples they witnessed the march of 40,000 Fascisti. They return to Trinidad in the *Van Rensselaer*, on December 30th.

* * *

Mr. ALFRED KARNY YOUNG, K.C., Chief Justice of the Leeward Islands, has been promoted to be Chief Justice of Fiji, and Chief Judicial Commissioner for the Western Pacific. Mr. Young, who began his Civil Service career in the Colonial Secretary's office in British Honduras, in 1890, served as a stipendiary magistrate in Trinidad for a year in 1908.

* * *

THE HON. GIBSON MURRAY, formerly Administrator of St. Vincent and St. Lucia, leaves in the *Crynsen*, on January 13th, for Trinidad, where he will spend three weeks. As a Governor of the West Indian Agricultural College, he will, no doubt, take the opportunity of inspecting the

college buildings and of attending a meeting of the Executive Committee.

* * *

Mr. ALEXANDER DUCKHAM, F.C.S., M.I.P.T., who is a member of the Executive of The West India Committee, left New York for Trinidad on the 5th of this month, in order to visit the properties of the Trinidad Central Oilfields, Ltd., of which he is chairman. Mr. Duckham is also chairman of the Standardisation Committee of the Institution of Petroleum Technologists.



Mr. Reginald Hargrove.

Who left England on December 9th for Tortola, to take up the post of Commissioner of the Virgin Islands.

DR. ANDREW ELLIS WYNTER has presented a copy of The West India Committee Map of the West Indies to the Bristol Branch of the Royal Colonial Institute. His example will, it is hoped, be followed by others of our readers, who could help to make the West Indies much better known by similarly presenting copies of the Map to patriotic institutions in this country.

* * *

Mr. WALTER CLARENCE HUGGARD, B.A., LL.D., who from the Solicitor-Generalship of Trinidad has been appointed to succeed Mr. R. S. Aucher Warner, K.C., as Attorney-General, was educated at Dublin University, where he was first honour-man and senior moderator in legal and political science. Called to the Bar at Dublin in 1907, Mr. Huggard saw judicial service in Nigeria before coming to Trinidad in 1920.

JOTTINGS FROM MY NOTEBOOK.

BY "AGRONOMIST."

The Brazilian coffee industry is conducted in three districts, the State of Sao Paulo, which supplies 90 per cent.; the southern part of the State of Minas Geraes, which supplies 9 per cent.; and the northern part of Parana, which furnishes 1 per cent.

* * *

One of the most important industries of the Orinoco River Valley is the collection of tonka beans, a full crop, which occurs once every three or four years, being about 1,000,000 lbs. The essential principle of the tonka bean is coumarin, and a considerable use of the bean is in flavouring tobacco.

* * *

Out of the 480,672 dollars worth of pineapples imported into Canada during the five months April-August, 487,691 dollars worth came from the United States. In the same way 2,627,923 dollars worth of oranges were supplied from the United States, against a total import of 2,743,767 dollars worth. In the same period, out of 1,597,586 bunches of bananas, Canada imported no less than 1,597,116 bunches from the United States. Why should not Canada obtain these fruits from the British West Indies?

* * *

Professor Bergonie, a French scientist, as the result of experiments carried out at Bordeaux University, appears to have established the fact that a current of high frequency electricity of two or three ampères in strength, and a voltage of 1,000 to 2,500 volts, applied daily, is a material aid to digestion, taking the place, in the way of heat production, of one-third of the food required by a person in average health. By its use, coupled with that of a lessened quantity of food, cases of malnutrition can, it is stated, be advantageously treated.

* * *

A view which is prominently held among biologists is that the alkaloids found in plants are simply refuse bodies which the plants cannot eliminate, but which may serve as protection from the injurious effect of other substances present in them. The question has been dealt with by Messrs. Ciamician and Ravenna in the *Comptes Rendus* of the Academy of Sciences of Paris (1920, No. 18), who come to the conclusion that both alkaloids and alcoholic radicals tend to increase, rather than to diminish, the injurious action of certain substances present in plants.

* * *

Messrs. Blackwell and Buée have published in the *Bulletin* of the South Carolina Experiment Station (No. 209, 1921) the results of fertiliser experiments conducted on cotton crops, commenced in 1914. In the absence of the boll-weevil, it was found that acid phosphate, ground rock phosphate, and Thomas phosphate gave equally good returns; but that the acid phosphate gave an earlier crop than the other kinds. Larger proportions than

8 per cent. of acid phosphate in an application of 1,000 lbs. of complete fertiliser per acre were not profitable. Two per cent. of potash for cotton in rotation, and four per cent. for a continuous crop were found to give the best results.

* * *

The potato production of Germany in the 25 years which preceded the war rose from 27,700,000 to 44,000,000 tons, the increase being partly due to a 15 per cent. larger acreage, and partly to a bigger yield, which rose during the period from 23.4 to 33.8 tons per acre. Just before the war, according to the United States representative of the American Department of Commerce, 1,170,000 tons were used annually by the manual labour classes, 6,000,000 tons by the agricultural population, 3,760,000 tons by factory hands, and 1,480,000 tons by the upper and middle classes, 17,000,000 tons for animal food, 2,500,000 tons for the production of alcohol, and 1,400,000 tons in the manufacture of starch. The production is now about 26,000,000 tons, of which 18,000,000 tons are used for human food.

* * *

The use of alcohol as a motor fuel is likely to be considerable in field tractors in sugar-producing countries. On this subject, the *Philippine Sugar News* says that the fundamental difference between an alcohol and a gasoline engine is in the volume of the compression chamber. The latter has a larger chamber, and the explosive mixture of gasoline and air is subjected to a relatively low compression before ignition. The pressure amounts to from 5 to 6 kilogrammes per square centimetre. In the alcohol engine, on the other hand, the compression chamber is smaller, and the explosive mixture of alcohol and air, before ignition takes place, is subjected to a compression of 11 to 14 kilogrammes per square centimetre. Although the heat value of gasoline is greater than that of alcohol, it is compensated for, in the case of alcohol, by the greater thermal efficiency resulting from the higher compression.

* * *

The subject of the explosions, in several cases severe, which have occurred in German sugar refineries, resulting from sugar "dust," is dealt with by Mr. P. Beyersdorfer, in *Vereinzeitschrift*, an abstract of the article being published in the November number of the *International Sugar Journal*. The explosions appear to occur immediately after starting work, and Mr. Beyersdorfer gives as the explanation that it is then that the most violent whirling of the dust takes place, while the particles are at that time closest to one another. The dust becomes electrified, and when the extreme of potential is reached a discharge accompanied by sparking takes place. Before this point is reached, a discharge accompanied by glowing has taken place between the metal of the machine and the sugar dust cloud, with the formation of ozone and nitrogen pentoxide. Then comes the spark and the explosion. There is a distinct analogy between thunderstorms and these dust explosions.

WEST INDIES AT WESTMINSTER.

East Indians in Kenya.

Mr. Ormsby-Gore (Under-Secretary of State for the Colonies) informed Colonel Wedgwood on the 5th December that as a result of consultations with the India Office, communications were being sent to the Government of Kenya regarding the problem of the Indians in that colony. Until a reply had been received, he could not make any further statement on the progress of negotiations.

Official Visits to Colonies.

Asked whether he would consider the advisability of a system whereby civil servants in his department might be interchanged for a period of years with those in the Dominions and Crown Colonies, Mr. Ormsby-Gore stated on December 13th that as regards the Colonies, the question was being considered in connection with the Report of the President of the Board of Education (Mr. Wood) on his visit to the West Indies.

Empire Oil Production.

Sir Philip Lloyd-Greame (President of the Board of Trade) informed Mr. Hancock, on December 4th, that exact information with regard to the production in Great Britain in 1921 was not available, but it was computed that the total production of crude petroleum was approximately 140,000 tons. The quantity produced in Trinidad was 334,000 tons, in Egypt 190,000 tons, and in Mexico 28,000,000 tons. He regretted that he was unable to state the cost of production.

British Empire Exhibition.

Sir W. Joynson-Hicks, replying to Mr. Gould on the 5th December, stated that he had been invited by the President of the Board of Trade, with the full concurrence of the Executive Council of the British Empire Exhibition, to investigate the questions which had arisen with regard to the use of materials and supplies of Empire origin, the concession for amusements and other matters, in order that the Government and Parliament might be placed in full possession of the true facts of the case.

England's Beet Sugar Production.

The President of the Board of Trade (Sir P. Lloyd-Greame) informed Major Hay, on December 11th, that during the year 1921 the imports of unrefined beetroot sugar into the United Kingdom from all sources amounted to 13,685 tons. In the case of refined sugar the trade returns of the United Kingdom did not distinguish between sugar manufactured from beetroot and that manufactured from sugar cane or other materials. The quantity of beet sugar produced in the United Kingdom during the year 1921 was 6,363 tons.

Representative Government in West Indies.

Mr. Ormsby-Gore informed Mr. Percy Hurd on the 5th December that the observations of the Colonial Governments of Jamaica, Trinidad, and the Windward Islands had been asked for in regard to the constitutional reforms proposed in the Report of the President of the Board of Education (Mr. Edward Wood). No reply had as yet been received from the Government of Jamaica, but, in the case of Trinidad and the Windward Islands, replies had been received, which were now under consideration, or formed the subject of

further discussion with the Governors, and in regard to the three Windward Islands were nearing completion.

A St. Lucia Report at Last!

In reply to Lieut.-Colonel the Hon. Cuthbert James on December 12th, Mr. Ormsby-Gore stated that an Annual Report on St. Lucia had been received for 1921, and was about to be published. The Acting Administrator had stated in forwarding this Report that he regretted that he had been unable to complete it at an earlier date because the statistical figures for 1921 had only recently become available. Steps had been taken with a view to securing that future Reports were furnished as soon as possible, but for reasons of economy he did not propose to call for Reports for the period during and shortly after the war in respect of which none had been prepared.

Trinidad Income-Tax and Agencies.

Mr. Hannon asked, on December 13th, if His Majesty's Government would make representations to the Legislature of Trinidad, drawing its attention to the inequitable effect on British industrial interests of its recent Ordinance rendering firms and companies non-resident in the island, but doing business there through resident agents, liable to income Tax on the profits earned in the island. Mr. Ormsby-Gore replied that an Inter-departmental Committee had been appointed at the beginning of this year to investigate all problems in connection with the Income Tax Laws of the Colonies and Protectorates, including the provisions of the Ordinance referred to. Their report had been received and would shortly be laid before the House. The Report contained certain recommendations on the subject of the taxation of agents; and the Government of Trinidad would be asked to take these recommendations into consideration.

Oil Production within the Empire.

Mr. Ormsby-Gore supplied, on December 13th, the following figures to Lieut.-Colonel James, who asked in what parts of the British Empire, including mandated and other territories, which, in the case of dutiable commodities, enjoyed Imperial preference, petroleum was produced; what had been the output of petroleum in these territories during 1921 and the first six months of 1922; and what proportion of this production was imported into this country:—

	Pro- duction 1921. Tons.	Imports into U.K. 1921. Tons.	Per- cent- age.	Pro- duction 1st six months, 1922.Tons.	Imports into U.K. 1st six months, 1922. Tons.	Per- cent- age.
Canada ...	25,000	Nil	—	12,000	Nil	—
Australia ...	8,000	Nil	—	4,000	Nil	—
Trinidad ...	334,000	108,265	30.89	161,000	60,078	37.31
British India ...	1,285,000	11,170	.87	575,000	7,318	1.27
Sarawak ...	199,000	13,955	7.81	178,000	Nil	—

Improved Steamship Communications.

Mr. Ormsby-Gore informed Sir Harry Brittain on December 12th that steamer communications between this country and the West Indies had considerably improved lately. There was now a service alternately by Messrs. Elders & Fyies and the Harrison Line to Barbados, Trinidad, British Guiana, and Jamaica, with sailings every two or three weeks. The Pacific Steam Navigation Company had arranged that their steamers leaving Liverpool on the 25th January and 22nd February should call at Jamaica, and that steamers should call there homeward bound about the 10th and

27th March. These were large and comfortable vessels, and the arrangement afforded every facility to people wishing to pay a short visit to the island. The Royal Mail Steam Packet Company, the Canadian Pacific Railway Company, and the White Star Line were all despatching tourist steamers from New York to the West Indies. This was in addition to the ordinary facilities afforded by Messrs. Furness Withy and the Canadian mail steamers. He was afraid that the present time was not opportune for taking steps to secure a service run strictly to a time-table, which would no doubt involve a subsidy.

Government Contracts & Empire Materials

Mr. Hannon asked the President of the Board of Trade, on December 4th, whether he would consider the desirability of a percentage preference being given to all persons who tendered for Government contracts, and who undertook to use British Empire materials and employ British Empire labour; whether his Department would use its influence with public bodies to make similar concessions subject to the same conditions; and whether he was aware that the London County Council already gave a 10 per cent. preference on contracts where British material and British labour were employed. Sir P. Lloyd-Greame stated in reply that the Board of Trade was not a contracting Department. But he had no doubt that the contracting Departments and public bodies recognised the desirability and importance of giving preference wherever practicable to contractors who undertook to employ British labour and British materials. With regard to the last part of the question, he was not aware that the London County Council had made any general rule of the kind mentioned.

THE WEST INDIAN MAP.

Seventy copies of The West India Committee's coloured wall map have been ordered for the use of the schools in British Honduras.

So many Government departments and institutions both in the United Kingdom and the West Indies have purchased copies of the map, that it has come to be regarded as an "official" publication.

Although, technically speaking, the map is not official, it is nevertheless just as authentic as any map could be. Every minute detail has received most careful attention, and in the words of Mr. Winston Churchill, "... the diagrams indicating the areas and populations of the West Indian colonies and islands, and other special features... have evidently been carefully thought out."

Therefore, those persons in the West Indies and British Guiana who are responsible for purchasing school and college supplies (and who have not as yet sent in their order) may be thoroughly assured that the Committee's Map is in every way suitable for educational instruction. The prices are as follows:—

	Price	Post Free U.K.	Post Free W. Indies.	Post Free Elsewhere.
Sheet	7/6	8/6	9/6	10/6
Mounted and folded ...	15/-	15/6	15/8	15/8
Mounted on rollers ...	12/6	14/-	19/-	*

* Canada 22/-; U.S.A. 25/-.

Full particulars and a reduced facsimile of the Map will be gladly forwarded on request.

CORRESPONDENCE.

The views expressed by correspondents under this heading are not necessarily those of THE WEST INDIA COMMITTEE CIRCULAR.

Empire Trade Development.

Dear Sir,—In the *Nineteenth Century Review* the Right Hon. Viscount Long writes an exhaustive article on the Empire's resources, entitled "Why we should concentrate on the Empire." Lord Long presided over the meetings of the Imperial Conference, 1917-1918, and gives an immense array of figures making clear the fact that the supplies of the Empire in raw material are unlimited, and urges a definite policy to be formulated.

In a review of the article in the *Daily Mail*, the writer says that "At this present time, when foreign exchanges are so collapsed, and when trade is so stagnant, it is more than ever important that we should seek to foster trade with our Dominions and Crown Colonies. Lord Long's article is a timely and valuable one."

Lord Long, in his opening paragraphs in his article in the *Nineteenth Century*, says: "The Governments of the day, including the Imperial Government at home, declared it was desirable that a preference should be given to commodities produced within the Empire, and that in case of duties now existing there should be an actual preference."

In THE WEST INDIA COMMITTEE CIRCULAR of October 12th there is an article on the Sicilian "Camera Agrumaria," in which it is stated that there is held by them about twenty thousand tons of citrate of lime, representing several normal years' supply. The normal output of citric acid is about, I believe, 6,000 to 7,000 tons, of which Dominica contributes the raw material to make about a little more than 1,000 tons, or, say, a sixth of the average world's supply annually, and consequently we are entirely at the mercy of the Camera, inasmuch as they control the market, and with the favourable exchange of the Lira, which is no doubt profitable to them, whereas to Dominica it means less than the cost of production, with the consequent closing of estates and a possible ruin of the industry.

With these large stocks held by Sicily, it does not seem possible, taking into consideration the world-wide depression of trade, to look for better prices for some years, and under these conditions it seems reasonable to ask the Mother Country to impose a duty on foreign citrus products.

Further, it must be remembered that Dominica gives a preference on all British goods.

In your issue of September 14th there is a letter from the Secretary of State for the Colonies in reply to The West India Committee's representations on citric acid, informing the Committee that citric acid has been deleted from the list of dutiable articles under the Safeguarding of Industries Act, and that the Board of Trade have no power to include it. Under this Act I believe the duty on foreign raw material was 33½ per cent., but surely there is no reason why we should not be granted protection under a special Act of Parliament. Possibly citric acid is not of such great importance as to be considered a "Key Industry," but it is of the most vital importance to Dominica as it is of her main industry, and a duty of less than 33½ per cent. on foreign citric acid would meet all requirements.

Assuming there was a 15 per cent. duty on citric acid and the raw material—viz., concentrated lime-juice and citrate of lime—the 15 per cent. being based

on the citric acid content of the raw material, it would work out at £35 per ton, taking citric acid at 2/- per lb. It might be better to make a fixed duty instead of *ad valorem*, and in that case call it 28/- per cwt. (3d. per lb.). This increase would hardly affect the price of soft drinks, as the increase per bottle would be infinitesimal. To the planter it would mean about 55/- on a cask of concentrated lime-juice, giving him a small profit against his present loss.

Mr. Wood, in his report of his visit to Dominica, states that "unless some steps are taken to improve the trade, the colony and its inhabitants seem doomed to very serious financial depression and even economic collapse." The situation since Mr. Wood's visit has grown steadily worse, and at the close of the present crop many estates are closing down with little prospect of re-opening.

Some fifty years ago sugar was Dominica's main product, and the industry was completely ruined through foreign competition. Now, after passing through many years of struggle to establish the lime industry, it looks as though history will repeat itself.

It is hoped that Lord Long's article will revive the Imperial Conference resolutions for an inter-Empire trade, and in considering this important subject it is hoped that Dominica's interest will not be overlooked, and that some protection be given her, otherwise it looks as though it may be wiped out, and the Mother Country be dependent on foreign citric acid.

With a moderate protection tariff, Lord Long's appeal for an inter-Empire trade as affecting one of the small Crown Colonies would be met.

I am, Sir, etc.,

H. H. VIVIAN WHITCHURCH.

Roseau, Dominica.

Columbus's Telescope.

SIR,—In criticising the critics of those responsible for placing Columbus with a spy glass on a postage stamp, Mr. W. H. Porter, in his letter published in THE WEST INDIA COMMITTEE CIRCULAR of October 12th, seems to be himself open to criticism.

The stamp referred to by the *Daily Mail* is "the new 3d. stamp issued for St. Christopher and Nevis." Now there is not merely a new 3d. stamp of this sort, but there are two distinct series of stamps, one issued in 1903 (now obsolete) and one in 1920, of which certain values bear the Columbus design and others that of the Nevis Bath Springs.

This, Mr. Porter, himself a keen stamp collector, might have explained; while those who take pleasure in criticising the perpetrators of the apparent blunder are mistaken in thinking that there is any error on the part of those who are responsible for the design of the stamps.

When the stamps were issued, the question was asked whether or no it would be quite the thing to have the great discoverer in such a false position, and it was decided that as he had been there for at least a hundred years there would be no great point in removing him just now.

The fact is that the stamp design is merely a reproduction of the ancient Seal of the Island of St. Christopher, and those who perpetrated this Seal have been beyond the reach of criticism for so many generations that ridicule is wasted as far as they are concerned. The question has given matter for philatelic journals and others to write about, and provided stamp collectors with something interesting and instructive, if only from a negative point of view.

It is quite possible that in time the stamp design will be changed, and philatelists will all the more

prize this anachronistic one when it has become postally obsolete. So much for the present.

In the near future, that is next year, the same Presidency will be issuing a new series of stamps in connection with its celebration of the British West Indian Tercentenary. A handsome design which is intended to be historic as well as geographically descriptive will show the landing place of the first settlers in the British West Indies with a 17th century ship in the foreground, and at the back, a view of the mountain from which the island first settled obtained its name, St. Christopher.

Many stamp collectors are looking forward to the issue of this stamp in January next, one of the attractions of which will be the fact of its not being purely a speculative issue.

G. H. KING.

Rasseterre.

STEAMER SAILINGS.

The following dates of steamer sailings must be regarded as approximate only, and intending passengers should make enquiries from the respective shipping companies regarding actual times of sailings.

To	From	Packet	Sailing
B. Honduras	... Liverpool	... <i>Patrician</i>	... Dec. 23
Jamaica	... Bristol	... <i>Motagua</i>	... " 26
West Indies	... London	... <i>Intaba</i>	... " 29
B'dos & T'dad	... Liverpool	... <i>Asian</i>	... " 30
B'dos, T'dad & Demerara	... Glasgow	... <i>Songster</i>	... " 30
West Indies	... Dover	... <i>Van Rensselaer</i>	... " 30
			... 1923.
Jamaica	... Bristol	... <i>Cumito</i>	... Jan. 1
West Indies	... Plymouth	... <i>Peron</i>	... " 8
D'ara & T'dad	... Amsterdam	... <i>Prins Frederik Hendrik</i>	... Jan. 11
B. Honduras	... New Orleans	... " <i>U.F. Co. Steamer</i> "	... " 13
Bermuda	... New York	... <i>Port St. George</i>	... " 13
G'das, T'dad & Demerara	... New York	... <i>Matura</i>	... " 16
Jamaica	... New York	... <i>Carillo</i>	... " 17
Bermuda	... New York	... <i>Port Victoria</i>	... " 17
West Indies	... New York	... <i>Parima</i>	... " 18
B'da, B'mas, J'aca & Br. H'das	... Halifax, N.S.	... <i>Canadian Fisher</i>	... " 18
West Indies	... Halifax, N.S.	... <i>Chaudiere</i>	... " 19
Bermuda	... New York	... <i>Fort St. George</i>	... " 20
Jamaica	... New York	... <i>Tivives</i>	... " 24
Bermuda	... New York	... <i>Fort Victoria</i>	... " 24
West Indies	... New York	... <i>Guiana</i>	... " 26
J'aca & B. H'das	... New York	... <i>Zacapa</i>	... " 27
Bermuda	... New York	... <i>Port St. George</i>	... " 27
Jamaica	... New York	... <i>Metapan</i>	... " 31
Bermuda	... New York	... <i>Port Victoria</i>	... " 31
West Indies	... New York	... <i>Guiana</i>	... Feb. 1
West Indies	... Halifax, N.S.	... <i>Chaleur</i>	... " 9
Bermuda	... New York	... <i>Fort St. George</i>	... " 3
Bermuda	... New York	... <i>Fort Victoria</i>	... " 7
Jamaica	... New York	... <i>Sixola</i>	... " 7
B'da, B'mas, J'aca & B. H'das	... Halifax, N.S.	... <i>Canadian Forester</i>	... " 8
B. Honduras	... New Orleans	... " <i>U.F. Co. Steamer</i> "	... " 10
Bermuda	... New York	... <i>Fort St. George</i>	... " 10

SPECIAL CRUISES TO WEST INDIES.

	From	Packet	Sailing
West Indies	... New York	... <i>Megantic</i>	... Jan. 15
West Indies	... New York	... <i>Empress of Britain</i>	... " 20
West Indies	... New York	... <i>Orca</i>	... " 24
West Indies	... New York	... <i>Megantic</i>	... Feb. 17
West Indies	... New York	... <i>Empress of Britain</i>	... " 20
West Indies	... New York	... <i>Orca</i>	... " 24
West Indies	... New York	... <i>Megantic</i>	... Mar. 22

THE GOVERNORS OF JAMAICA.

By FRANK CUNDALL, F.S.A.

XIII. John White, President.

(Continued from page 570 and concluded.)

"May it pleas yor Lordships

"Since the aforegoing their Majesties Ships *Guernsey* wth. the Sloops wch. we sent out against the french that had landed on the Northside of this Island are come into port and have had good success, Having burnt the Enemy's Ship and taken and destroyed all the men both by land & sea Except eighteen wch. Escaped in a sloop, In all humility we are

"Yor. Lordships most humble & obedient Servts."

Besides this account by the Council there are seven other descriptions of the earthquake. Most of them are in the West India Reference Library in the Institute of Jamaica—(1) a facsimile of the contemporary broadside in the British Museum, which contains a letter from a certain Captain Crocket, dated June 30th, 1792 (*sic*); (2) an Account contributed by Sir Hans Sloane to the "Philosophical Transactions" of the Royal Society in 1694, from letters sent to him by various correspondents; (3) "A Sad and Terrible Relation of the dreadful Earthquake that happened at Jamaica, June 7th, 1692; also an account of the utter defeat of the French then landed there, London, 1692" (a copy of which is in the Bodleian Library); (4) An Account by the Rector, Dr. Heath (a copy of which is in the British Museum. In the Institute is a copy of the Dutch translation published at Rotterdam in 1692. It was republished in the *Gentleman's Magazine* for 1750); (5) An Account by a Minister of the Parish of Vere, published in 1698; (6) An Account by Mrs. Akers, of Nevis, in Smith's "Natural History of Nevis" (1745); (7) Another Account is in a contemporary pamphlet, dated 1694, in the British Museum, "A letter to a friend from Jamaica, Spanish Town, the 19th June, 1692," signed "John Pike."

The following names are mentioned in one or other of the accounts. All were killed except those in italics:—Capt. Agar, *Mrs. Akers*, Mr. Alcock's family, Mr. Atwell, Mr. Beekford, Mr. Beekford's two daughters, *Mrs. Elizabeth Beekford*, *Mr. Bosby*, Dr. Boyes, Mr. Browne, *Mrs. Susannah Carson*, Sir James Costleby's daughter, *Mrs. Crebet*, Mr. Croft's family, Capt. Cuninge or Cuning, *Mrs. Dorrington's child*, Mr. Dempsty, Mr. Diggings, Mr. Deane, *Mrs. Eclyne and child*, *Mrs. Fuller*, Mr. Fyrme, *Mrs. Gifford*, *Lewis Giddy*, Mr. Hayward and family, *Dr. Heath*, Mr. Hellinwood and family, Mr. Joseph Heminge, Mr. Joy's child, Mr. Ralph Knight's widow and niece, Mr. Keene, *Major Kelly*, Mr. Lambspert, Mr. John Lake and wife, Mr. Magirah, Capt. Martin, Mr. Meares, Mr. Meson and family, Attorney-General Musgrave, Mr. Nash, Mr. Norbory's wife, Mr. Nushall, *Capt. Nevill*, Mr. Pryor, Mr. Geo. Phillips, Mr. John Perk's wife and child, *Lord Puke*, *Capt. Phips*, *Mrs. Radburn and her family*, Col. Reade, Provost Marshall Reeves, Lord Secretary Reeves, Col. Reeve's Lady, *Mrs. Robinson*, Capt. Ruden, Mr. Ryvers, wife and family, Mr.

Stephens, Mr. Stocktone and family, *Mrs. Sweetings*, *Mr. Swymer*, Capt. Tokely, *Dr. Trupham*, Mr. William Turner, Capt. Waile, Capt. Warde, Mr. Watts, Capt. Watson, *John White*, Capt. Wilison and son, Mr. Jonathan Wood, Capt. Woody.

The steps taken by the Council for the suppression of robbery were, unfortunately, not very effective. The minister from Vere wrote:

"Immediately upon the cessation of the extremity of the Earthquake, your Heart would abhor to hear of the Depredations, Robberies, and Violences that were in an instant committed upon the Place, by the vilest and basest of the People: no Man could call anything his own, for they that were strongest and most wicked seized what they pleased and whose they pleased, and where they pleased without any regard to Propriety. Gold and Silver, Jewels, Plate or Goods, was all their own that they could or would lay hands on: Nothing but breaking open of Houses, rushing into Shops, and taking what they pleased before the Owners faces; forcing Goods or Money from them in the open street, as they were carrying it elsewhere for better Security, succeeded the Horrors of this dreadful time; while others in Cano's, Wherries, Ship-boats, &c., were plundering Chests, Boxes, Screwtores, &c., of what they could find in them upon the Water. Even the very Slaves thought it their time of Liberty, wherein they committed many barbarous Insolencies and Robberies, till they were suppressed by the Death of some, and punishment of others."

It was not long before the attempt to repulse the attack from Petit Guavos was successful. The minister of Vere wrote:—

"And though in the midst of our distress it pleas'd God to give us a signal Victory over our Enemies, the French, who happened at that time to make the sharpest Attack upon us since the War, having landed some say 300, some say 80 Men at the Northside, which is but weakly furnished with Men, where they intrenched themselves, but were shamefully beaten out by a vigorous On-set in the night, by a Party of about thirty Men, who slew 7 or 8 outright, and the rest flying to their boats were 30 of them drowned, while in the meantime our Fleet which was set out on purpose pursuing theirs, we took one Shalop, and made them desperately blow up their great Ship; such as were saved remaining our Prisoners, and others fled home to give an Account of their Overthrow."

On June 24th the Council ordered:—

"That there be laid out two hundred acres of Collet. William Beeston's land in the parrish of St. Andrews, where the President and the rest of the Gents: of their Majesties Council have appointed for building of a new Towne."

Thus Kingston came into being. The sum of £1,000 was ordered to be paid to Beeston for the land; Nicholas Lawes was charged with the duty of laying it out, and preference was given to former land owners at Port Royal in the taking up of land. Ships were ordered to unlade at the "new Towne," and the Naval Officer and Receiver-General removed their offices thither. July 18th was fixed as a day of Public Fast and Humiliation.

On July 12th the Council decided to meet at Mosquito Point to view and elect a place for building a fortification to secure the new channel opened to take the place of the one destroyed by the

earthquake, and on August 8th the fort was ordered to be erected. This was a foreshadow of Fort Augusta.

On July 21st regulations were drawn up for "the new town to be called Kingston," and Peter Beckford was commissioned to command there and at Fort Royal. Each lot was to pay a quit rent of ten shillings.

On August 9th the draught of the town of Kingston, laid out by John Goffe, was approved by the Council. How much of Goffe's draught was embodied in Lilly's plan, one cannot say. Provision was made for building a hospital and for holding a market every week-day. Edward Ycoman, late of Port Royal, was appointed clerk of the market, and Deodatus Stanly was appointed bellman of the town. The first householder on record is Mrs. Ann Lowder, in whose house the Council met to consider claims.

On August 8th the Council passed a payment of £10 for some lime for King's House, at Spanish Town, and for repairing "the mace" brought out by Lord Windsor, which had apparently been damaged in the earthquake.

John White had but short opportunity for carrying out the plans in which he took a leading part in forming. He probably died of the sickness which followed the earthquake. One resident wrote home:—

"We have had a very great Mortality since the great Earthquake (for we have little ones daily) almost half the people that escap'd upon Port-Royal are since dead of a Malignant Fever, from Change of Air, want of dry Houses, warm Lodging, proper Medicines, and other Conveniences."

Another wrote:—

"Our people settled a Town at Liguanea side and there is about 500 graves already, and People every day a dying still."

It was estimated that while the earthquake caused 2,000 (1,500 whites and 500 blacks) deaths, this sickness caused 8,000.

White presided at the Council for the last time on August 16th. His burial is recorded in St. Andrew six days later (August 22nd), but there is no stone to mark the spot.

SOME COMPANY NOTES.

Trinidad Leascholds, Ltd.

In their report for the year ended June 30th, 1922, the directors state that the following areas were controlled by the company at that date:—68,898 acres under Government lease; 2,859 acres of freehold land; 1,794 acres of freehold oil rights; 580 acres of freehold surface rights.

Capital expenditure amounted to £190,365, of which £95,562 represented the cost of well sinking, the balance having been spent in completing work on hand at June 30th, 1921, and on additional plant, machinery, tankage, etc. Owing to the further fall in the market price of oil-well supplies, and the improvement in the rate of exchange with America, where the company's supplies are mainly purchased, the book value of the stores on hand has been revised, and now stands at the estimated cost of replacement at June 30th last. The company's indebtedness on loan account, which appeared in the previous balance sheet at £181,609, had been reduced to £24,066 at June 30th last. This balance has since been liquidated.

Receipts from fuel oil sales fell very considerably during the year under review. Reduced prices primarily resulted from the enormous production of Mexican oil, which also adversely affected the local demand for bunkers. Light products likewise realised lower prices. Depreciation allowances show an increase of £85,871, mainly on account of wells. Production from the company's fields amounted to 181,416 tons, against 158,046 tons during the preceding year; purchases of crude oil totalled 67,755 tons. The production of the past few months has shown a steady increase. During the year 211,252 tons of crude oil were treated in the company's refineries, compared with 176,642 tons for the previous twelve months. The extensions to the company's main refinery at Pointe-à-Pierre have been carried out. The plant is not yet being operated at full capacity, as certain adjustments to the new portion are being effected. Operations are, for the present, being confined to the Forest Reserve and Barrackpore Fields, owing to the inconclusive results from the test wells on the Santa Cecilia and Piparo areas.

Ste. Madeline Sugar Company, Ltd.

The profit for the year ended June 30th, 1922, after payment of debenture interest, amounted to £9,777 9s. 6d., which has been carried to profit and loss account, reducing the deficiency to £85,268 19s. 4d. The directors, in their report, attribute the smallness of the profit mainly to short crops of estate canes. The late close of reaping of the 1921 crop seriously damaged the 1922 canes in many of the fields, and the continuance of heavy rains from July to December interfered much with estate work, and caused further injury to the crops. Also the estates are still suffering from reduced cultivation during the extreme labour difficulties of the previous years, when it was impossible to maintain the previous standard. Steps have now been taken towards restoring the estates to their former position, but it will be some time before the results of this can be shown in increased crops. The accounts show that the forecast of the directors that the disastrous economic and labour conditions were passing off has been fully confirmed. Labour has settled down to the changed conditions. All classes have quickly realised that heavy reductions in pay were necessary, and have accepted the situation. The cost of all stores has fallen, and taxation has been reduced. Thus during the year a big stride towards pre-war conditions has been taken. The factory work has been of a high order, and the recovery of sugar from the canes shows a marked advance on any previous record. The following figures give the results of the year and a comparison with previous years:—

	1916	1917	1918	1919	1920	1921	1922
Canes, Estates tons	133,871	117,511	95,442	95,870	93,498	83,151	76,334
" purchased "	82,375	116,346	79,486	70,450	82,177	102,128	95,551
	216,246	233,857	174,928	166,020	175,675	185,279	171,885
Sugar made tons	20,890	24,472	16,643	16,482	17,510	17,741	17,988
Sucrose in Cane %	11.21	12.86	11.28	11.69	12.09	11.43	11.86
" " Mexass "	3.40	3.95	3.30	3.46	3.38	3.29	3.00
Purity of Juice "	77.60	80.50	79.60	80.50	79.54	80.39	80.59
Recovery of Sucrose "	82.55	80.53	81.14	81.59	78.86	80.80	81.09
Yield of Sugar % per acre	9.66	10.55	9.51	9.93	9.97	9.63	10.40
Estate Canes, per acre tons	24.72	23.35	19.62	19.44	21.37	19.72	18.28
" Sugar "	2.38	2.46	1.86	1.93	2.13	1.90	1.97
Price of Sugar, per ton	£17.19 8	18.10 0	19.13 9	24.2 11	39.16 7	26.6 7	15.11 0

Speaking at the third annual general meeting, on November 28th, the chairman, Mr. G. Moody Stuart, said they were now on the way towards a more satisfactory position on their own estates, but he could not, unfortunately, say as much in regard to the small-holders—farmers, as they were called—from whom they purchased half their cane supply. All over Trinidad there was going to be a big shortage in these in the coming crop.

PRODUCE MARKETS SUMMARY.

Telephone—
Dinorico 2200-2207.
Telegrams—
"Cario, London."



14, TRINITY SQUARE,
LONDON, E.C.3,
Dec. 19th, 1922

BANK RATE. 3 per cent. as from July 12th.
EXCHANGE. Value of the £ Sterling.

	Dec. 5th	Dec. 19th		Dec. 5th	Dec. 19th
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
In U.S.A. —	18 8	19 1	In Spain —	1 3 2	1 3 3
.. France	2 11 3	2 9 6	.. Germany	1700 0 0	1600 0 0
.. Belgium	3 15 5	3 14 3	.. Austria	Nominal	Nominal
.. Italy	3 11 4	3 12 0	.. Holland	18 10	19 1

The value of the gold sovereign is £1 Os. 10d.

SUGAR. As was anticipated, the beginning of the new Cuban crop has been marked by a considerable drop in the value of spot sugars in the New York Market during the fortnight, landed duty-paid Cubans being quoted yesterday at 5.53c, equivalent to 3.75c, c.i.f., or about 3.59c, f.o.b. This is .26c below last Summary's quotation.

The futures market closed easy at: January 3.62c; March 3.55c; May 3.46c; and July 3.59c.

The Home Market on the fortnight has been quiet, and prices are about unchanged. Yesterday's values were: London Granulated, 50/14 spot; American Granulated, 49/9 spot; West Indian Crystallised, 44/6 to 46/- spot; White Mauritius, 47/6 to 48/-; White Java, 47/0 to 48/6. Cuban 96 deg. new crop was quoted February at 17/4, c.i.f.

Terminal market values were:—White, January 21/8, February 21/10, March 22/2, May 22/4.

The Board of Trade Returns for November show that during the month 181,906 tons were imported into the United Kingdom, consisting of 53,567 tons of refined, and 128,339 tons of unrefined. As might be expected from the time of year, the imports of beet sugar from the Continent were greatly increased, amounting to 43,712 tons, as against 19,778 tons in October. Holland supplied 17,059 tons, Belgium 18,261 tons, France 4,013 tons, and Czecho-Slovakia 3,559 tons. From countries outside of Europe, 2,501 tons (white plantation) came from Java, and 3,716 tons (refined granulated) from the United States, with 3,638 tons from "other countries," presumably Canada. In the unrefined category, 39,945 tons were imported from Mauritius, 39,000 tons from Java, 11,766 tons from Peru, and 1,773 tons from the British West Indies. Only 1,953 tons came from Cuba.

The total imports for the eleven months were 1,818,954 tons, 468,756 tons of which were refined and 728,042 unrefined. 114,728 tons of refined came from Europe, including 49,350 tons from Holland, 24,559 tons from Belgium, 6,412 tons from France, and 29,197 tons from Czecho-Slovakia. The imports of American granulated were 268,318 tons, and of white plantation Java 10,858 tons. "Other countries not in Europe" supplied 97,969 tons. The unrefined imports were 1,432,189 tons, which included 631,988 tons from Cuba, 82,690 tons from Peru, 164,315 tons from Java, 96,197 tons from Brazil, 172,796 tons from Mauritius, and 95,080 tons from the British West Indies. The total imports of 1,818,954 tons compare with 1,166,919 tons for the eleven months of last year.

The export of home refined sugar for the month was 943 tons, bringing the total for the eleven months to 29,364 tons, and the re-exports 1,361 tons for the month and 12,735 tons for the eleven months.

The stocks on hand on November 30th amounted to 350,750 tons, consisting of 32,300 tons of foreign refined, 53,000 tons of home refined, and 265,450 tons of unrefined. These figures compare with the stocks on hand on October 31st of 284,700 tons, consisting of 30,000 tons of foreign refined, 42,150 tons of home refined, and 212,700 tons of unrefined. The quantity of sugar liberated for consumption during the month was 131,902 tons, as against 148,683 tons in October. This brings the eleven months' consumption up to 1,467,806 tons, as against 1,289,231 tons for the corresponding period of last year. The refiners' con-

tribution to the consumption during the month was 70,209 tons, bringing their total for eleven months to 876,007 tons.

RUM has been quiet on the fortnight, and it is not anticipated that any more business will be done until the New Year. Prices are about steady.

The quantity of rum imported during the month was only 23,124 proof gallons, as against 32,000 gallons in October last, and 268,069 gallons in November of last year. The total imports for the eleven months were 1,478,274 gallons, as against 1,085,800 gallons for January–November of last year. The re-exports were 54,290 gallons, as against 93,204 gallons in November last year, which bring the total re-exports for the eleven months up to 410,283 gallons as against 434,110 gallons for the corresponding period of last year.

The quantity liberated from bond for consumption was 227,608 proof gallons, as against 152,947 gallons in October, and 305,000 gallons in November, 1921. The stocks on hand on November 30th were 10,262,000 proof gallons, as against 10,669,000 on October 31st.

CACAO remains quiet, with the prices of Trinidad and Grenada sorts about unchanged. Fine estates Trinidad is selling slowly at 63/-. Export business remains rather slow.

The month's imports of cacao were 43,036 cwt., of which 1,422 cwt. came from the British West Indies. The eleven months' imports were 1,104,496 cwt., as against 1,067,116 cwt. for January–November, 1921. During the eleven months 125,370 cwt. have been imported from the British West Indies, as against 149,614 cwt. in the corresponding period of last year. The re-exports for the month amounted to 25,700 cwt., bringing the total for the eleven months to 239,409 cwt., which compares with 580,969 cwt. for January–November last year. The consumption for the month was 96,391 cwt., bringing the total for the eleven months to 928,173 cwt. This compares with 855,486 cwt. during the corresponding period of last year. The stocks on hand on November 30th were 518,000 cwt., comparing with 589,000 cwt. on October 31st last, and 619,000 cwt. on November 30th, 1921.

ARROWROOT. There is rather more doing in manufacturing sorts at 54d. to 54d.

BALATA. The market for West Indian sheet is very firm, with spot valued at 3/8, and forward positions at 2/5 c.i.f.

COFFEE. There is not much doing in this market, and the last public sales of the year are being held to-day. At last week's auction 82 bags of fine ordinary Jamaica were offered, but were mostly bought in. The nominal quotation for good to fine ordinary Jamaica is unchanged at 70/- to 75/-.

COPRA is steady to firm, with buyers of West Indian f.o.b. at 225 15s., less 2½ per cent. discount, c.i.f. London or Rotterdam.

HONEY is a quiet market, and quotations on the fortnight are about unchanged. Dark liquid Jamaica is valued at 37/6 to 40/-, and dull to fine pale set 45/- to 62/6 cwt.

LIME PRODUCTS. **Lime Oil.** Distilled is dearer, with buyers on the spot at 2/3 per lb. Considerable business is reported in c.i.f. at 1/10½ per lb. Handpressed is neglected. **Lime Juice.** In Concentrated, higher prices are expected. The last sale reported was at 218 3s. Cheap offers of Raw from outside sources are weakening the market.

LOGWOOD continues quiet, with values nominal at about 27 10s. to 28, c.i.f.

SPICES. The market for **Pimento** has become a little quieter, with less demand from Hamburg. Fair quality on the spot is valued at 2½d. per lb. There were sellers yesterday to Hamburg at 18/9, c.i.f. There is no demand for Jamaica **Ginger**, and prices are consequently nominal. There is again no change to report in **Nutmegs** and **Mace**.