

REPORT  
OF A  
PROSECUTION AT TREDEGAR  
UNDER THE  
SALE OF FOOD AND DRUGS ACT,  
FOR SELLING  
**Dyed Sugar as "Demerara."**

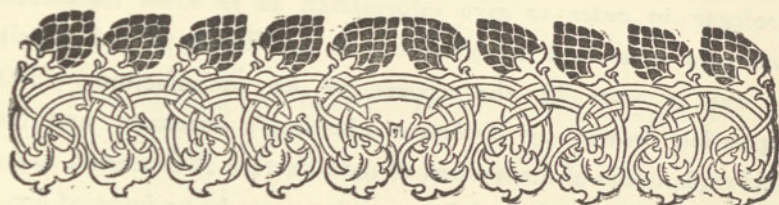
JANUARY 15th, 1901.

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**PRICE SIXPENCE.**

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London:  
THE WEST INDIA COMMITTEE,  
BILLITER SQUARE BUILDINGS, E.C



## INTRODUCTION.

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The Public Press in January last contained a report of a Prosecution under the Sale of Food and Drugs Act, which was instituted by the Monmouth County Council, and heard at Tredegar on January 15th last, for selling as Demerara sugar, sugar which was not of the nature, substance and quality demanded, to the detriment of the purchaser. In publishing a more detailed report we have refrained from referring to the defendant grocer by name, believing him to have acted in good faith. At Sudbury, recently, a case was heard which would at first sight appear to be on all fours with this Tredegar case. The Sudbury case was, however, dismissed, inasmuch as it was proved that the sugar in question which contained aniline dye came originally from an estate in Trinidad, and there was no one present in Court to give evidence that no dye was used on that estate. Since then we have received certificates from 54 sugar estates in British Guiana and 15 in Trinidad to the effect that no dye is there used in the manufacture of Demerara crystals, and taking advantage of the presence in this country of Professor J. B. Harrison, F.I.C., F.C.S., Government Analyst and Professor of Chemistry for British Guiana, we brought to his notice this proposed County Council Prosecution and he accordingly with the permission of the Colonial Office consented to attend at

Tredegar in order to give information as to what constitutes Demerara sugar and his assurance to the Bench that absolutely no dye is used in the course of its manufacture. The impression created by Professor Harrison's statement and his lucid explanation of the method of manufacture of Demerara sugar led to the exemplary fine of £10 and £15 costs being imposed upon the defendant grocer. It cannot be too widely known that the popularity of Demerara sugar, that is to say West Indian cane sugars, made after the Demerara process, is due to its aroma and flavour which arises from the thin layer of molasses remaining adherent to the otherwise white crystals. This thin layer of molasses gives to the sugar the distinctive colour which is entirely absent from beet crystals. Under these circumstances it is difficult to see what object the producer of "Demerara" sugar would have in resorting to the use of colouring matter for his crystals, which are intrinsically far more palatable than the coloured imitations.

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**REPORT**  
OF A  
**PROSECUTION AT TREDEGAR**  
FOR SELLING  
**DYED SUGAR as "DEMERARA."**

*January 15th, 1901.*

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An important case under the Sale of Food and Drugs Act was decided by Mr. E. J. Williams (chairman), Mr. J. Stanfield, and Mr. A. Barret, at Tredegar Police Court, on January 15th, 1901, when a grocer was prosecuted for selling, to the prejudice of the purchaser, an article of food, to wit, Demerara sugar, which was not of the nature, substance and quality of the article demanded, the same being white sugar crystals, dyed with an aniline dye to resemble Demerara sugar. Mr. Lyndon Moore, Newport, Mon., solicitor, appeared for the prosecution; and Mr. Baker Jones, Newport, solicitor, for the defence.

Mr. LYNDON MOORE, in opening the prosecution, said: Your worships, this prosecution is one under Section 6 of the Food and Drugs Act. The contention of the prosecution is that a purchaser asking for Demerara sugar is entitled to the genuine article, and not a dyed sugar which is coloured for the purpose of imitation. I do not think it will be contended that the sugar complained of either came from Demerara or was manufactured in any of the English West Indian Islands according to the Demerara process; but it will probably be contended that it is a sugar which is "commercially" known and sold as "Demerara." The prosecution deny that this particular sugar is known, or should be sold, as "Demerara" sugar, and assert that it is not of the nature, substance, and quality of the article demanded by the inspector when he purchased the sugar in question. It is probably within the knowledge of the Bench that some Birmingham justices last year gave a decision which appeared to support the contention that a dyed sugar could be "Demerara sugar" and that there have been one or two decisions following that one which appear to favour the same view. As I understand the Birmingham case it was based upon the evidence of witnesses who stated that sugar from

Demerara was dyed, and that West Indian sugar practically was all coloured with a dye. That evidence seems to me to have been given by some few experts, no doubt of eminent reputation, but the contrary was as strongly affirmed for the prosecution by experts of equal repute. I understand also that the evidence as to the dyeing in Demerara was given by experts who knew nothing, of their own knowledge, of what was done in Demerara. The only way, therefore, to solve the question—namely, of whether “Demerara” is dyed or not was to obtain the evidence of witnesses from British Guiana. In the present case I have been fortunate enough to obtain the very best evidence that could possibly be presented to a court upon this point. Professor Harrison, of Georgetown, Demerara, has come down to give the Court the advantage of his long and unrivalled experience. He is intimately acquainted with the manufacture of sugar, is the Government Analyst, and has to decide innumerable questions connected with sugar manufacturing. It is my duty to inform the Court that Professor Harrison is in no sense an *ex parte* witness. He would not, I understand, be permitted by the Colonial Office to give evidence of an *ex parte* character. He is here without fee or reward of any kind, simply to put the Court in possession of information which will assist the Justices in coming to a decision. Professor Harrison will state as an undoubted fact, that “Demerara” sugar is never dyed. I have also the advantage of the evidence of Dr. Teed, Doctor of Science, who is the analyst of the Metropolitan Boroughs of Camberwell and Islington, who will give evidence in addition to that of Mr. Thompson, the Monmouthshire County Analyst, disproving the dyeing of “Demerara” sugar. After briefly describing the “Demerara process” of making sugar, Mr. Moore concluded by observing that “whatever traders or even analysts may have thought of the dyeing of sugar in Demerara after the evidence in the Birmingham case, I do not think, when Professor Harrison has given his evidence, that it will be seriously contended that there is any such dyeing.”

I will now call the Prosecutor.

Examined by Mr. Moore, THOMAS EDWARD SERJENT says:—I am an Inspector of the Monmouthshire County Council under the Food and Drugs Act. On November 14th I called on the defendant, A—B—, grocer, at New Tredegar. I entered his branch shop and saw his assistant, a man named Evans; I asked him if he had any “Demerara” sugar. He said, “Yes.” And I then asked him to let me have a pound of it, which he did, and I paid him 2d. for it. I informed him that I had purchased it to have it analysed by the

public analyst. I divided it into three parts in the usual way, and gave him one. I sent by Registered letter one of the samples to Mr. Thompson, public analyst for the County of Monmouth. I received from him a certificate of analysis (produced). I served defendant in due course with a copy of the certificate and summons. I asked for Demerara sugar and expected to get it.

(Cross-examined by Mr. Jones.) When I saw Mr. Thompson's certificate I thought I had purchased a different sugar to "Demerara"—a dyed sugar. It may have been a pure cane sugar, but dyed, and my objection to the sugar is that it is dyed, and not "Demerara"; because the sugar is dyed it is not "Demerara," that is my impression. I know that some things are dyed. I have never found dye in milk. There is a colouring matter in butter, but we don't prosecute because of that. I am not aware of any colouring matter in cheese.

(Re-examined by Mr. Moore.) I understand that "Demerara" has a flavour peculiar to itself—only found in "Demerara" sugar. I am not an analyst, and I do not analyse these things, and the colouring matter in butter comes under another section.

(By Magistrates' Clerk.) There is a difference in the price of the sugars. I have bought "Demerara" before, and found it to be "Demerara," and gave the same price for it—2d. a lb.

GEORGE RUDD THOMPSON says:—I am the analyst for the County of Monmouth. I, on the date named in my certificate, received from the last witness a sample of sugar. I confirm my certificate, which is as follows:—

Moisture	..	..	..	..	..	0.45 %
White Sugar Crystals	..	..	..	..	..	99.55 %
Aniline Dye, a trace.						

This is a sample of white sugar crystals dyed with an aniline dye to resemble Demerara sugar, but this sample is not Demerara sugar.

The sample was marked No. 115 Demerara sugar, and the result of my analysis showed me as stated in certificate that the sugar was not "Demerara," and I accordingly issued this certificate.

In the last ten years I have had hundreds and hundreds of samples for analysis of the genuine "Demerara" sugar—they were not coloured—not with aniline dye—no dye at all. In this sugar the dye was one of aniline.

This aniline dye would be used for the purpose of making crystals resemble "Demerara" sugar—that was the sole purpose for which it was added. "Demerara" sugar is a raw sugar. The object of the addition of the dye was to make the crystals resemble Demerara. Refined crystals are crystals from which have been eliminated the whole of the colouring matters.

The colouring matter of the raw "Demerara" sugar is an integral part of the sugar, and, I believe, is due to a small quantity of essential oil, and to a natural colouring derived from the rind of the sugar cane.

I have the remainder of the sample with me, and also some genuine "Demerara" sugar (Mr. Thompson hereupon produced two samples, the one marked No. 115 he placed in one basin, and in another a sample of genuine "Demerara" sugar—which he stated was received in the ordinary way from the inspector). He applied a small quantity of a re-agent to both samples, the fictitious sample turned red or pink, the other retained its colour.

(Cross-examined by Mr. Jones.) The pink appearance is due entirely to the aniline dye. I say that "Demerara" sugar will not take aniline dye.

I have seen Mr. Stoddart's certificate, and in his certificate there is .51 of invert sugar and .15 of ash. I don't say that these are wrong, but I do say they were included in my expression of "white crystals."

It does not follow that white crystals mean Beet Sugar Crystals. I don't think the description of white crystals generally and ordinarily imply beet sugar—it may mean cane sugar crystals. I maintain that it is not necessary to insert these two things. I say it is included in my expression, white crystals. Unless one happens to be an expert in sugars an analyst cannot tell whether it is beet or cane sugar if they are both fairly refined. I would not swear that in this particular case I could tell that it was a cane and not a beet sugar. I say that white crystals mean a cane sugar as much as they do a beet sugar. I know nothing of the trade. I know nothing of the "Demerara" manufacture of my own absolute knowledge. That sugar which my professional experience has taught me is "Demerara" sugar has a characteristic flavour and colour, and in many cases a smell which the fictitious sugars have not. I do say that "Demerara" sugar is not dyed. I say that this sugar contains an aniline dye, and is not therefore a "Demerara" sugar.

I have read something about the Birmingham case. I believe some of the experts in that case did make a statement that dyes were used in "Demerara" sugar. I believe that in a report of that case some very eminent analysts and some well known commercial men are stated to have said that "Demerara" sugar was dyed with aniline dye, but they were met with a flat contradiction and told they were saying that which was incorrect.

I don't know what it cost to fight that case. It may have been £300.

My interpretation of that case was that the magistrates found upon the evidence which had been tendered to them that the sample was a dyed sugar, and there was no proof that it was not a "Demerara" sugar. I cannot say that in that case it was put that all sugars from the West Indies should be classed as "Demerara," but that the particular sample was dyed sugar and in the opinion of some of the experts being dyed was still "Demerara." All aniline dyes do not turn red on application of the re-agent I used; it has to be a specific dye to turn colour as shewn. There are many articles of food that come before me that are dyed. I simply say that because of the presence of the dye in this it is a fictitious article.

It is a sugar of an inferior grade to raw "Demerara" sugar, and is made to resemble it, a better price being obtained for it by adding the aniline dye.

I understand it requires skilled attention and labour, and high-priced labour, to produce "Demerara" sugar. This sample is inferior—is inferior to the raw "Demerara," because it does not contain the particular constituents which determine whether a sugar is raw "Demerara" or not. I did test it for this. If it is a "Demerara" sugar the colour is not removable from that sugar in the same manner as from this sample—it is part and parcel of the sugar itself in "Demerara" sugar; and in this sample I have been able to remove the colour, and found I had white sugar left behind. The colour of the "Demerara" sugar is due to a natural colour, which, I believe, is located in the rind or skin of the cane—it is inseparable from the juice. Chloride of tin is used to fix the colour—the colour would be there even if the chloride of tin was not used, but in a less degree. When this sample has been treated by chemical means I can remove the whole of the colouring matter and leave the white crystal sugar behind.



If any witness in the Birmingham case made a statement that chloride of tin produced the colour he did not know what he was talking about. My knowledge of "Demerara" sugar is the result of what I have heard, and of my experience of results. My experience and analytical results tell me whether sugar is "Demerara" or not.

It is impossible to give you better evidence of the particulars of Demerara sugar than will be given by Professor Harrison.

(Re-examined by Mr. Moore.) It is a charge of selling a fictitious article—it is a question of whether you get a particular sugar of a particular colour and flavour. I say that I am sure this was not the article asked for—"Demerara" sugar, because it contains a dye which "Demerara" sugar never contains, and I say that in this sample the colour could be washed out. This is a refined sugar, and "Demerara" sugar is a raw sugar.

The Birmingham case was one decided simply on the evidence of English experts, and men of no practical experience in the actual manufacture, and the magistrates gave a decision upon a particular evidence.

JOHN BURCHMORE HARRISON said: I am an M.A. of the University of Cambridge, and was Island Professor of Chemistry at Barbados from 1879 to 1889. I am now Professor of Chemistry, and the Government Analyst for British Guiana. I am also the Honorary Consulting Chemist to the Imperial Department of Agriculture for the West Indies. I am Consulting Chemist to the Agricultural Committee of the Royal Agricultural and Commercial Society in British Guiana, and am a Fellow of the Institute of Chemistry and member of various scientific societies.

I have had a very large experience in the matter of "Demerara" and West Indian sugars generally—21 years' experience.

At the request of the United States Government, and with the permission of the Colonial Office I have given evidence in Court in the United States upon questions of sugar analysis.

Under the term "Demerara" is usually included the whole of British Guiana. British Guiana is a place the size of Great Britain, which is divided into three counties—Demerara, Essequibo, and Berbice. The seat of Government is in Demerara, and consequently "Demerara" is used merely as a synonym for British Guiana.

Demerara sugar is manufactured according to a well-known process, and one specially employed for the purpose of retaining on the crystals

the peculiar colouring matter which is got from the rind of the sugar-cane, and also the flavour and aroma characteristic of cane juice; this aroma is due in part to the presence of minute quantities of essential oil in the cane. I have had practical experience as well as theoretical in the manufacture of cane sugar.

The Demerara process has been adopted in Trinidad, Barbados, and to some extent in Antigua and St. Kitts. In Barbados, to my own personal knowledge, and also in Trinidad, it has been frequently conducted by experts sent from Demerara to superintend. The seasons follow so that they can be sent from the one place to the other. Demerara sugar is never dyed or artificially coloured.

I made some experiments in Barbados some 12 or 13 years ago to see if the sugar would take a dye, but the sugar was already so well coloured that we could not get any effects from the dye upon it—it was simply a waste of money. To my knowledge, similar experiments were made in Demerara with similar results.

I am here without any fee or reward of any description, and I am only permitted by the Colonial Government to give evidence for the purpose of putting the Court in possession of reliable information, not to advocate any particular side. I am at present in England on leave of absence. (On the certificate of Mr. Stoddart being handed to witness, he said)—It suggests to me that this sugar is not a Demerara sugar as stated in the certificate—for instance, it contains invert sugar; this is not present to any extent in Demerara sugar; we have present in it a natural optically inactive glucose from the cane, which is not invert sugar.

I know Mr. Tinne. The estates in question belong to Sandbach, Parker & Co., and to the best of my knowledge they have not made yellow sugars for several years; they make grey crystals for the United States market—they may make yellow sugars occasionally.

I am acquainted with the majority of the plantations in British Guiana, and with many in the West Indies.

I get their products for the purpose of examination, and I am consulted by very many of the proprietors from time to time in these matters.

I was not in this country at the time of the Birmingham case.

When I read the evidence given in that case I was simply astounded; it was news to us in Demerara that we used dyes in our

sugar ; but in order to make certain whether such dyes might have been used by some of the makers experimentally, a circular was sent round to the manager of each estate that made crystal sugar in Demerara, and each manager has returned a Declaration that he uses nothing whatever in the nature of a dye, and some of them say they never heard of dye being used. I know that we have nothing imported into the colony to dye sugars with.

I understand that some English experts say that Demerara sugar is dyed.

I think from Mr. Stoddart's analysis that in this case probably a solution of invert sugar was coloured with aniline dye and poured over the white refined crystals.

I have made a great number of analyses of Demerara sugar.

(Cross-examined by Mr. Jones.) It is a little over two months since I left British Guiana.

I was appointed by the Colonial Office. I am more particularly interested in British Guiana where I have been residing and carrying on my profession.

I said that "Demerara" is used as a synonym for the whole of British Guiana, of which it is a district.

I am Consulting Chemist to the Imperial Department of Agriculture for the whole of the British West Indies.

I am not anxious that the sugars of that particular district of British Guiana should monopolise the meaning "Demerara" sugar.

I am acquainted with Mr. Newlands by repute. We in Demerara do not recognise that he is in any way eminent with regard to the manufacture of cane sugar in the West Indies. He is a very eminent expert with regard to sugar refining. I know that he endeavoured to introduce the use of an aniline dye in the manufacture of cane sugar. If he made a statement at Birmingham that "Demerara" sugar is dyed, that statement is incorrect. I know nothing about the retail trade in England. I don't know what has been the custom between the retail grocer and the purchasers from him in England. I know there have been various prosecutions for adulterated sugar in the past 12 months.

My evidence is to the effect that the statements which have been made that aniline dyes have been, and are being used, in Demerara

for colouring sugars are not facts. Demerara sugar has never been dyed with an aniline dye further than for experimental purposes, when the attempts were absolute failures. Some English experts have said, and think otherwise—they have said that "Demerara" sugars have been dyed; they have absolutely no personal knowledge of the matter as far as it relates to the manufacture of sugar.

(Re-examined by Mr. Moore.) I believe Mr. Newlands claims to be the introducer of one of the preparations for the purpose of colouring sugar, and this gentleman is an advocator of that system. He, doubtless, regards it as an improvement.

(By the Bench.) "Demerara" sugar is a totally different article from dyed sugar. The dyed crystals are crystals with everything characteristic of "Demerara" sugar absent or removed, and then colouring added to make them resemble it by their yellow tinge.

FRANK LITTLERLAND TEDD says:—I am a Doctor of Science of London University, Barrister-at-law, Public Analyst for the Metropolitan Boroughs of Islington and Camberwell, and Fellow of the Institute of Chemistry, etc.

I have practised as an analytical chemist for some twenty years, and have had considerable experience in the analysis of various sugars.

There is a raw cane sugar prepared by the name of "Demerara" in Demerara, and in later years the term has been applied to sugars prepared in some parts of the West India Islands by the "Demerara" process.

I have seen the certificates of analysis for the prosecution and defence. The certificates show an analysis of a sample of sugar which has been made to imitate Demerara sugar.

The true Demerara sugar never has as much crystallisable sugar as 97.40 per cent., the amount in Mr. Stoddart's analysis, and the ash in my experience never goes as low as .15; and there is furthermore in Demerara sugar a quantity of other organic matter, but in this analysis there is no trace shown of other organic matter. "Other organic matter" is the difference between the sum of the ingredients determined and 100. There is no trace of that shown in defendant's analyst's certificate. This would indicate that this sugar must have been a very highly refined sugar. The glucose in cane sugar is not invert sugar, but a natural glucose yielded by the sugar cane.

I base my opinion that the sugar complained of is not "Demerara," but a highly refined sugar that has been treated to imitate Demerara sugar: First of all on the presence of invert sugar, secondly, the somewhat excessive amount of the crystallisable sugar, here called cane sugar; thirdly, the small quantity of ash; fourthly, the presence of the yellow dye; and fifthly, the absence of "other organic matters."

I have not been to Demerara, and my experience, like Mr. Thompson's and the other English chemists, is derived from my examinations of sugars, some of which were supplied by West India people.

From sugar submitted to me for my analysis, and which I have understood to be "Demerara" sugar, I say "Demerara" sugar is invariably undyed.

The sample is undoubtedly refined sugar, which has been treated with invert sugar and dyed. I have heard a manufacturer of yellow crystals state in the witness-box that they were made by pouring a mixture of invert sugar and dye over refined crystals, and the presence of invert sugar and dye suggests that the same method was adopted in this case.

"Demerara" sugar has a flavour and odour which these sugars have not. A "Demerara" sugar could be obtained for 2d., the price charged the inspector.

We sometimes see in shop windows cards showing "Yellow crystals, 1½d.;" "Demerara 2d."

The present sugar might be beet, but it certainly is a refined sugar coloured. I have not analysed a sample of this sugar, but I have seen it. I cannot tell from either of the analyses whether the sugar is cane or beet sugar. I don't think there has been a great deal of difference between analysts on this question. There are one or two gentlemen who are more or less interested in the beet sugar trade who have always maintained that these coloured crystals are virtually the same as "Demerara."

I have heard Mr. Hehner examined, and he said he would only want "genuine Demerara" for a museum—he contended that "yellow crystals" sugar was superior to Demerara.

I was present at twelve cases as the analyst for the prosecution, and there were some analysts on the other side, and when they were pressed into a corner they had to admit that the particular samples then

before the Court were not "Demerara" sugar. I could not tell what sugars those samples were, but they were dyed in each case.

Refined sugar crystals may be beet or may be cane, and are sometimes a mixture of both—in most fictitious sugars it is a mixture of both—and it is impossible when a certain stage of refinement has been reached to tell what is cane or what beet.

The tolerating of dyeing of crystals to resemble "Demerara" tends to fraud.

If this sugar were originally cane, it is probably a refined sugar imported into France from Martinique, and thence exported to England. In France exporters get a bounty on exported refined sugar.

The sugar has then to be coloured to be sold to the British Public as "Demerara."

Mr. MOORE: That, your worships, is the case for the Prosecution.

Mr. BAKER JONES then opened the case for the defence, saying:—The present prosecution is one of a very different character from the ordinary prosecution for adulteration. Since the decision before the Birmingham Magistrates last year, tradesmen such as the defendant may well be excused for thinking that "Demerara" sugar is dyed. There have also been one or two later cases before magistrates which would confirm this opinion, although I must admit there have also been decisions the other way about. I submit it is a very hard case for my client that he should be called upon to fight a powerful body like the Monmouthshire County Council, and I wish the case had been contested against someone who could have offered a determined opposition, and could have called experts regardless of expense. The defence, however, will be that the sugar sold is "commercially known" as Demerara sugar. I shall call the defendant, who will state on oath that he ordered "Demerara" sugar, and that the defendant bought the parcel of sugar, from which the portion sold to the inspector was taken, as "Demerara" sugar. I shall, in addition to calling the defendant, put Mr. Stoddart, the Bristol analyst into the box, and he will confirm my contention that the sugar sold is known in the trade as "Demerara." I should further add that since the Birmingham case a good many analysts, as well as traders, have been led to think that sugar from Demerara is dyed; but after the evidence of Professor Harrison whose knowledge and experience are exceedingly great, I am not prepared to affirm that sugar is dyed in Demerara. However, that does not affect the defence I shall put forward—namely, that

although dyed, this particular sugar is known commercially as "Demerara." I also submit that the certificate of the analyst is not sufficient—that it does not say whether the crystals are those from beet or sugar cane. Upon receipt of the summons and the accompanying certificate the defendant might well assume, and, in fact, did assume, that he was charged with selling a beet sugar. It appears now, however, that it is not asserted the sugar was from beet. Therefore, if any offence has been committed by A—— B——, which I assert has not, it is of a most trivial and technical description.

I ask you to dismiss the case.

I call the defendant.

A—— B—— says:—I am a grocer at New Tredegar. I have been in business for six years, and previously was in the trade for eight years. I was for five years with Messrs. ——.

In my experience as a grocer, raw sugars—West India cane sugars—come under the designation of "Demerara."

Customers never ask for raw sugar or West India sugars. Sugars are sometimes invoiced as raw sugar, but I sometimes get them as West India sugar.

As to this particular sugar, a traveller called on me, and I asked him for a sample of "Demerara" sugar, and he showed me a sample, and I bought some from that. I gave 16s. a cwt. and paid carriage from Bristol—that is a fair price for "Demerara" sugar. My profit on the cwt would be about 1s. 7½d. The article, when it came to me, was invoiced as five bags of crystals, raw, and I did not take any exception to that. I always understood "raw" sugar and "Demerara," to be the same thing. When I first saw the certificate (Mr. Thompson's) the impression left upon me was that I was being charged with selling white sugar crystals which I always understood in the trade to mean beet sugar. I was quite satisfied this was not beet sugar.

(Cross-examined by Mr. Moore.) I cannot tell the difference between a refined beet sugar and a refined cane sugar. I was not aware that the sugar was not "Demerara." I was relying upon it as being invoiced as raw sugar. I did not know sufficient of the trade to suggest to my mind that it was not a raw sugar.

The sellers to me are large dealers. I do not know whether they own any refineries. I don't know whether they buy from others. Their traveller calls and shows samples, and I buy them. I know a

little about the Foods and Drugs Act. I know that if I obtained a warrantry I could go against the sellers. I never obtained a warrantry in case of sugar. In the retail trade all these sugars are known as "Demerara" sugar. I know nothing of the wholesale trade. I do not know whether they would be regarded as "Demerara" in the wholesale trade.

I have heard of genuine "Demerara" sugar. I don't know whether I have seen it. I don't know whether I have bought any—any further than I am under the impression that when I buy raw sugars they are "Demerara." I don't know the difference in flavour between "Demerara" sugar and coloured sugar—not if it is cane sugar—if it is beet sugar I know the difference.

If a customer comes into my shop and asks for "Demerara" sugar he ought to get it, and I would not consider he got what he asked for if he did not get "Demerara." In this particular case I did not know that Inspector Serjent did not get "Demerara" sugar. I buy sugar from other firms.

When I asked for "Demerara" sugar the sample in question was shown me. I cannot give the names of any other firms who, when I ask for "Demerara," supply me with raw sugar.

If I bought this as yellow crystals I could have got them at a much cheaper price.

What I say is, whatever my legal liability is, the real blame should rest on those who sold it to me. I have no warranty—I did not think it was necessary. I thought I was buying the right thing. When I asked the traveller for "Demerara" sugar the firm sent me this.

(Re-examined by Mr. Jones.) I am satisfied from my experience as a grocer that this particular sugar is "Demerara" sugar. I can distinguish between beet sugar and "Demerara" sugar, and the sugar the Inspector bought answers according to my experience to the description "Demerara" sugar.

Yes, I do say this sugar answers to what I have always understood to be "Demerara" sugar, both in smell and taste.

FREDERICK WALLIS STODDART says:—I am public analyst for Bristol and other places, I am also a lecturer, &c.



I received a sample of sugar marked 115 Division B. Monmouthshire County Council, and I analysed it with the result:—

Moisture .. .. .	94
Invert Sugar .. .. .	1.57
Cane Sugar .. .. .	97.40
Ash .. .. .	.15
Yellow dye, a trace.	

I confirm my statement, and I consider that the sample is what is "commercially" known as "Demerara" sugar.

I have seen Mr. Thompson's certificate. I consider that he omitted from that certificate some necessary details. I think he misrepresents the sample altogether. There are no white crystals. These crystals described in Mr. Thompson's certificate as white crystals are not what are known as white sugar crystals; it is partially refined cane sugar.

(Cross-examined by Mr. Moore.) Highly refined crystals from either source—i.e., either from the beet or sugar cane are indistinguishable. The sample does not contain white crystal sugar. This is a sample of imperfectly refined white crystals. (On being handed a small bottle containing crystals witness said they have been washed.)

White crystals are practically pure cane sugar.

I know there is a species of genuine "Demerara" sugar—that is a naturally coloured sugar made according to the Demerara process. If there is no dye there is a colouring left in it—it does not wash out.

I cannot say that I know of any sugar made according to the "Demerara process" that has been dyed.

I am not differing in the least degree from Professor Harrison. The "Demerara" sugar is sugar produced from sugar cane and sufficiently refined wherever produced.

I do wish to include in the term "Demerara," sugar not made according to the Demerara process; and these sugars have a commercial value.

Dyed sugar first came under my notice about 2 or 2½ years ago, and it was some time before I recognised exactly what it was—a cane sugar partially refined and dyed. I went into the matter pretty fully at the time and laid the matter before my Committee. Two years ago

I came to the opinion that sugar not made according to the "Demerara process" might be considered "Demerara" sugar. Until I heard Professor Harrison, I believed that Demerara sugar was dyed. After hearing him I cannot believe that it is dyed on the spot. I have never attempted to dye "Demerara" sugar. I look upon invert sugar as that which is invariably produced (as I understand) by boiling down sugars, and which is adherent to the crystals.

I don't know how the sugar was produced. I could not say that some had not been introduced in the way that has been suggested—that the dye was first of all applied to the invert sugar and then that poured over the crystals.

The white sugar crystals are refined sugars, and which contain a fifth per cent. of organic matters of all kinds—*i.e.*, extraneous matters other than sugar.

The proportion of ash, .15, suggests a fairly highly refined sugar.

97.40 of cane sugar still contains 100 of sucrose. I have never bought sugar—never been engaged in the sugar trade. I know nothing about the dealings between wholesale houses. I would expect in the wholesale trade that if you ordered 5 tons of "Demerara" sugar you would get raw sugar.

"Demerara," sugar has a peculiar flavour. All cane sugars have. I say that there is a characteristic flavour and colour to all incompletely refined sugar cane sugars—that these features exist in the highest degree in the special Demerara sugar Professor Harrison has described.

This particular sample is an exact type of a class of sugars which I consider "Demerara" sugar—the characteristics are there—but perhaps not to the degree Professor Harrison would expect in sugar prepared according to the process described by him. I know nothing about the "Demerara" process. All Professor Harrison's statements I have no hesitation in accepting. Until I heard his statement I believed that sugar dyed was described as Demerara.

Mr. Newlands became an advocate of dyeing. I am intimately acquainted with Leake and Newlands' work.

I have condemned many dyed sugars—*i.e.*, beet crystals plus dye. I don't think there is any sugar refined in Bristol at present, and the sugars they there sell are sugars bought through middle parties.

With regard to the prices of sugar I know that this is a price which would agree with the prices charged for genuine "Demerara" sugar. I don't think for the sugar sold to the inspector he was overcharged. I don't think it was sold to him at the highest price of "Demerara" sugar. You are not entitled when you ask for "Demerara" sugar to get "Demerara" sugar made according to the Demerara process. I say contracts for "Demerara" sugar are fulfilled if "Demerara" sugar in Professor Harrison's sense is not delivered to purchaser.

The price is a question of quality.

The higher class of "Demerara" contains these characteristics of the sugar cane.

I take it from Professor Harrison that "Demerara" sugar is raw sugar, not refined at all. I should call this sample simply partially refined cane sugar. I would not call the crystals in bottle produced in their present stage "Demerara."

I should have called sugar "Demerara" sugar before the aniline dye was added; but if this sugar was derived from cane sugar and had the flavour of cane sugar, no matter what the colour might be I should call it "Demerara." I could not say what the sugar in bottle produced was called before the dye was added. I should describe yellow sugars undyed as "Demerara." I believe the reason of adding the dye is this—that the popular taste has been misled by the brilliant dyed crystals which are sold.

The sugar is dyed to lead the public to believe that they are getting something more attractive.

If the sugars were dyed any bright colour it would still be "Demerara." But pink or green sugar would not sell at all, and it requires this colouring matter to sell it readily.

(Re-examined by Mr. Jones.) The public have become attracted to a brilliantly-coloured sugar. Brilliantly-coloured sugar has generally been beet sugar, with aniline dye in it. Therefore a perfectly honest cane sugar has to have this dye added to it to compete with the popular taste.

I consider this sugar is properly commercially called "Demerara" sugar.

This closed the evidence for the defence.

The Magistrates retired, and after a few minutes returned and said that they found the article was not of the nature, substance and quality demanded by the purchaser, and fined defendant £10 and £15 costs.

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