

# OBSERVATIONS

#### ON THE

### MEANS

#### OF

### PRESERVING and RESTORING

### HEALTH

#### IN THE

#### WEST-INDIES.

Ye guardian Gods, on whom the fates depend Of tottering Albion !-----

That o'er th' incircling elements prefide ! May nothing worfe than what this age has feen Arrive ! Enough abroad \_\_\_\_\_\_ Has Albion bled.\_\_\_\_\_\_ \_\_\_\_ In the Weft, beyond th' Atlantic foam,

Her braveft fons, keen for the fight, have dy'd The death of cowards and of common men; Sunk void of wounds, and fall'n without renown, ARMSTRONG'S Art of Preferving Health.

### LONDON:

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#### TO THE

# OFFICERS of the ARMY

#### IN THE

### WEST-INDIES.

### GENTLEMEN,

I Attempted, in a very fhort Addrefs to the Officers who arrived in the Weft-Indies about the beginning of January 1781, to point out the moft obvious caufes which produce the difeafes in those countries; A 2 and and to shew that, by a regularity of conduct, it was in their power to avoid many of them, or to render them less active. The Observations I then made are now to be repeated; at the fame time they are to be enlarged and confirmed. The frequent occasion I have had of regretting the want of attention and care in the periods of recovery, induces me to point out the most eligible steps to be taken to accomplish the restoration of health.

THESE Observations, Gentlemen, are addressed to you in in two capacities; as individuals, and as men having the direction of others. As individuals, your feelings and difcernment will furely lead you to give a ready compliance with those things recommended to you. As men having the direction of others, your good-sense and humanity must force you to obtain a compliance in them. The foldier under your command is an object worthy of the most ferious attention, and you are bound by every tie to give it. On your military behaviour depends, A 3

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depends, in a great measure, particularly in the West-Indies, the prefervation and continuance of his health.

In the courfe of these Observations, many things will be applied to the private foldier, which in some instances will be applicable to you: when these happen, I trust your superior knowledge will render any direct repetition unnecessary; it is therefore avoided.

I FEEL it neceffary, Gentlemen, to folicit the protection 3 of of that candour and urbanity which fo eminently diftinguifh your character. I feel likewife an earnest defire to perfuade you, that the only motive I have in the publication of these Observations, is the firm belief I entertain of the great influence your own conduct has in the business of preferving and restoring health, in yourselves, and in the men under your command.

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AND here I beg leave to acknowledge the obligations I lie under to many Gentlemen in the feveral departments of the

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the Army for the affistance they have given me. To Mr. STEWART, Director and Purveyor of his Majesty's Hospitals in the Caribbee Islands, I am particularly indebted: but his professional abilities and extensive liberality place him beyond any effort of mine to make his virtues more conspicuous. I also confess my debts to other men, who, though remote from my personal acquaintance, are well known by their literary works; a confession which will be often repeated, as I shall carefully

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fully mark, whenever I have recourse to their sentiments.

I now take the liberty of fubscribing myself,

With the greatest Respect,

Gentlemen,

Your most obedient Servant,

JOHN ROLLO.

Barbadoes, 1782.

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### OBSERVATIONS

#### ON THE

#### MEANS of PRESERVING HEALTH

#### IN THE

### WEST-INDIES.

**E** XPERIENCE has fufficiently fhewn, that the difeafes which appear in the Weft-Indies, whether confidered as peculiar to them, or as proceeding from caufes prevalent in any country, are in general of a very dangerous nature, and are always of an uncertain and precarious termination.

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If we take a view of the difeases as they arife in the Army, we shall find that they chiefly originate from causes often within our power. to prevent, or to render less active. In the West-Indies an army is fubject to diseases of a different class, if we determine this from their feverity and fatality, from those with which natives, or even Europeans who are fixed in any constant fituation, are affected : and this must proceed from causes peculiar to the Army. A foldier is liable to be removed from place to place, to be exposed to the inclemencies of the weather, and to be employed in every species of hard labour; befides, he has no variety of diet, no choice of fituation, and

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and he must comply with whatever is directed. Even this is not all : a foldier, in an individual capacity, has frequently bad inclinations, which cannot be intirely reftrained; he has feelings and views peculiar to himfelf, which are difficult to be regulated. These traits of a foldier's character in the two views in which I have prefented him, as complying with his military duty, and as acting in a private capacity, account for the difference of his diseases, respecting feverity and danger, from those of other men. Officers can by ftrict discipline prevent irregularity, and a too frequent indulgence of vicious inclination; they can alfo, by an attention to cleanlinefs, to B 2 regular

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regular and well conducted meffing, and to fobriety, abate the rapid and mortal tendency of those difeases to which foldiers are more immediately liable.

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FROM a fuperiority of rank and circumftances, officers can regulate their own diet; they can often make a bad fituation comfortable; and they can avoid many expofures which it is impossible for a foldier to shun or to guard against. However, I am too fensible that there are many officers who are not always able to conduct themselves as their knowledge and prudence would direct. These gentlemen, particularly in the West-Indies, require an indulgent attention from GovernGovernment; and they undoubtedly merit a double exertion from those more immediately connected with them. A commanding officer has it always in his power to act the father and the friend to the virtuous subaltern. By watching and directing his behaviour in health, it is probable he may preserve it; by a kind attention to him in the hour of disease, he gains the efteem of all around; and he feels the inexpressible satisfaction which conftantly attends the exercife of humanity,

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### Of the CLIMATE.

Country differs in climate I from the fun's influence, from rain, and from peculiarities of foil and fituation. The Weft-India climate is different from that of Great Britain and North America, from the rays of the fun being more vertical and conftant; from having in general more rain; and from marshes, woods, or uncultivated ground. From fome of these circumstances, Islands in the West-Indies, though at a trifling distance, vary confiderably in climate, and in respect of health. Barbadoes and Antigua may be faid to have a different climate from that

that of St. Lucia and Tobago. The two former, comparatively fpeaking, are as healthy as any fpots in Europe; and the two latter are quite the reverfe: the difference arifes from rain, marfhes, woods, and uncultivated ground. Heat therefore, even although produced by the vertical rays of the fun, is not the principal caufe \* of

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\* It may be doubted whether the fun's heat is a caufe of any difeafe except a temporary head-ach, or what is called the "coup de foleil." Dr. Monro obferves, in his Treatife on the Difeafes of Soldiers, vol. I. page 4, That mere heat of itfelf is not fuch an enemy to health as is generally imagined. This the troops experienced at Coxheath in the fummer of 1778, &c. Dr. Naefmith fays, he obferved the fame thing in voyages to the Eaft-Indies, which afford the faireft trials of this kind. – Dr. Lind's Effay on Preferving the Health of Seamen, zd edition, note to page 5th.

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the unhealthiness attributed to the West Indies. The circumstances I have mentioned as producing the fickly alterations, we have in our power to remove ; at any rate, to alleviate or refift. The quantity of rain can be leffened by clearing and cultivating the ground; marshes may be drained; and if this is not practicable, we can select a fituation on which they have no effect. Neceffity may expose us to rain. and to the vapour of marshes; but even then we can by a guarded conduct partly refift their injurious impressions.

IN order to be more explicit respecting the climate of the West-Indies, I shall confider separately the the effects of the fun, night air, rain, and fituation, with the beft and most probable means of leffening the prejudicial confequences of each.

# Of the SUN.

THE human body is poffeffed of a confiderable power to refift the effects of heat or cold. Philosophical experiments have demonstrated that we are capable of enduring a degree of heat beyond what our feelings could poffibly suggest. The application, however, of artificial heat differs confiderably from that of the sun, from

from its being more equally applied. This is evident in the " coup de soleil," where the sun's rays are supposed to act in a direct and partial manner. The effects of artificial and natural heat may be faid to refemble each other in one respect-that if we divert the vertical rays of the fun, and have only an equal heat derived from the warmth of the furrounding atmosphere, nearly the same feelings, will be produced; as languor, or an universal weariness, an increase of perspiration, and perhaps a flight head-ach.

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It is feldom we cannot divert the vertical rays, and bring the heat of the fun to almost the fame mode mode of application and effect as the heat raifed by common fires; therefore, we may take advantage of the power which our constitution poffeffes of refifting heat, and of preventing any bad effects from the fun's particular influence by a conftant attention to the common means employed. An umbrella is one of the first things which prefents itself; and its use is attended with little trouble, though often neglected. The most proper umbrellas are those made of green filk, and of a large fize. A confiderable addition to their usefulness would be foon felt by a double covering of filk, or, what I prefer, a piece of thin dimitty, extending about twelve inches

around

( 11 )

## ( 12 )

around the top on their infide. A handkerchief \* folded and put under the hat is not only a good substitute for an umbrella, but with many it answers better. I know gentlemen whom the use of the unbrella does not secure from the head-ach when walking or riding in the fun, yet are defended from attacks of this complaint in the same degree of exposure merely by the use of a handkerchief. The umbrella and handkerchief may be used at the fame time. A very thin filver plate extending over the infide of the hat, and covered with dimitty or any cotton body, is likewife found useful; and

\* Black handkerchiefs are improper, and all filk ones are exceptionable.

it

it may be made to be transferred from one hat to another. Black hats are very improper in the Weft-Indies, although they are chiefly used. Soldiers ought to be allowed to wear white hats, which are procured with ease, and not at a dearer rate, I believe, than black. Those who are destined for the West-Indies may have their common regimental hats iffued to them without the black dye; and when they are in the West-Indies, they may be fupplied from home with the fame kind. Dr. Lind \*, a gentleman to whom the military world is much indebted, observes, " that the black hat, which con-

\* Esfay containing Advice to Europeans in Warm Countries, page 250.

" stitutes

" ftitutes part of the regimental " drefs of an English soldier, is " altogether improper in hot cli-" mates; as in those countries fol-" diers are apt, in the heat of the " day, to be fuddenly feized with " a species of apoplexy, occasion-" ed by the fcorching beams of " the fun, darted on the head, and " absorbed by the blackness of "the hat; to prevent which a " white covering for that feeins " requisite." If white hats cannot be admitted, soldiers should be directed to have the crown of their hats externally covered with thick white paper, and fastened by the common hat-bands. If walking and riding in the fun, or any kind of exposure to him, cannot be difpenfed

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penfed with, the greatest attention should be paid to the hints I have given. In riding or walking, the less motion excited the better; for in proportion to that, the fun's influence will affect.

NATURE, as if confcious of the effects of heat, has in the Weft-Indies generoufly provided the refreshing breeze and acescent fruit. Art has likewise contributed to the same purpose by the well-adapted house. Thomson beautifully expresses the sector of the sector of the sector.

Bear me, Pomona! to thy citron groves; To where the lemon and the piercing lime, With the deep orange glowing thro' the green, Their lighter glories blend. Lay me, reclin'd, Beneath the fpreading tamarind, that fhakes, Fann'd by the breeze, its fever-cooling fruit.

Deep die .

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Deep in the night the maffy locust sheds, Quench my hot limbs; or lead me thro' the

maze,

Embowering endlefs, of the Indian fig; Or thrown at gayer eafe on fome fair brow, Let me behold, by breezy murmurs cool'd, Broad o'er my head the verdant cedar wave, And high palmetos lift their graceful fhade; Or, ftretch'd amid thefe orchards of the fun, Give me to drain the cocoa's milky bowl, And from the palm to draw its frefhening

wine,

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More bounteous far than all the frantic juice

Which Bacchus pours. Nor on its slender twigs,

Low bending, be the full pomegranate fcorn'd;

Nor, creeping thro' the woods, the gelid race Of berries. Oft in humble flation dwells Unboaftful Worth, above fastidious Pomp: Witnefs, thou best anâna! thou, the pride Of vegetable life, beyond whate'er The poets imag'd in the Golden Age: Quick let mestrip thee of thy tusty coat, Spread thy ambrofial stores, and feast with Jove!

WHEN

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WHEN a head-ach, thirft, or any uneafy feeling, arifes from expofure to the fun, it may be generally removed by reft in the fhade; by abstaining from vinous and spirituous liquors; and by the free use of lemonade, cream of tartar and water, the juice of oranges, or cold infusions of tamarinds. If, however, any of these complaints continue more than twelve hours, gentle evacuation, if not effected by the preceding drinks, will be neceffary; and that may be procured by a small quantity of Glauber falt.

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# OF NIGHT AIR.

**B**Y night air I comprehend that diverfity of air which occupies the fpace from the fun's quitting the horizon to his return in the morning.

THE night air in every country is deemed prejudicial to health, and by the prudent always guarded againft. In elevated fituations; in abodes not infefted by marfhy exhalations; and where the atmofphere is generally temperate and ferene, fanned occafionally by cooling breezes, the night air is lefs hurtful and dangerous. But in ( 19 )

in countries like the West-Indies, where the heat of the fun is intense, where there are frequent falls of rain, and where unhealthy fituations appear, the nocturnal air is baneful, and ought to be fhunned. Dr. Monro, who was a long time at the head of the hofpital department in the army, obferves \*, " that nothing has been " found to be more productive of " difeases in warm climates than " exposure to the damps, especi-" ally lying on the ground after the " dews have fallen." A foldier's duty often exposes him unavoidably to all the extremes of the

\* Diseases of the Army, 2d edit. page 45.

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night;

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night; however, by an attention to a few precautions, any injurious effect may be in a great measure baffled. In all poffible cafes, foldiers on centinel or other fimilar duty fhould be fheltered by fome proper covering-a house, compact hut, tent, or the boxes commonly used. Every foldier on exposed duty ought to be provided with a watch-coat, which may be very eafily carried without obstructing his fervice; likewife, woollen flockings, whole gaters, and thick shoes, are infinitely more proper than the trowfers now injudicioufly in use: and I here prefer the thick waiftcoat and breeches to those made with nankeen and linen, ( 21 )

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linen, which are at prefent fubftituted. In the day-time a light drefs is comfortable and beneficial; but it is quite the reverse in nocturnal duty. Soldiers should be allowed to take with them a fmall quantity of spirit, and encouraged to fmoke or chew tobacco in every fituation of night duties. Soldiers ought to be strictly ordered not to reft or lie down on the damp ground. Men upon outposts, when no difadvantage to the fervice can attend, would feel not only pleafing fensations, but likewise falutary effects, from collecting wood and burning it, which warms, and corrects the furrounding atmofphere.

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In the morning and evening, especially in the winter months, we are sensible of a degree of cold exciting chilliness : this, however, is remarkably different from those fensations induced by a cold air in a northern climate. In the West-Indies, it produces languid and difagreeable emotions; in the other, cheerfulness and activity. These feelings point out the warm cloathing; but officers in general, not aware of the pernicious effects of an air of that kind, mount guard, or do any other duty which exposes them to the inclemency of the night, with the fame cloathing they wear when the fun is in his meridian. Instead of the whole gater recommended

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commended for foldiers on night duty, officers, as they have it in their power, should constantly use boots.

THE preceding observations are applicable to rainy periods, as I shall immediately explain.

### OF R.A I N.

THE rainy feafons have always proved the moft unhealthy, not only in the Weft-Indies, but in every part of the world. Experience has told us, that even these periods may be  $C_4$  rendered

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rendered less unsalutary, by an attention to our mode of living, cloathing, lodging, and fituation. Our living fhould be free and generous, without intemperance and irregularity. Our cloathing ought to be of that kind which is beft calculated to defend us from the rain, and beget a natural warmth which may prevent any difagreeable effect. Our house must not admit the rain, but be compact, warm, and dry; and its fituation must be out of reach of the noxious vapour of marshes, and of the air which passes through impenetrable woods. Part of what I have said, Dr. Armstrong elegantly comprehends in the following lines :

If the raw and oozy heaven offend : Correct the foil, and dry the fources up Of wat'ry exhalation.———

——At home with cheerful fires difpel The humid air ; and let your table fmoke With folid roaft, or bak'd, or what the herds Of tamer breed fupply.——

Generous your wine, the boaft of rip'ning years,

But frugal be your cups; the languid frame,

Vapid and funk from yesterday's debauch, Shrinks from the cold embrace of wat'ry heavens.

THE directions I have given on duty, under the article of Night Air, are here equally introduced and recommended. Soldiers when they are relieved, after being expofed to rain, fhould be ordered inftantly to their barracks or apartments, whatever they are, to fhift themfelves, and previous to going into

into bed to kindle fires either within or at the doors of their habitations; and during this they may take a glass of spirit, and indulge in fmoking or chewing tobacco. Dr. Monro fays, " that in wet " weather centinels, or men upon " outposts, should have a small " glass of pure spirit given them in " presence of the officer or serjeant " of the guard : fires in the rear " of the camp for men coming off " duty to warm and dry themfelves " at, were found to be of great fer-" vice." Mindererus recommends\*, " in wet, unwholefome " seasons, to make fires of wood

\* Medicina Militaris, chap. iv. English translation, page 23.

" before

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" before the tents, and to burn wetted gun-powder, to purify the air :" and he obferves, " that volleys of fhot made mornings and evenings in a camp, conduce very much to the difpelling of mift and qualifying raw air."

In the rainy feafons, and in the night, every duty fhould be difpenfed with that is not abfolutely neceffary, from the prefence or immediate apprehenfions of an enemy. By attention to this circumftance alone in the Weft-Indies, the lives of many foldiers may be prolonged, to the important fervices of their country. Of what confequence is an officer's character? He is intrufted with the lives of

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of numbers, and is anfwerable for them; if not oftenfibly to the public, to the natural feelings of humanity. What a field opens to the benevolent and generous ! A conftant opportunity is given for the liberal exercise of every tender suggestion. The man who faves one valuable life to his country, is a more respectable and worthy member of society than he who has destroyed any number of its enemies.

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### OF SITUATION.

**N** the choice of fituation of the spot on which we fix our refidence, though it be but temporary, principally depends the prefervation of health in the West-Indies. All countries have their unhealthy places, and thefe observation has shewn to proceed from marshes, stagnating water, and woods. The most unhealthy country has its healthy fituations : even the unfortunate Island of St. Lucia is not without them. But, as we have observed in another place, soldiers cannot always select the spots on which they may fix their their abode. When active operations are carrying on, either in defence or attack, it is impoffible that the healthy or fickly ftate of any fituation can be attended to, every confideration giving way to fecurity or fuccefs. The moment however in which we are free from danger, the health of the army becomes the principal object; and the first thing to be obferved, is the particular parts where foldiers are to be encamped or flationed.

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It will be unneceffary to prove that the neighbourhood of marfhes and thick woods is dangerous, it being evident to every one acquainted with the Weft-Indies : I fhall therefore content myfelf with fpecifyfpecifying the healthy places, and marking the most probable means of preventing the effects of a bad fituation, when neceffity admits of no other.

DR. LIND \* fays, " experi-" ence fully confirms this truth, " that in fuch elevated and tem-" perate fituations, where the " foil is dry and gravelly, and clear " from wood, fhrubs, or ftagnating " water, Europeans enjoy good " health in the hotteft climates, " during all the feafons of the " year."

\* Advice to Europeans in Hot Countries, page 219.



DR. MONRO  $\uparrow$  obferves, "that "the moft healthy fituations in "warm climates are those on "the fides of hills or mountains, "where the foil is dry, and clear "from woods and stagnating wa-"ter, and where there are no mo-"raffes within three miles."

THESE quotations fufficiently point out the places to be felected for the refidence of officers, and for the encampment of foldiers. I fhall only add, that the windward parts of an ifland, and those most exposed to a wind not intercepted by woods, or impregnated

+ Diseases of Soldiers, 2d edit. page 45.

with

with any thing from the land, are the most healthy fituations.

AFTER a healthy place is found, and officers and men are fixed, I fincerely advise them not to go even on a vifit, except obliged by the most positive duty, to an unhealthy spot. Dr. Lind mentions an instance of some officers whose usual refidence was on Monk's-hill, from fleeping a night or two in Englishharbour, Antigua, being attacked with a yellow fever on their return to that healthy eminence. More instances of this kind could be adduced, but the preceding one is fufficient; and I observe that this and all other fimilar cafes are applicable to Morne Fortune and the town of Carenage, St. Lucia. That

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That Island has proved fatal to many officers and men; and on, a close enquiry, we shall find the miffortune can with certainty be chiefly attributed to a wandering from a healthy fituation to one perfectly opposite. Officers may trace fickness and death from the time spent in the Carenage, which is a collection of houses furrounded by mortality. Officers who have attached themselves to their home, while they lament the imprudence of others, feel the heart-felt fatiffaction of a prudent conduct, and that good state of health which feldom fails to attend it. Here I remark, that the marsh surrounding one fide of the Carenage, might be drained by cutting canals, nals, &c.; and I think this is a fcheme which deferves the attention of a commander in chief.

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WHEN the necessity of fervice deprives us of choice, and compels us to fix upon the most unhealthy fituation, we are to make use of the means which are best calculated to prevent its unfalutary effects. When we are in the neighbourhood of marshes, and to leeward of them, we should have that fide of the house or hut which faces them shut up as close as possible, and the door and windows made in the opposite fide. If an officer has a marquee, the front of it should be placed from the marsh, and the back part towards it : the fame thing D 2

thing ought to be observed in the encampments of the men. In these fituations, wood fires between the marsh and the hut or tent, twice or thrice a-day, particularly in the morning and evening, and frequently made during the night, would be attended with advantage : fmoking or chewing tobacco is likewise found useful. An infufion of bark, fnakeroot, or any. bitter, in spirit, has been also recommended : a little of either by itself, or mixed with water, taken in the morning or when exposed in the night, may be used. If a bitter infusion cannot be procured for the men, a small quantity of common spirit should be given to them, under the inspection of an officer,

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officer, or of a trufty non-commiffioned officer. When guards are fixed on unhealthy fituations, each man should take, on mounting, a large dose of powdered bark in water with a little spirit; and this should be repeated when he is relieved. Every man coming from fuch fituations should be examined, and if he has the flightest head-ach or ficknefs, an emetic immediately given, and followed by two or three doses of bark, might prevent a ferious attack of the disease. By attending to these things, the furgeon's and officer's trouble will be amply rewarded. If the guard kept at the Carenage in St. Lucia was treated according to the preceding rules, the danger which at D 3 present

prefent attends that fervice would probably be obviated. Thefe remarks, which I have made on the means of preventing the bad effects of an unhealthy fituation, throw opportunities in the way of officers to fhew the care and regard they have for the men belonging to them. Soldiers, however inattentive, are not infenfible of kind offices; they will repay their officers by fidelity and conftancy in danger : at any rate, the pleafure of having merited them is impreffed.

I SHALL add the fentiments of Dr. Lind \* respecting the prevention of disease from unhealthy fituations.

\* Advice to Europeans in Hot Countries, pages 149, 151.

THE

"THE best preservative against " the mischievous impression of " a putrid fog, a swampy or " of a marshy exhalation, is a " close, sheltered, and covered " place; fuch as a house in " which there are no doors or " windows facing these swamps. " If, in such places, a fire be kept " either in the chambers, or at " the doors, or other inlets into a " house, (as is practised in some " unhealthy countries, during the " rainy or noifome foggy feafon) " these fires, together with the " imoke, prove an excellent and « effectual protection to those within against the injuries of a " bad air. Swampy forests emit " putrid D4

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" putrid vapours, which are apt to " produce an immediate ficknefs, " a vomiting, and afterwards a " low nervous fever. In fuch cir-" cumftances, a vomit taken im-" mediately, and a change into a " pure air, will often prevent a fit " of ficknefs."

#### ARMSTRONG fays :

His purer manfion nor contagious years Shall reach, nor deadly putrid airs annoy. But may no fogs, from lake or fenny plain, Involve my hill ! And wherefoe'er you build,

Dry be your house; but airy more than warm.

.On

#### ( 41 )

On the marfhy plains
Build not; nor reft too long thy wand'ring feet.
For on a ruftic throne of dewy turf,
With baneful fogs her aching temples bound,
Quartana there prefides.

Avoid the mournful plain
Where ofiers thrive, and trees that love the lake;
Where many lazy muddy rivers flow:
Nor for the wealth that all the Indies roll,
Fix near the marfhy margin of the main.

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#### Of EFFECTS peculiar to the WEST-INDIA CLIMATE.

S TRANGERS after their ar-rival in the Weft Indies are liable to some complaints which may be faid to be peculiar to the climate: and these do not feem to arife diffinctly from any one of the circumstances which I have already confidered; but they appear to proceed from a conjunction of some of them, or rather from fomething not well ascertained. Every person, however guarded and cautious even in those places deemed the most healthy, is subject to the complaints alluded to, and feldom or ever escapes an attack of them. They are, however, more troublefome than dangerous,

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rous, yielding always to a mild treatment, and I may fay never proving fatal, if early and judicioufly attended to.

HEADACH with fickness or loathing of food, a bitterish taste, coftiveness, and a high-coloured urine, are among the first things which affect Europeans. These foon go off by confinement, an abstinence from the usual diet and liquor, and a free use of lemonade, cream of tartar and water, or tamarind beverage. If they should continue after this twenty-four hours, gentle evacuations, &c. will be necessary; but here recourse must be had to the furgeon.

ERUPTIONS, as the prickly-head, and another kind generally taken for for musquetoe bites, are the constant attendants upon all new-comers.

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THE prickly-head is not altogether confined to strangers, it visits some of the natives annually: it is a mere external eruption, and not connected in itself with any other affection. It is a vulgar idea that it is a falutary appearance, and is thrown out from the blood ; it affects only the skin, and is produced, I think, principally by the action of heat upon it. What has given rise to its being amore serious thing, is the common observation, that when it disappears a headach, &c. attend. This is not always the cafe; and when it does happen, the headach and other complaints generally precede its difappeardifappearance, which is only produced by the intervention of an accidental difeafe, that diminifhes or contracts every exterior part. A variety of external applications are recommended, but I never faw one of them repay the trouble accompanying its ufe. A light cool drefs and patience are the only things I advife.

THE other kind of eruption, which is often taken for mulquetoe bites, requires more attention; for it is frequently accompanied with fever, generally with headach, which in many cafes is attended with an inflammation of the eyelids. This eruption commonly appears first on the legs and thighs, then on the arms, neck, and rent

face, resembling bumps of different magnitudes, from the fize of a pea to four times its bigness: they have an extensive base, and protrude above the skin, terminating in an apex or point. They itch exceedingly, and it is next to imposible to refrain from scratching, which is fure to make them bleed, and increase the inflammation and pain. They continue for fome days, then gradually difappear, and are fucceeded by a new fet; which is in many instances again repeated. If a headach and inflammation of the eyes, or any mark of fever attend, directions should not be trusted to, but medical affistance be called in. For the eruption itself, all that is necessary confifts in a moderate and light diet,

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diet, a plentiful use of lemonade or tamarind drink, which keeps the belly gently open, and in refraining from scratching as much as possible.

DR. HILLARY, who treats of the diseases of Barbadoes, takes notice of both these eruptions, and gives an accurate description of them. He observes, that they often appear at the fame time, by which every symptom is more troublesome. He condemns the use of external applications, particularly in the prickly-head, which he fuppofes may repel it, and produce dangerous effects. It is immaterial, in common directions, whether we fay external applications repel the prickly-head, and bring on more serious diseases; or that they are

are more troublesome than useful, therefore may be altogether laid aside.

I SHALL here introduce a method, which I am confident, if it was strictly followed, would be attended with the best effects, in preventing foldiers from being attacked with difease on their arrival in the West-Indies. I tried it on a detachment of the Artillery, confifting of twenty men, who came from England, after they were landed at Barbadoes; and I am certain, advantage was the confequence. The trial must, I allow, be carried further; and it may be extended to other fituations, which I shall point out. The method is not my own;

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it comes from respectable authorities, but it is not profecuted; at least, if it is or has been in the West Indies during this war, the practice must be partial, and not fo generally used or known as its importance merits. The whole bufiness is comprehended in giving the men a certain quantity of Peruvian bark once a day, and repeating it for a few more; then leaving it off two or three days; commencing again, and continuing it for three or four days longer; after which it is to be discontinued. Each man in this way is supposed to take about two ounces of the bark, which to a regiment confifting of fix hundred men will amount to feventy-five pounds weight. This quantity of E bark

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bark given in the manner I direct, will probably fave more than three times the weight.

THE Artillery men on whom I began this practice at Barbadoes, were paraded in the morning about eight o'clock; their number was twenty. I mixed in a veffel forty drachms, which is equal to five ounces of powdered bark, with four pints of common water, and half a pint of rum. Of this mixture, I gave out of my own hand to each man nearly one gill, whch disposed of the whole quantity. This was repeated at the fame hour for two or three mornings, then discontinued; renewed again in three or four days, and continued until each foldier had taken two ounces of bark, when it was entirely left off.

BEFORE

BEFORE I attempted this practice; the men began to complain daily of bilious affections; but after they had taken the bark, those complaints ceased, and the men continued in tolerable health, although they were unavoidably put upon fatigue in difembarking and arranging ordnance ftores. During the preceding exhibition of the bark, the greatest attention was given to regularity and cleanlinefs, and the men who had no complaint bathed in the fea every morning before the hour of parade. But of these I shall hereafter have occasion to make more particular mention.

IF the practice I have recommended was rigidly attended to in more unhealthy islands than Barbadoes, E 2 the the advantages would be more confpicuous, and fully repay any expence or trouble. It must appear at first view, that the medical character is not altogether the acting one, here; the officer holds a diftinguished part, and without his affistance very little can be done or expected. Soldiers do not confider themselves under the furgeon's direction until they are fick ; here only men in health are concerned; therefore the officer must interfere, and infpect the taking of the medicine. This is a duty of humanity in which all the generous feelings are interested ; the officer will therefore exert his influence. In the West-Indies we must go hand in hand; for to me it is fcarce a mat-

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a matter of doubt, whether the officer is not more concerned in the prevention of fickness among the foldiers, than the furgeon.

IT will be unneceffary for me to point out from what fource the bark is to be supplied, or to mark the particular modes which corps may adopt in giving it, these naturally occurring to those of whom it is required. I humbly folicit the attention of the commander in chief, the commanding officers of regiments, and the gentlemen at the head of the hospital department, to what I have taken upon me to recommend ; and I alfo beg a continuance of it, to the observations which immediately follow.

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As it is certain that fome of the islands in the West-Indies are more healthy than others, is it not to be prefumed that eminent advantages would accrue to the fervice, if soldiers, on their arrival in these countries, were stationed for fome time in the most healthy islands, before they were fent to those which are deemed more unhealthy? In the one fituation, they have only the effects which I have marked as peculiar to the Weft-India climate to encounter; in the other, they have these united with causes that never fail to produce dangerous diseases.

IMMEDIATELY after a man's arrival in the Weft-Indies, if he is placed on an unhealthy fpot, ( 55 )

spot, he is attacked with a bilious complaint, which in a healthy fituation would not be dangerous; but here it becomes fo, because it renders the body accesfible to the effects of the unhealthy fpot on which he is fixed. If this man on his arrival in the Weft-Indies was placed on a healthy fituation, he would probably have an attack of bilious complaint, but fuch a one as would foon leave him. After this, 'tis fix to one if a removal to an unhealthy fituation would produce another vifit of the bilious complaint; for which reafon he will not be fo liable to be affected by the causes of difease that furround him. However, I by no means advance, that fuch a man will not have a dangerous dif-E 4 eafe

ease in the unhealthy fituation ; I only infer, that the probability on the other fide is in his favour.

FROM what I have faid I wish to convey this observation, that all regiments or detachments of men from Europe, on their arrival in the West-India Caribbee Islands, should be stationed in Barbadoes or Antigua until they are habituated to the nature of the climate; then they may be sent to more unfavourable fituations, being previously relieved by a fimilar fet from England, or by men from that place to which they are deftined. By this ftep two purposes are answered : Men have a fairer chance of resisting the diseases in the West-Indies

Indies; and men who have been fome time in an unhealthy fituation, and very likely nearly wornout by difeafe, are relieved, and have a profpect of once more enjoying tolerable good health.

# Of LODGING.

I HAVE already observed the bad effects of the West-India climate under the circumstances of the sun's influence, night air, rain, and unhealthy situations, which sufficiently point out the kind of lodging most suitable to prevent them.

them. I shall therefore only further observe, that after a choice of fituation, it ought to be the next object with the commanding officer, to see that his inferior officers and men are comfortably sheltered in cool and dry lodgings. Here I might fummon the attention to prove the prejudicial confequences which follow a leaky roof, and a damp floor; but it will be quite enough to found the fatal name "St. Lucia !" It is impossible to direct our eyes towards that unfortunate island, without lamenting the fate of many valuable lives, which have fallen facrifices to an ill-concerted æconomy, or fome other mistaken system. Well may we

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we at this day adopt the language of Armstrong—

Albion's — — — bravest fons, keen for the fight, have dy'd The death of cowards and of common men; Sunk void of wounds, and fall'n without renown.

AFTER comfortable and wellplaced lodgings are provided, the next thing which occurs is the management and behaviour of foldiers in them. Soldiers are apt to lounge and loiter in their barracks, which never fhould be permitted, as indolence is not only prejudicial in itfelf to health, but more fo by begetting dirtinefs and filth. Certain regulations fhould be adopted, to keep, on pain of punifhpunishment, the lodgings clean and dry, and free from incumbrances. If poffible, nothing ought to be admitted within the barrack but what is abfolutely neceffary : all fpare cloathing and accoutrements fhould be fome other way difpofed of. A foldier may be allowed to eat his victuals there ; but after doing this, the place ought to be carefully fwept, and the utenfils of the mess quickly cleaned and put away. Washing the face and hands and linen, combing the hair, brushing cloaths, cleaning belts and firelocks, are to be forbidden, except in circumstances where it is impoffible to avoid doing these things within the barrack; and then double care should be bestowed in fweeping,

fweeping, and preventing a retention of moisture. The bedding, of whatever kind, must be aired every dry day; and if it confifts of any thing that can be washed, it ought to be washed once or twice a week. Any difficulty of having these things strictly performed, lies only in appearance; on trial, it immediately vanishes, depending entirely on orders being given and obeyed, which every officer can always accomplish. I have purpofely omitted faying any thing about neceffary-houses, the propriety of having them in the rear of lodging or encampment, and of keeping them clean, being obvious to all.

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# OF DRESS.

CLEANLINESS is not only pleafing, but comfortable; it is falutary and beneficial. A foldier cannot be too rigidly attended to in point of drefs; for the one who is conftantly neat and clean, is neither indolent or lazy; two things which I have observed are prejudicial to health. In the Army, every thing ought to be done by rule. At an allotted period, foldiers should comb their hair, wash themselves, and put on their cloaths; and thefe are to be performed under the infpection of noncommissioned officers; and if they requiré

require notice, this is a duty not beneath a more elevated character. In the day-time foldiers may be indulged in the choice of what kind of waistcoats, breeches, trowfers, and ftockings, they will wear ; but in night duty, or in cafes of exposure to rain, they should be only permitted to wear the regimental waistcoat, breeches, and ftockings. No material inconvenience can arife from the change of drefs which here takes place. Dr. Monro fays, " Soldiers should be " obliged to keep themfelves neat " and clean; to comb their hair, " and change their linen often; " and if the camp be near the fea " or a large river, they ought to " bathe themselves early in the " morning,

" morning, as the fervice will " permit."

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BATHING in cold water in the Weft-Indies being followed by cheerfulness and activity, becomes very necessary, befides its being conducive to cleanlinefs. Officers in any fituation can have almost every advantage to be derived from plunging in the fea, by having two or three pailfuls of cold water thrown over them by a fervant early in the morning ; or if conveniency will allow, the fhore bath may be adopted. Soldiers ought not to have a diferentionary power to bathe, because they are liable to abuse it, either by chusing an improper time, or being in a state in

in which it may prove hurtful. If regiments or detachments were paraded at a selected hour, and marched off to bathe under the direction of officers, those men whom the furgeon judged to be improper fubjects being previoufly excluded, then the good effects of bathing, without its inconveniences, might be expected. The detachment of Artillery formerly mentioned as having bathed while they were using bark, immediately after their arrival at Barbadoes, went into the fea two hours before the morning parade; which made the hour of bathing to be about fix o'clock, the period I judge most proper.

THE circumstances which render bathing improper, are in-F disposition

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disposition of any kind, except arising from weakness, (but here the surgeon interferes, and must determine) headach, and the prefence of eruptions.

Some doubt arifes whether the prickly-heat makes bathing dangerous. I have already faid, that I confider the prickly-heat to be a mere affection of the skin, unconnected with any other bodily indifposition; therefore, I can see no injury arising from bathing with it. I have known many bathe with the prickly-heat, and never faw any inconvenience arife, except its becoming more plentiful and troublesome. However, bathing with the prickly-heat is ferioufly condemned by many medical gentlemen in the Weft-

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Weft-Indies; Drs. Hillary and Monro forbid it; therefore, I would by no means particularly recommend or advife it. One criterion may guide us—that if we bathe with the prickly-heat, and find it followed by any thing difagreeable, we can defift; but if it is fucceeded by only an increase of the eruption without any complaint, I think we may fafely continue.

IN this place I cannot omit acknowledging, befides what I have elfewhere declared, and which I must always repeat from the constant occasion given, the attention of Major WILLIAMSON, command-F 2 ing ing the Artillery in the Weft-Indies.—Ever ready to direct what is neceffary, and to comply with what is pointed out for the advantage of his men, he has become the father of the foldier, and the valuable officer of his country.

WHILST I do juffice to this character, it is impossible to refrain from paying a like tribute to Col. CUYLER, who commands the 55th regiment. This regiment, for management and discipline, gives the model which every other corps should imitate. The conduct of soldiers in barracks, in point of drefs and regularity, and the mode of bathing, are here inculcated to us by an invariable practice; and the practice

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tice has been repaid by a fuperior degree of healthiness. From this I by no means infer, that all other regiments are inattentive to regularity and discipline; I am perfuaded of the contrary : however, I do not hesitate to fay, that more attention might be paid to them in every corps in the fervice.

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#### OF DIET.

THE diet of officers may be conducted by the following line —

Live well, and live regularly.

Living well and living regularly are far from being incompatible. A tafty and nourifhing diet, even a generous allowance of wine, may not only be ufed, but are abfolutely neceffary to anfwer the purpofes of health \*. The moment,

\* Dr. Wind, in his notes to a translation of Dr. Lind's Effay on the Difeases incidental to Europeans in Hot Countries, observes, that at Middleburgh, the capital of ment, however, we go beyond the cheerful glafs, that inftant we expofe ourfelves to every caufe capable of producing difeafe.

FROM a comparative view of the different degrees of health and fickness among those who have lived in conformity to the maxim stated, and in a manner diametrically op-

of West Zealand, in the month of August, after the rains which happen in July, intermitting fevers prevail: he fays, fuch as live well, drink wine, and have warm cloathing and good lodgings during the fickly feason, do not fuffer fo much as the poor people. Dr. Knox told Dr. Monro, that last war, in the Guadaloupe expedition, he observed that those who had opportunities of drinking Madeira and claret, and used those liquors in moderation, were less liable to dysenteries and bilious fevers than others.

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pofite, the beneficial confequences of the one and the pernicious tendency of the other are well afcertained. A vigorous and active conftitution has the greateft probable chance of refifting the caufes of difeafe, in any poffible fituation; therefore, whatever gives and fecures that conftitution, is beft calculated to preferve health.

A REGULAR and temperate mode of life, a comfortable lodging, a cheerful flate of mind, and a generous diet without the finalleft degree of excefs, conflitute the effential parts of the fyftem which feems to me beft adapted to fecure health in the Weft-Indies. This will appear more juft, by a review of the effects of a different manner of life. Excess

Excess of any kind, but more particularly of drinking, produces a certain disposition of the body favourable to the operation of the causes of disease which I have pointed out, and against which I have endeavoured to put you on your guard, viz. the fun's influence, night air, and unhealthy fituations. These causes feldom act alone ; they are generally conjoined, and affift one another; and they require a certain state of the constitution, before they can produce any severe or fatal effect. This conftitution is a relaxed and weakened deviation from the natural state, and is always attended with a lowness of spirits, particularly when it is induced by intemperance

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perance and irregularity. Thefe are truths well known to thofe who indulge in exceffes of that kind; for they are conftantly the morning vifitors after a debauch. A perfon with thefe morning feelings, if expofed to rain, or to the vapour of marfhes, it is exceedingly probable will be attacked with a fatal fever. To make thefe obfervations more convincing, I fhall infert the fentiments of men always credited.

DR. LIND fays\*, "that excef-"five drinking, and every fpecies "of intemperance, difpofe the

\* Advice to Europeans, page 8.

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se constitution, more especially in " hot climates, to the attack of the " epidemic diseases of the coun-"try." In another place \* he observes, "that in an air noxious " from marshes, or in the unheal-"thy feason, any debauch or " drunkenness will often give a " fever, which in lefs than forty-" eight hours will terminate in "the death of the patient. Ex-" ceffes either in eating or drinking, " in hot countries, are extremely " prejudicial to the conftitution."

DR. MONRO + is of opinion, "that nothing has been found to

\* Advice to Europeans, pages 186 and 187.

ce be

+ Diseases of Soldiers, page 45.

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" be more productive of difeafes " in warm climates, than indulg-" ing freely in the ufe of fpirits and " other ftrong fermented liquors." Hence he recommends temperance in drinking, and particularly condemns the too liberal ufe of wine. But

We curfe not wine ; the vile excefs we blame, More fruitful than th' accumulated board, Of pain and mifery.—— ARMSTRONG,

EVEN although confeious of the impropriety of intemperance, it will happen fometimes that the most vigilant will be furprifed into it; for when we chance to fall into a friendly and focial circle, animated by the mirth and good-humour mour which reign around us, we are apt to forget usual restraints, and pafs imperceptibly beyond the limited glass. In cases of this kind, when headach and dejection of mind are the consequences, and continue longer than usual, with the accession of other marks of indisposition, it may with great probability be suspected, that a disease is forming, from a co-operation of the causes of disease I have formerly enumerated ; therefore, the furgeon should be immediately confulted; and if any delay occurs from distance or otherwise, an emetic of ipecacuanha will be proper, which all gentlemen on separate duty ought to have in possession : for diseases in this country are often prevented by an early exhibition

hibition of a medicine of this nature, and a fuitable reftriction in point of diet.

It is a good rule, to take the morning fucceeding a debauch, two tea-fpoonfuls of powdered bark in water, which may be repeated once or twice in the courfe of the day; but this is only to be done when there is little headach, or apparent reafon to think neither that or any other uneafy feeling will continue.

ICANNOT omit here condemning, as big with the most ferious confequences, the idea of keeping off a difease by launching into an extreme of excess, particularly in the article of drink. If this conduct duct does not anfwer the intended purpofe, the uneafy feelings which induced it increafe, and form difeafe; and this difeafe, inftead of being of a milder kind, will undoubtedly prove of a more dangerous nature than it otherwife would have affumed : whereas, if a fuitable reftriction is made, the difeafe may be either prevented from forming, or, when formed, have its ufual feverity abated.

THESE obfervations refpecting intemperance and irregularity are applicable to foldiers, indeed more fo than to officers; for having lefs variety of diet, no choice but a devoted ration, they are more expofed to the confequences. Befides, foldiers probaby have a more more indifferent and lefs comfortable lodging, and from duty and other circumftances are more liable to fuffer from the inclemency of weather, or unhealthinefs of fituation. From all these confiderations they ought to be particularly reftrained from indulging in exceffes of any kind.

The effects of too great a quantityof wine are lefs hurtful than of rum : the latter, befides the general bad confequences of drunkennefs, acts in a moft injurious manner on the delicate fibres of the ftomach and bowels. I knew a young man of the Artillery at St. Lucia, of a gay and lively difpofition, who joined in the practice of drinking a little pure rum in the morning : this he continued, continued, increasing the quantity, until he was carried off by fever and loofeness. On diffection; his stomach was found ulcerated, and otherwise very fingularly diseased.

Rum I conceive to be a very ufeful article in a soldier's allowance, particularly in the Weft-Indies; but he ought never on ordinary occasions to drink it unmixed. If men cannot be trusted, their rum should be served out, diluted with four or five times its proportion of water, according to the ftrength of the fpirit. With respect to the quality of rum, the older it is the better; for in its new state it contains an acrid corroding principle, which in time evaporates and altogether disappears. This is evident

dent on examining the different ages of fpirit : the new has a pungent fmell, and a sharp disagreeable taste ; the old has a pleasing aromatic flavour, and a mild oleaginous tafte. The rum supplied to the army, from what cause I do not determine, is generally of the most indifferent quality. Commanding officers can condemn injured provisions; may not they equally set aside rum of a very new and bad quality? Government gives every care to its foldiers, and grants every indulgence to them; but by fome fatality or other, its intentions are too often prostituted.

SOLDIERS have methods of procuring rum, above what their ordinary allowance (which is perfectly fufficient) fufficient) entitles them to. Thefe practices can be nearly removed by a regular and well-conducted meffing: this attended to in one regiment, would give it a very great fuperiority over any other, and would be the beft means of enfuring fobriety, decency, and health.

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SOLDIERS, as it is the military practice, though not always ftrictly followed, fhould be divided into meffes, each under the direction of a noncommiftioned officer, or a felected private man, and the whole infpected by a commiffioned officer. Dinner is the principal meal; therefore, the chief attention is to be beftowed on it. All men not on guard ought to have a ftated hour, at which time the officer fhould go the G 2 round, round, and fee that every body is at dinner, and that the whole of the victuals are dreffed and wellcooked. Those men who are on guard should have, if possible, their dinner sent to them, from the respective meffes to which they belong. At first view this is a troublesome duty, but it is a standing order in the army, and may be executed in a few minutes. By this mode an effectual stop is put to the sale of provisions, too often practifed, and which procures the baneful spirit.

THE articles that foldiers generally difpose of are the finall species, as pease, oatmeal, or rice, which are very effential things in a ration; they are vegetable preparations, and are the best best affistants with the bread to make the falt provision nourishing, and prevent any of its effects on the conftitution which may otherwife follow. Would not an allowance of a small quantity of vinegar to each mefs, particularly in the West-Indies, be useful? If a foldier is permitted to fell or exchange any part of his provisions, it should be with the confent of the person who directs the mess to which he belongs; and even then it ought to be only for vegetables, fish, or any thing fresh.

WHAT a pleafure it must give to an officer, to have prefented to him fo many occasions of being ferviceable to men who are too apt  $G_3$  to to neglect themfelves ! The fine feelings and views of a gentleman, the benevolence and generofity which hold the first places in his character, the extensive liberality of fentiment, and the perfect knowledge of human nature, acquired by the best education, are all suppoled to center in a British officer, He requires them all, and he will find in the performance of his duty constant opportunities of exerting them.

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#### OF EMPLOYMENT.

THE employment of officers, except in matters of duty, falls under their own direction; therefore they have it often in their power to regulate their actions, as far as these are concerned in the prefervation of their health. The first thing which I point out to them is,

" To go to bed early, and rife early."

By a ftrict attendance to this rule, feveral of the caufes of difeafe which I have marked are avoided. Befides, a principal intention of nature is fulfilled, by giving the G 4 proper

proper relaxation to our powers of action, which would otherwife be too much fatigued, and in time rendered defective in performing their ordinary motions. This is the chief reason late hours are improper, even though not accompanied with intemperance ; for whatever weakens or leffens the vigour of either body or mind is prejudicial, because it makes it more liable to be affected with other caufes of difease. An officer on duty cannot attend to the preceding injunction; but unlefs that is more fevere. than usual in the West-Indies, he can comply with it three nights out of four; and by doing fo he is better enabled to refift any inclemency of night duty, when it does occur.

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ALL kinds of exercife are peculiarly neceffary in the West-Indies; however, it is fo unfortunate, that we have it but very feldom in our power to felect the most useful kind, or even to have an opportunity of using any. The mornings and evenings are the fittest periods, and they give only a finall proportion of time. Riding and walking are the two modes of exercise those countries afford, and they can be used only with propriety in the periods I have marked. Bathing in cold water, if duly profecuted, greatly supplies the place of exercife :

It is the purest exercise of health, The kind refresher of the summer heats. THOMSON.

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But of that I have already taken notice, under the article of Drefs.

As the greatest part of a West-India day must be spent in the house, every thing should be exerted to engage the attention of the mind, and maintain a rational gaiety and cheerfulnefs. Here an officer enjoys the fruits of a good education. If there is nothing around to afford him entertainment, he can take an inward furvey, and find the most fatisfactory amusement in the contemplation of himself, of his views and intentions. Books are naturally pointed out, but a selection is not always to be met with ; for being a heavy part of baggage, they are feldom carried.

carried. If a fmall and well-chofen library was procured in each regiment, by the fubfcription of its officers, and put under the quarter-mafter's care, with the ftores of the regiment, every officer would be fupplied with books, and without any trouble or incumbrance; by which fatisfaction and pleafure might be always at hand.

Ir may be faid, that the frequent changing of officers in a regiment, makes fuch a fcheme impracticable. Not at all; for it is only paying (by the perfon who keeps the accounts of the library, and whom I fuppofe to be either the paymafter or quarter-mafter) an officer on his leaving the regiment the money he fubferibed, and getting the fame

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fame fum from the perfon who fucceeds to his place. Befides the original fubfcription, there fhould be a fmall annual fum to repair the library and procure new books,

IN fuch confined fcenes as the Weft-Indies exhibit, how enviable are the feelings of an agreeable acquaintance, and of friendship!

#### Among these we are to expect

The full free converse of the friendly heart, Improving and improvd'.

> THOMSON. SOLDIERS

Soldiers never should be exposed, except on unavoidable duty, to the fun, or to fatigue during his foorching heat. The hours of parade, of manual exercise, and of relieving and mounting guard, ought always to be those in which the fun has the least influence. About sunset I take to be the best time for relieving guards, for this reason; the men mount refreshed, after the repose of a day, and will from that be watchful and alert in the night : whereas they who enter upon the duty in the morning, are fatigued upon the approach of night; therefore are apt to flumber and be careles; by which the fervice is not only endangered, but the men are more liable

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liable to fuffer from night ait, or unhealthy fituations. Befides, the men relieved in the evening, have the advantages of a natural night's reft to fit them for the duties of another day, whilft the other men are under the neceffity of fleeping in the day, which never affords equal refrefhment. I mean here those guards which are only relieved once in twenty-four hours.

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IF from the circumftances of fervice, foldiers are required to carry their provisions to any diftance; or if they are under the neceffity of repairing roads, of building huts, working at batteries, or of undergoing any fatigue whatever; the cool hours of the day fhould be chofen. From From what I have feen, and collected from the obfervation of others, I am confident that foldiers might be excufed from any of thefe fevere duties which I have fpecified. Where the country does not give negroes or labourers for fuch purpofes, it is the intereft of Government to fupply them.

HERE again I will mention St. Lucia. I am convinced that the fatigues imposed on the foldiers in that island, have proved more destructive to them than its natural evils; for these alone could not have produced such general fatality, if they had not been affisted by the effects of the horrid fervices in which the men have been employed.

DR.

DR. LIND\*, after giving fome inftances of the fatality attending the employment of Europeans in hot countries in laborious work, particularly that of cutting down wood, &c: fubjoins the following very firiking obfervation, which I here beg leave to adopt: "It ' does not feem confiftent with ' British humanity, to affign fuch ' employments to a regiment of ' gallant foldiers, or to a company ' of brave feamen."

WHEN the commander in chief; and all other commanding officers, give the proper attention to the

\* Advice to Europeans, page 145.

represen-

reprefentations of the director of the hofpitals, phyfician and furgeons of the army, although they may be only founded upon probability : then, and not till then, every advantage tending to the prefervation of the health of fol diers in the Weft-Indies may be expected.

H

### OBSERVATIONS

#### ON THE

#### MEANS of RESTORING HEALTH

#### IN THE

WEST-INDIES.

**F**ROM difeafes in the Weft-Indies the recovery is often very tedious and uncertain : this, however, fometimes arifes from neglect and inattention. When a patient is pronounced free from danger, he is too apt to fhake off those little reftraints which are abfolutely neceffary to secure a re-H 2 covery

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covery and prevent a relapfe. I have frequently had occafion to lament the injudicious and carelefs conduct of many, even although repeatedly warned of the confequences. I have feen men on the recovery—I have feen them relapfe, and fall facrifices to imprudence and folly.

AFTER the termination of a difeafe, there is a great deal remaining to effectuate a perfect reftoration of health. Every difeafe leaves a debilitated, weakened, or relaxed ftate of the conftitution; and if this is not removed by the natural and artificial efforts for that purpofe, a dropfical, pectoral, or fome other complaint, if not a relapfe relapfe into the former difeafe, will certainly follow. The artificial efforts in reftoring a weakened conftitution, receive but a trifling aid from the province of medicine; they confift chiefly in perfonal attention to good nurfing, activity, and cheerfulnefs, but, above all, to a change of air.

It will be unneceffary to adduce inftances in fupport of thefe obfervations, as perfons recovering from difeafe are perfuaded of the truth of them, but want fortitude and refolution to comply. However, I flatter myfelf, by pointing out the fteps to be taken in the ftages of recovery for the re-eftablifhment of health, mark-H 3 ing

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ing occafionally the difadvantages of a different fyftem, that every one will allow the attention and compliance he may feel himfelf interefted to give. What I have to recommend will be comprehended under the following articles—Change of Air, Diet, Drefs, and Employment; to which I fhall fubjoin a few rules of conduct from Dr. TISSOT'S ingenious "Advice to the People."

BUT before I proceed further, I muft again excite the feelings of officers, by declaring, that even in the recovery of health, as well as in the prefervation of it, foldiers have a great deal to expect from their care and affiftance. 2 The The measures of the furgeon must be countenanced and enforced; and whatever is wanted and recommended should, if possible, be granted. When men are difcharged from the hospital, it cannot be fupposed that they are entirely reftored to their natural ftrength : That remains to be perfected by a regulated proportion of ufual exercife and employment; and here they must trust to the knowledge and humanity of their officers. In circumstances of this kind, the generous and benevolent will always give every allowance; will procure neceffary indulgencies; and in all poffible cafes will find out, and endeavour to obtain, a change of fituation.

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WHERE officers have it in their power to be of use to foldiers in the periods of recovery, will be ascertained in the course of the fucceeding observations. I can here frame in my own mind a part of that satisfaction and pleasure which officers will receive, in knowing that there are other occafions besides those an enemy gives, of displaying a wish to promote the interests of their country.

#### CHANGE

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### CHANGE of AIR.

THE advantages of a change, particularly from unhealthy fituations to others of a superior degree of healthinefs, are not confined, but arise and are evident in all countries. While a disease exists, good effects are often derived from a change of fituation, even although confidered in only an equal degree of health from that which has been forfaken. These good effects are more certain, if the disease has been produced by causes peculiar to the fituation-fuch as the vapour of marshes : in this case, every advantage

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vantage may be expected from a change to a fituation where these causes do not appear.

As I do not mean to extend my observations to the effects of a change of air in the removal of diseases, I shall go no further in the preceding explanation, but proceed to confider its effects on patients recovering from difease. However, I may previoufly remark, that if a change of air can produce the best effects, in certain circumstances, on patients labouring under a disease; it is reasonable to expect equal and more permanent effects from it, in those cases of which I am to treat.

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In what manner a change of air, even to an air of no fenfible difference, acts in promoting a restoration of health, will be unnecessary to investigate. Indeed, it would prove a subject infinitely above the reach of any exertion 1 could give it : besides, it is only of importance to afcertain by facts, how far the falutary effects of a change of air are to be depended upon, and in what cases these effects will be most probably produced ; I shall therefore confine myself entirely to this latter enquiry.

THE good effects of a change of air on perfons recovering from difeafe,

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difease, are amply proved in those patients who remove from St. Lucia and Tobago to Barbadoes. I have seen repeated instances of persons with quotidian, even remittent fevers, and many others, who have been fo much debilitated as to make their landing attended with danger, recover beyond conception, and regain almost an European degree of health : and, what may appear fingular, I know cafes where even a change from Barbadoes to St. Lucia, has been followed by recovery and reftoration of health.

WHEN every change of air which the Weft-Indies can afford has been unfuccefsfully tried, a trip to the continent of America, or, what is preferable, to Europe, Europe, has in feveral inftances effectuated a recovery; whilft a continuance in the Weft-Indies, in all probability, would have proved fatal.

MORE limited changes of air than either of those I have specified, have often been followed by advantage. Perfons who are attacked with difeases in the Carenage at St. Lucia, or in any fituation near it, find benefit from removing to fituations about Souffrier, and to windward of it, and about Gros Islet. The 46th regiment lay for a confiderable time on board of transports in Carenage bay, and became very fickly; but on removing to Gross Islet bay, the fickness decreased, and the fick men gradually got better. The crews

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crews of the Ajax and Vigilant line-of-battle fhips likewife were exceedingly fickly in Carenagebay; but on removing to Grofs Iflet bay the ficknefs abated, and the men very foon recruited.

AT Barbadoes, the inhabitants of Bridgetown, on recovery from difeafe, find it their intereft to go into the country; particularly that part of it called Scotland, which is a hilly ground, has its air chiefly from the fea, and is fanned by a conftant wind. In Antigua the inhabitants alfo recover much fooner, by changing their fituation into more elevated and expofed ones.

In those changes of air, as from St. Lucia to Barbadoes, a great deal is attributed to the paffage. The happy effects which generally accompany the fea-air, or the agitation of the veffel, have long been demonstrated; and I readily grant that the paffage, though fhort from one island in the West-Indies to another, may have a confiderable fhare in the recovery which is afterwards perfected. I was very fenfible myself of the benefit of a voyage, after my leaving St. Lucia, in the month of July 1779. Befides my own cafe of a bad state of health, I had with me about twenty Artillery-men, flowly recovering from difease. From St. Lucia we passed by St. Vincent, lay one day off Grenada, then fteered

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fteered for St. Chriftopher, which, until our arrival at that island, took up about fourteen days: during the paffage, the weather was clear, and we generally had a good breeze of wind. Before we landed at St. Chriftopher, I perceived the happy effects of the voyage, and we were all in a short period reftored to very good health.

As the good effects of a change of air, and of a fea-voyage, are placed beyond a doubt, they fhould in all poffible cafes be attempted. If a difeafe is formed by caufes peculiar to any fituation, a removal from it ought to take place immediately, without regarding the ftate of the difeafe, or the period of recovery.

DR.

DR. LIND fays \*, that " pre-" fervation and certain recovery " depend upon an immediate " change of air, when feized with " the prevailing fickness of the " country." He goes on : " I affert " it as a certain truth, which I " have had the most ample means " of knowing, that perfons labour-"ing under fevers, fluxes, and " other diseases, may with great " fafety be moved from one place " to another; nay more, that by a " removal of them with proper " care, from an impure to a pure " air, such patients received imme-" diate benefit. Remove them " from the main cause, and per-

\* Advice to Europeans, page 179 and 180.

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"haps the only fource of their fickness; that is, from the land air".

In unhealthy iflands, the Army would derive many advantages from being provided with places fixed in the most healthy fituations, when the necessity of fervice obliged it to occupy those parts, perhaps the most unhealthy. If a provision of this fort was made, which with very little trouble might in almost every cafe be done, the fick would be removed, and have a better chance; at any rate, places for convalescents should always be felected. In fuch an ifland as St. Lucia, which has a variety of bays, of different degrees of healthinefs, and feldom deftitute

tute of Government transports; it would prove a step of the highest utility, to have some of those ships fitted up and stationed in the healthiest bay, which we suppose to be that of Gross Islet, for the reception of the sick of the army; at least, of its convalescents.

IN a former place I mentioned the probable good confequences which would accrue from placing men, immediately after their arrival from Europe, in the moft healthy iflands, before they were fent to those deemed very unhealthy; and I here repeat it, because it gives a body of men impaired by difease an opportunity of being relieved, and removed to a more I 2 healthy

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healthy fituation, by which they will enjoy the effects to be expected from a voyage, and a change of air.

OFFICERS who can obtain leave to go from one island to another, should delay no time, but immediately adopt a change of air. There are many cafes where officers by delay have fuffered, and there are many cafes where they have narrowly escaped death. In the presence of fever, if its nature and the want of conveyance will not allow a change of air, the earliest opportunity after should be embraced. An officer ought not to be refused leave to remove to any proper place for the recovery of

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of his health. The commanding officer who objects, from any pretence whatever, is truly chargeable with every confequence. An officer during fickness cannot do his duty; give him then every chance to recover, and he returns with cheerfulness and gratitude. If, however, he is detained, and unfortunately dies; the man who was the cause of it, has many heart-felt reflections to encounter. I have reason to believe these confiderations to be rather impertinent, for I speak of a British commander : however, the concern I feel in the diftant thought that it is poffible a refusal might be given, is the only apology I offer.

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An officer, when he obtains permission to change his situation for the recovery of his health, ought, if it is confined to the fame island, to felect that place effeemed the most healthy by the inhabitants; and this may be determined alfo from those circumstances marked in the Observations on the Preservation of Health under the article of Situation. If the leave extends to a removal to another island, as from St. Lucia to Barbadoes, the most healthy fituations of the latter should be likewise undoubtedly selected; but it often happens that patients are contented with the mere change to that island, and fix themselves in Bridge-town, the most unhealthy part of it.

Persons

PERSONS very much debilitated by difease must be cautious of chufing too elevated and exposed a fituation, where the air may be piercing and cold. In this cafe, the sheltered situation open to the fouth is the most commendable; and as recovery advances, a keen air may be less guarded against. Every degree of air should be gradually received, until the conftitution is enabled to feel with advantage and fafety the most penetrating state of it which the West-Indies afford.

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It has been often found, that all the changes of air obtainable in any part of the Weft-Indies, have proved ineffectual in procuring a re-eftablifhment of health. I 4 Experi-

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Experience, as we have already observed, has demonstrated, that a return to Europe has completed the recovery, which had baffled the most falutary influence of those countries. Officers therefore, after a fruitless trial of removing from one neighbouring place to another, should make a more diftant change, and have leave of absence to return to their native fhore; and it would not be incompatible with the fervice to extend this leave to the foldier. Soldiers who continue long in a convalescent or recovering state, contract pectoral complaints, swellings of the legs, &c.: thefe, however, may be the causes of an uncertain

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uncertain and tedious recovery, as well as the confequences of it. In any of thefe cafes, there is very little probability of a cure being effected in the Weft-Indies; the only chance is in a return to Europe, which I think may be accomplifhed with eafe, and without the fmalleft detriment to the fervice; on the contrary, the moft certain advantages would refult from it.

A REGIMENT may have permiffion to fend once a year thofe men who are deemed by the furgeon irrecoverable in the Weft-Indies to England; not as invalids or garrifon men, but as men who may recover and return to their Corps

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corps, or be drafted into other regiments, as circumftances may point out. By this method many men would be annually faved, and the ftrength of each regiment be better afcertained.

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THERE are regiments which return from five to fix hundred men, and out of that number more than one hundred are probably marked Convalefeent, Confumptive, or Sore Legs; and in this cafe the regiment is defective in that number in ftrength, befides the incumbrance given in cafe of fervice : whereas, by fending thefe men home, the regiment ftands the chance of receiving drafts or recruits from England; by which means it would be

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be always really ftrong, inftead of being nominally fo; and a number of brave men would be faved, and reftored to the fervice of their country. Sore legs in the Weft-Indies, in whatever manner they may be produced, are very troublefome, baffling every effort that can be made to heal them; and the hope of their cure can be built only on the return of the patient to Europe.

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other couprisints fither vehe. The

DIET.

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#### DIET.

YEXT to a change of air, a great deal may be expected, and certainly obtained, in effecting recovery, from a proper attention to what is comprehended under the article of Diet. On recovery, the appetite becomes keen, and not to be very eafily fatisfied ; and if this is indulged, which is frequently the cafe, the recovery is retarded, and probably a particular weak flate of the flomach with other complaints supervene. The fmalleft degree of excels in eating, drinking, or in any other thing, is always accompanied with the moft

most eminent risque of producing a relapse, or laying the foundation of chronic diseases; it therefore requires a constant perseverance in a regulated diet, and a forbearance from every irregularity, to ensure the restoration of health.

#### While the vital fire

Burns feebly, heap not the green fuel on; But prudently foment the wandering fpark With what the fooneft feels its kindled touch:

Be frugal even of that; a little give At first; that kindled, add a little more; Till, by deliberate nourishing, the flame Reviv'd with all its wonted vigour glows. ARMSTRONG.

In the periods of recovery, those articles of diet of the most easy digestion, and which afford the best nourishment, should be selected.

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felected. Even these are to be taken in fmall quantities; and it ought to be an invariable rule never to take a full meal, but always to defift from eating before the appetite is fatiated. In the first dawn of recovery, the diet should confist of liquids or spoon-meats, as broths, preparations of milk, &c. taken in fmall proportions, and frequently repeated. As recovery advances, those folids the nearest, with respect to digestion, to spoon-meats, may be used ; as jellies of the vegetable and animal kinds, young animal meat, and fome species of fish. From these we go forward gradually, using substances more solid, and of less easy digestion, until we arrive

at

at our ordinary quantity and kind of food, when recovery is perfectly effected.

I saw a gentleman at Barbadoes who came from St. Lucia for the recovery of his health; he was very much enfeebled and reduced by a long-continued attack of fever. For the first eight days after his arrival, a fenfible change took place for the better. During that time he was confined to the house, except in the evening, when he took a fhort airing in a chaise; and he used a diet which had been recommended to him. Feeling his health and fpirits fo quickly returning, he became lefs attentive; and one day, being the tenth

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tenth after his landing, he eat a hearty meal, and drank three or four glaffes of wine : in the evening he took his ufual ride, but complained of a diftenfion of his ftomach. In the night he felt fick, and vomited what he had eaten at dinner ; this was attended with headach ; and the next day he had a return of his fever, which continued for fome time ; and with much ado he was refcued from death.

ANOTHER gentleman, in much the fame fituation, but more weakened and reduced, who gave every circumfpection to his conduct, gradually recovered. He prudently declined, and had the refolurefolution to abstain from, excess and irregularity; the confequence of which was, that he was foon reftored to a state of health as vigorous as he had ever enjoyed in Europe.

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I COULD give a minute detail of many cafes of recovery, in order to demonstrate the pernicious tendency of an unguarded indulgence in point of diet, and the happy effects of a different fystem; but I prefume that what has been subtractions which every one has had opportunities of making, will render it unneceffary : I shall therefore proceed to give a few directions resubstractions the diet of those whose K recovery

#### recovery is accompanied with fome particular complaint.

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THERE is always a general feeblenefs and weaknefs of the body, which continue some time after a fever has disappeared; and these are in proportion to the nature and duration of the difease. It often happens that the general weaknefs remarkably affects fome particular parts, and none fo commonly as the ftomach and its dependencies. As a weak state of the stomach undoubtedly renders digestion defective, and nutrition imperfect, it is impoffible the general ftrength can be reftored whilft that complaint remains. In cases of recovery therefore, where it occurs, the

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the principal aim should be to remove it. This weak state of the stomach produces other circumstances, which, united, occasion a very tedious and troublesome recovery : these are, acidity or sourness, and flatulence or wind. Here the affistance of medicine must be called in : bathing and exercise will likewife contribute their share. But in all cafes requiring the ufe of medicine, the furgeon should perfonally direct; and I referve to a fubsequent place the confideration of bathing and exercise.

In weak ftomachs it is a ftanding rule, to eat little at a time and often, and to let what is eaten be of the most casy digestion and K 2 the

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the most nourishing nature. In cases of this kind, if the stomach is too much distended, its weaknefs is increased, and every other attendant complaint is aggravated. Milk; broths; eggs taken warm from the hen, and eaten either raw or foft-boiled; preparations of well-fermented bread; vegetable and animal jellies, as fago, falep; calves heads and feet stewed; turtle foup, &c. are nourifhing, and of easy digestion. As the stomach. regains its tone, more folid fubstances may be used, making a gradual progress, as I observed before, until its natural state is reftored.

SOURNESS

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Sourness and wind, in weak stomachs, are produced by an imperfect digeftion and affimilation of the food; therefore, the means of removing them are those which give the ufual powers to the ftomach. When this impaired digeftion is accompanied with these circumstances, all vegetable acids, and bodies readily producing acidity, fhould be avoided. Animal preparations of every kind are the least liable to give acidity. Dr. Arbuthnot, in his Treatife on Aliments, points out the following vegetables as anti-acid, viz. cabbage, turnips, carrots, onions, leeks, radifhes, and mustard. Rum mixed with water makes the best common liquor, Wine in K3 every

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every cafe of weakness is one of the most effectual articles we are poffeffed of, if used moderately and without intemperance \* : however, in weak ftomachs the greateft delicacy is required in using it, for it sometimes produces sournefs. Red-wines are the most unexceptionable, and Port the leaft fo of any. Tea, or indeed any warm infusion, is hurtful to weak ftomachs; every thing liquid fhould be taken cold : and as a fubstitute for tea, I would recommend a cold infusion of chamomile flowers, fweetened, and coloured with milk, which after fhort use becomes agreeable.

\* Vide the first part on Diet.

COSTIVE-

COSTIVENESS is frequently troublefome in the periods of recovery; and if there is no acidity in the ftomach, a vegetable diet is the most commendable. Figs, raifins, pruens, grapes, oranges, tamarinds, honey, and cream-tartar, and water, may be occasionally used. In cases of acidity, a teastand fpoonful or two of magnesia will produce an effect. If these however fail, recours must be had to more active laxatives,

LOOSENESS fometimes retards recovery. When it is flight, and proceeds from too great acidity in the ftomach, abstinence from vegetables, and fmall draughts of lime-water, or a little magnefia, K 4 taken

VELLING OF THE LEASE AND

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taken occafionally, will in general remove it. Loofenefs is a complaint that often continues, and proves dangerous; therefore, in all cafes where it remains more than twenty-four hours, application fhould be made for medical affiftance. In cafes of coftivenefs, whitewines are the beft; and in loofenefs, the red-wines, of which Port is the most aftringent, are recommended.

A swelling of the legs and ancles generally attends recovery, in a greater or lefs degree, according to the ftate of weaknefs and relaxation; it goes off as recovery advances, and difappears when that is perfect. The feet and legs fhould fhould be frequently rubbed with a flefh-brufh; and if the fwelling is confiderable, and gives pain, a little oil with camphor or fpirit of hartfhorn may be used previous to the friction. If this fwelling is attended with a more extensive dropfical disposition, the affiftance of medicine becomes necessary.

THERE are other complaints befides those I have mentioned, that follow the diseases of the West-Indies, and make recovery from them tedious and uncertain : but as they always require personal examination and advice, I omit giving any description of them.

THE preceding observations on Diet are principally directed to officers; but from them several things things may be felected, as applicable to the foldier. Convalefcents, or recovering foldiers, continue under the direction of the furgeon; but when he thinks it proper to difcharge them from the hofpital, they muft not be fuppofed to be perfectly reftored to their former ftrength. The entire reftoration of their health remains to be effected by a gradual return of their ufual mode of life, which it is to be prefumed undergoes the regulation and infpection of their officers.

CONSIDERABLE advantage, I think, would refult from claffing the men discharged from hospitals into separate messes, and bestowing more more particular attention on their diet. If fresh provisions cannot be obtained, the falt beef should be soaked in warm water; which, frequently repeated, would extract its faltness, and make it more easily affimilated to the purposes of nutrition: and instead of boiling it in the common manner, it should be cut into flices, and stewed with mucilaginous vegetables,

SOLDIERS for fome time after their removal from the hospital, should have an allowance of wine instead of spirit, and in every possible case fresh meat. Government, besides permitting this alteration in diet, would find advantage in giving a pint of porter per day to each man in

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in the fituation I have fpecified; and I venture to affert, that the increase in the pecuniary charge of the ration, would be very triffing, by honeft management. In recovery, porter is a pleasant and useful liquor, and may be taken in moderation at any time when wished for; unless it disagrees with the stomach, which it fometimes does in cases of acidity.

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DRESS

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### DRESS and EMPLOYMENT.

D URING the day, the drefs of perfons recovering from difease may be loose and light; but where the weather is damp, rainy, or variable, woollen cloaths are the beft. Perfons much enfeebled receive very great advantage from a flannel shirt worn next to the skin : at first this may feel difagreeable, but a few days wearing will reconcile it. By wearing a flannel shirt, a thinner exterior cloathing can be used, which otherwife would be improper : befides this, the flannel has the effect of retaining natural heat,

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heat, the fmalleft degree of which, in cafes of recovery, is valuable. It has another advantage, of preventing the unpleafant effects of perfpiration, which linen always imparts.

SOLDIERS, after their difmission from the hospital, should be for some time permitted to wear only their regimental waistcoats and breeches, with woollen and cotton flockings; and this ought to be more particularly attended to in night duty, or in any other exposed situation. There may be a necessity for putting soldiers too early on duty after their recovery : in such cases, confiderable benefit would be derived from, and bad consequences prevented by, the use of

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of the flannel fhirt, which ought to be provided at the expence of Government; but if that cannot be granted, commanding officers would find advantage from making it an individual expence, rather than it fhould not be obtained.

I AM aware of the objections which have been made to the flannel fhirt, from the fuppofed danger of changing it, or leaving it off altogether ; but this will be found, upon trial, only imaginary. Weaknefs characterifes recovery, which advancing the conftitution regains its natural ftrength. When the conftitution is perfectly reftored, no prejudicial confequences will follow the laying afide of the flannel fhirt : until that, however, is effected, it

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it may be proper to retain it. I have feen good effects in the cafes I have mentioned from the ufe of it; but I have never been able to obferve any bad effects from its difufe, after recovery was completely effected.

SOLDIERS fhould have more attention paid to them, to cleanlinefs, and neatnefs of drefs, after they are difcharged from the hofpital, than at any other time; becaufe difeafes are apt to leave a languor and lownefs of fpirits, which beget, if not prevented, dirtinefs and indolence.

THE observations under the article of Employment, on the means of preferving health, may be partly introduced here; 3 parti-

particularly those which relate to going to bed early, and rifing early, and to maintaining an active and cheerful state of mind. In every cafe of recovery, good and welltimed fleep affords sensible advantage : indeed, we can from the soundness of sleep often date the certainty of recovery, and even the period when that will happen. By it all the natural powers are ftrengthened; being relieved from their ordinary action, they return to it with an increase of vigour. From rifing early, the pleafing fenfations of a cool air, and the proper time of exercise, are obtained ; befides, the bad effects of morning fweats are prevented. There is nothing that retards recovery more

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than profule perfpiration; it not only proves the degree of relaxation and weaknefs, but always increafes it. This injurious perfpiration most frequently occurs early in the morning; in which cafe, it should be an invariable rule to forfake the bed instantly, and have the skin well rubbed with a dry cloth, or a steff-brush. It is best to rife, be it ever so early; even though, by doing so, it may be necessary to lay down for a ster.

EXERCISE of every kind is an effential circumftance in effecting recovery, and it fhould be proportioned to the feelings and ftate of ftrength. The mornings and evenings are the only proper periods of

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of using it. The fun fhould make his appearance, before riding or walking is attempted, and either may be continued one or two hours; and the evening exercise fhould commence about two hours before his fetting, and terminate almost immediately after it. By this mode you avoid the damp atmosphere of the morning and evening, which ought always, but more particularly in cases of recovery, to be shunned and guarded against.

SOLDIERS who cannot use the most eligible exercise, have a good subftitute in the morning and evening manual manœuvres. Soldiers when they are discharged from the hospital should be marched out, and L 2 exer-

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exercifed every dry morning and evening, until they have entirely regained their former flate of health. They flould not be fent too early on any exposed duty; the commanding officer can always employ them in fome way in which they will not feel the vicifitudes of weather.

In every period of recovery, and particularly in the early ftages of it, expofure to the fun, except at the hours I have mentioned, fhould be carefully avoided; but if neceffity will not allow this indulgence, the directions for preventing its effects ought to be more punctually attended to. I have often feen relapfes, and even death, follow an 2 impru-

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imprudent continuance and exercife in the fun, in cafes of recovery.

BATHING in the fea, in rivers, in domeftic cold baths, or by the fimple process of having two or three pailfuls of cold water thrown upon the body, is of the highest importance in facilitating recovery. In the first stages of recovery, the furgeon should be confulted; for there are certain circumstances which may render bathing improper, or require a great deal of circumspection in its use. If medical affistance cannot be obtained, it should be a rule never to bathe in cold water, whilst any particular complaint exists : for example, a headach, cough, pain in the L 3 breast

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breast or bowels, or any fimilar affection. After bathing, if any difagreeable feelings arife and remain, it ought to be discontinued : but if it is followed by active and cheerful sensations, evidence is given that the beft effects may be expected from it. Early in the morning is the fitteft period to bathe, and I would prefer the fhorebath, or the throwing two or three pailfuls of water over the body. The fhock by thefe methods is greater than by the others, and it may be increased or diminished at pleasure. When a chilliness continues some time after bathing, it fhews that the fhock has been too great; in which cafe it will be proper to lie down in bed, and drink 3

drink of any warm liquid. The pleafing glow which fucceeds the healthy bathing, may be gene. rally obtained by the preceding mode of returning into bed and drinking fomething warm, or by rubbing immediately after bathing with a flefh-brufh. In all cafes where bathing is ufed, I recommend rubbing with a brufh, or a piece of flannel, until the external part of the body becomes agreeably warm.

SOLDIERS, during recovery, never fhould be permitted to bathe without the direction and infpection of the furgeon; and when they return to duty, they ought to do it under his eye, or the prudent and watchful conduct of their officers. L.4 THE

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THE diseases of the West-Indies are always accompanied with a particular depression of mind, which is very apt to continue, and will certainly retard recovery. An anxious and low state of the mind is always produced by, or connected with, a weakness, or an impaired frame of the body; and this fituation of the mind, instead of being merely an effect or attendant of the valetudinarian habit, becomes an active cause and strong support of it : it therefore should be a constant aim to be lively and cheerful

OFFICERS are apt to indulge the wifh of getting to Europe; and if they folicit for permiffion and are refused, they become dejected and fretful ( 153 )

fretful, circumftances which oppofe the reftoration of health. On fuch occafions, that manly fortitude and perfeverance which are the characteriftic qualities of a foldier, fhould be peculiarly exerted. The converfation of a friend, the fprightly humour of a focial company, and the virtuous indulgence of that inclination which leads the Britifh officer into the female circle, ought to be alternately adopted.

I AM now to fubjoin, with occafional Notes, a few Obfervations and Rules felected from Dr. TISSOT'S ingenious "Advice to the People ;"

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People ;" published and translated by Dr. KIRKPATRICK, in the year 1771.

THE term of recovery from a difease requires confiderable vigilance and attention, as it is always a state of feeblenefs, and thence of depreffion and faintnefs. The fame kind of prejudice which deftroys the fick, by compelling them to eat during the violence of the difease, is extended also into the stage of convalescents, or recovery ; and either renders it troublesome and tedious, or produces fatal relapses, and often chronical distempers. Whenever the fever is compleatly terminated, some different foods may be entered upon : fo that the patient tient may venture upon a little whitemeat, provided it be tender; fome fish; a little flesh foup; a few eggs at times, with wine properly diluted.

Ir must be observed at the same time, that these very proper aliments, which restore the strength when taken moderately, delay the perfect cure if they exceed in quantity, tho' but a little ; because the action of the stomach, being extremely weakened by the discase and the remedies, is capable only, as yet, of a small degree of digestion; and if the quantity of its contents exceeds its powers, they do not digest : frequent returns of the fever supervene.

EVERY

EVERY bad confequence is prevented by the recovering fick contenting themfelves, for fome time, with a very moderate fhare of proper food. We are not nourifhed in proportion to the quantity we fwallow, but to that we digeft.

A PERSON on the mending hand who eats moderately, digefts it, and grows ftrong from it. He who fwallows abundantly, does not digeft it; and, inftead of being nourifhed and ftrengthened, he withers infenfibly away.

RULES.

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#### RULES.

1. LET those who are recovering take very little nourishment at a time, and take it often.

2. LET them take but one fort of food at each meal, and not change their food too often.

NOTE. This rule I think too abfolute; a perfon in recovery may with care indulge his tafte of variety in fubftances of eafy digeftion, and of a nourifhing quality.

3. LET them chew whatever victuals they eat very carefully.

4. LET

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4. LET them diminish their quantity of drink. The best for them in general is water, or toast and water, with a fourth or third part of white wine. Too great a quantity of liquids at this time prevents the stomach from recovering its tone and strength; it impairs digestion, &c.

NOTE. An exception may be made to one part of this rule refpecting wine, as in cafes of loofenefs, and where an acidity or fournefs prevails, in which I would recommend red in place of white wine; and in every cafe I think a glafsful of pure wine may be ventured upon, and repeated according to the degree of recovery.

5. LET

5. LET them go abroad as often as they are able, whether on foot, in a carriage, or on horfeback. This last exercise is the healthiest of all. If exercise is taken soon after a meal, it impairs digestion.

NOTE. The first part of this rule, relating to the mode of exercife, must be conducted in the West-Indies with the greatest circumspection and care; and the periods for exercise which I have formerly pointed out should be chosen.

6. As people in the ftate of recovery are feldom quite as well towards night, in the evening they fhould take very little food. Their fleep will be the lefs diffurbed for this,

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this, and repair them the more and fooner.

NOTE. This is a very important rule, and ought to have every compliance given to it. Light fuppers in a state of health are only commendable in the West-Indies.

7. THEY should not remain in bed above feven or eight hours.

8. THE fwelling of the legs and ancles, which happens to most performs at this time, is not dangerous; and generally difappears of itfelf, if they live foberly and regularly, and take moderate exercife.

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9. It is not neceffary in this ftate that they fhould go conftantly every day to ftool; though they fhould not be without one above two or three days.

10. SHOULD they, after fome time, ftill continue very weak; if their ftomachs are difordered; if they have, from time to time, a little irregular fever; they fhould take fome dofes of bark daily, which fortifies the digeftions, recovers the ftrength, and drives away the fever.

NOTE. This is a rule that does not come within the limits of my Obfervations; it relates to the ufe of medicine, the confideration of M which

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which I have all along avoided; becaufe I advife the furgeon to be confulted in every cafe where that becomes neceffary.

11, and laft: THEY must by no means return to their labour or usual employment too soon.

min or sinus name

Same and

#### THE END.

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