West African hygiene, or, Hints on the preservation of health and the treatment of tropical diseases, more especially on the west coast of Africa / by Charles Scovell Grant.

Contributors

Grant, Charles Scovell. Great Britain. Colonial Office. Library King's College London

Publication/Creation

London: Published for the Government of the Gold Coast Colony, by Edward Stanford, 1884.

Persistent URL

https://wellcomecollection.org/works/y66udmtm

License and attribution

This material has been provided by This material has been provided by King's College London. The original may be consulted at King's College London. where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection 183 Euston Road London NW1 2BE UK T +44 (0)20 7611 8722 E library@wellcomecollection.org https://wellcomecollection.org

WEST AFRICAN HYGIENE

1789 12 mo



Transferred on permanent loan

MMVII

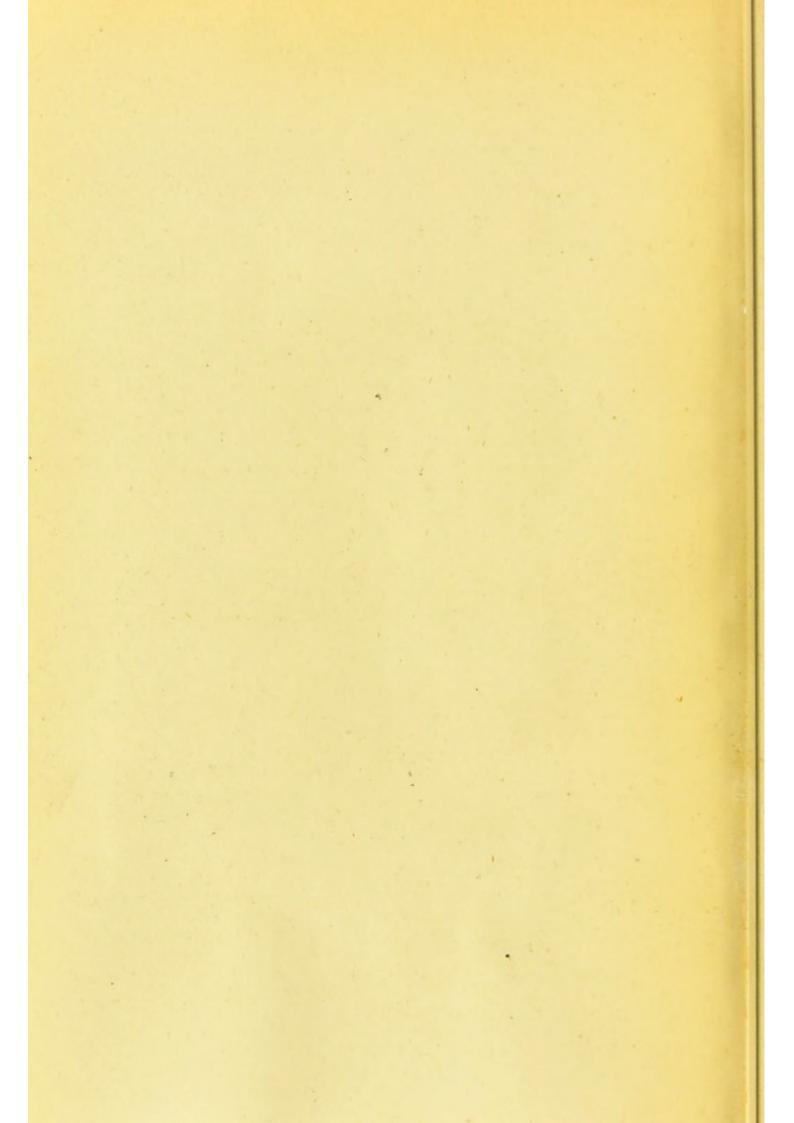
ING'S College LONDON

Front there is well

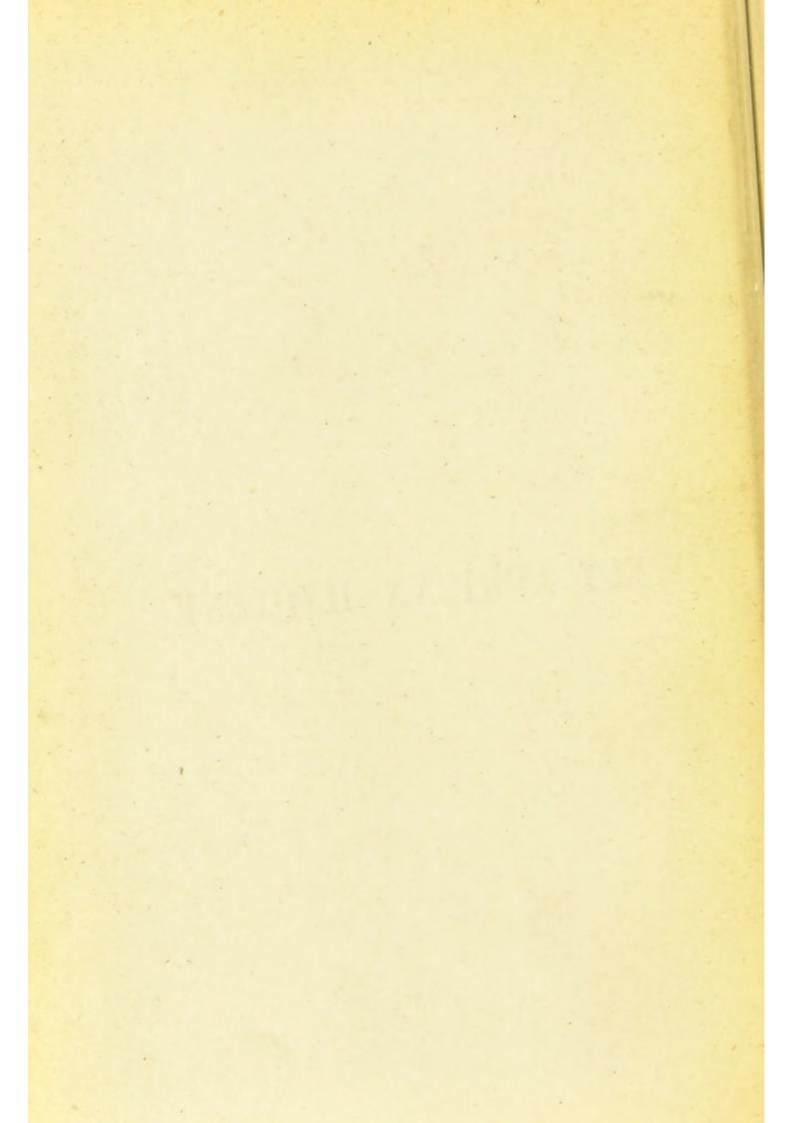
Library

201113578 3

KING'S COLLEGE LONDON



WEST AFRICAN HYGIENE



WEST AFRICAN HYGIENE

OR,

HINTS ON THE PRESERVATION OF HEALTH AND THE TREATMENT OF TROPICAL DISEASES,

MORE ESPECIALLY ON THE

WEST COAST OF AFRICA.

BY

CHARLES SCOVELL GRANT,

M.D. UNIV., DUBLIN,

Member of the King and Queen's College of Physicians and Licentiate of the Royal College of Surgeons in Ireland, &c.

. Second Edition.

PUBLISHED FOR
THE GOVERNMENT OF THE GOLD COAST COLONY,
BY

EDWARD STANFORD, 55, CHARING CROSS, LONDON, S.W. 1884.

LONDON:
WATERLOW AND SONS LIMITED,
LONDON WALL.

1101587

PREFACE TO SECOND EDITION.

IN preparing this edition I have carefully revised and amplified the matter contained in the first edition.

I have also added chapters on biliousness, affections of the skin, yellow fever and cholera, in the hope that thereby this little work may be rendered more widely useful, both on the West Coast of Africa and in other tropical stations.

C. S. G.

February, 1884.

PREFACE TO FIRST EDITION.

THIS pamphlet is intended more especially for the information of Europeans, not belonging to the Medical Profession, who are called upon to reside on the West Coast of Africa. I have therefore only noticed such Diseases of the Coast as are most prevalent and most dangerous, and in which some knowledge of effectual remedies might save fatal delay.

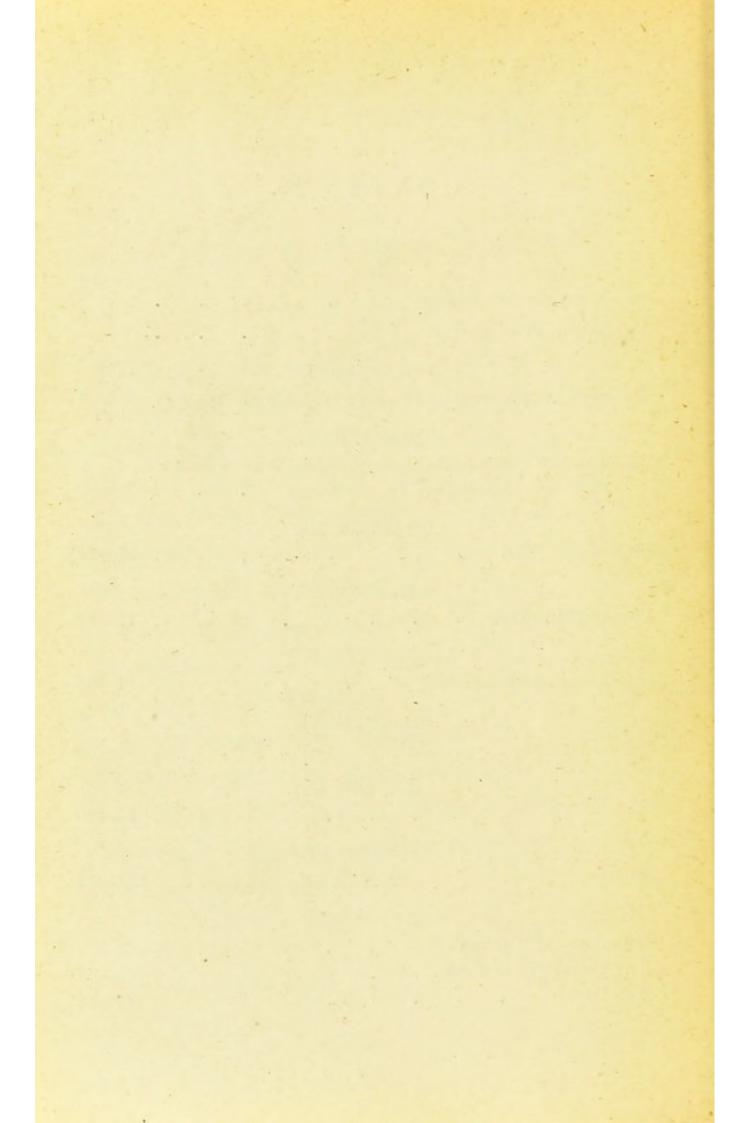
I have endeavoured to make myself intelligible to any unprofessional reader, and I have for that reason avoided the use of technical terms.

If the hints embodied in these pages prove of service to Europeans—especially when stricken with sickness, and far from skilled assistance—I shall be well rewarded; and I should be abundantly gratified to find that my efforts have not been entirely useless.

C. S. G.

CONTENTS.

		PAGE
PREFACE TO SECOND EDITION	*	
PREFACE TO FIRST EDITION		
CHAPTER I.		
GENERAL ADVICE TOWARDS THE PRESERVATION OF HEALTH	Ι.	1-4
CHAPTER II.		
MEDICAL AND OTHER PREVENTIVE MEASURES AGAINST DISE	ASE	S
PECULIARLY INCIDENTAL TO THE COAST		
BILIOUSNESS		10_11
		10-11
CHAPTER IV.		10 10
Malarious Fevers		12—19
CHAPTER V.		
DIARRHŒA AND DYSENTERY		20-30
CHAPTER VI.		
SKIN DISEASES		31-36
CHAPTER VII.		
YELLOW FEVER		27 40
Third Third		37—40
CHAPTER VIII.		
Cholera		41—44
APPENDIX.		
THE CLINICAL THERMOMETER		45
THE COLD BATH IN FEVER		45-47
THE OUTFIT		47 51



WEST AFRICAN HYGIENE.

CHAPTER I.

General advice towards the Preservation of Health.

Wear flannel next to the skin, or, if flannel be much Clothing disliked, wear "Oxford" shirts with under-vests of cotton or of "Balbriggan" a mixture of wool and cotton.

Sleep in soft flannels.

Wear cotton or "Balbriggan" drawers.

Wear a light flannel or chamois leather cholera belt.

Serge, flannel, or very light tweed are the best materials for outer clothing.

Take two principal meals in the day; e.g. at 10 a.m. Diet. or 11 a.m., and at 6 p.m. or 7 p.m.

In addition, shortly after rising in the morning and before leaving the house or tent, always take a cup of

coffee, tea, or cocoa, together with a little toast, and an egg or two, either boiled, or whipped up in the beverage.

It is highly imprudent to expose oneself, or to commence work, without having previously taken a light repast such as the above.

A cup of tea or cocoa and toast should also be taken between breakfast and dinner.

Endeavour to procure good, simple, and nutritious food for the daily meals.

Make a point of having vegetables whenever practicable.

Resist the inclination to constantly partake of highly seasoned dishes, curries, and the like.

Fruit in moderation is wholesome, but should not be eaten after dinner.

Alcoholic stimulants must be either abstained from altogether, or only used in the strictest moderation.

Brandy ought never to be touched, unless ordered medicinally by a physician.

Claret, hock, or German lager-beer, may be drunk with the meals; of course not immoderately.

If a man has been a total abstainer before coming to the Coast, my advice to him is,—Remain a teetotaler.

Drink,

The exception to this is only when illness or exhaustion really necessitates the use of alcoholics.

If a man has been a temperate drinker before coming to the Coast, let him remain such, and only be more strict than ever in his temperance.

If a man has been a free liver, it is absolutely essential that he should change his habits without delay, or the climate of the Coast will terribly revenge itself for his bravado and folly.

Of spirits, I regard brandy as the worst form of poison; gin, rum, and absinthe next in degree of noxiousness. Old Scotch or Irish whiskey, in great moderation, well diluted, and never taken on an empty stomach, is perhaps the least deleterious of spirituous liquors and the slowest poison.

A little good champagne, occasionally, when one is exhausted or out of sorts, is a useful and safe stimulant.

After illness or when the system is lowered a little good burgundy or claret may be beneficial.

Coffee and tea are both excellent restoratives for the fatigued body or wearied brain, and are far better in the performance of hard work than alcohol.

New-comers are disposed to eat too much, an error over-eating.

to be deprecated equally with that of insufficient feeding. After a short sojourn on the Coast however, want of appetite will suffice to guard the European against the dangers of over-eating.

Exercise.

Walk or ride before the sun is high: that is to say, between 7 a.m. and 10 a.m.; also when the sun is declining, *i.e.* between 4.30 p.m. and 7 p.m.

Shut jalousies of bedroom windows at night.

Light fires around tent or hut at night when camping in the bush.

Exercise is beneficial and necessary, but over-fatigue is very dangerous. To expose oneself unnecessarily to the sun is foolish as it is nearly certain to be attended with injurious effects.

Sanitation.

Use earth closets and take care that the earth is dry, fine mould; not sand. Have closet emptied at short intervals and disinfect with carbolic acid. Allow no refuse about premises.

Morals.

Great moderation in the indulgence of the sexual passion is advisable.

Cultivate an impassive and philosophic temperament; as irritability, a very universal product of the climate, renders a man uncomfortable, and has undoubtedly a bad influence on the general health.

CHAPTER II.

Medicinal, and other preventive measures against Diseases peculiarly incidental to the Coast.

Before entering on the treatment to be followed in the various diseases which I am shortly about to notice, I desire to impress upon Europeans serving on the Coast, the great value of certain measures for the prevention of diseases induced by the climate, or, at least for the mitigation of their severity and danger when they do supervene.

These measures are the result of practical experience, and they will, I hope, be carefully observed by such readers as are satisfied to take my advice.

A small dose of Quinine—two to three grains—should Quinine be taken daily. The time for taking the dose should be either after the early breakfast—when duty necessitates exposure in the morning—or half-an-hour before the evening meal.

After three or four months' residence, this dose may be

taken less frequently, e.g., once or twice weekly, but the daily dose must be resumed in the more unhealthy seasons or during much exposure as in travelling in the bush.

Quinine can be taken in the form of a pill, if the solution is found to be disagreeable.

A larger dose ought to be taken occasionally, e.g., after a bad wetting, or after a day of extra hard work. Four or five grains of Quinine taken on such occasions followed by a cup of good coffee, will often prevent an incipient attack of fever.

The Bowels

Great attention must be paid to the state of the bowels. Constipation is the usual effect of the climate; partly, because little exercise can be taken; partly because it is difficult to get green vegetables, or to vary the diet; and, in a great measure, on account of the subtle malarious poison which pervades the atmosphere, and which renders the liver inactive in its functions.

Fruit.

Therefore, make use of fruit as an habitual laxative; but remember, nevertheless, that inordinate consumption of fruit may bring on Diarrhœa—a condition to be avoided equally with that of Constipation.

A banana or two, a couple of oranges, half a ripe papaw with some juice of the lime—any of these, but not all three—will be found pleasant, safe, and generally efficacious in promoting regular action of the bowels, if taken in the morning on rising, and a short time before anything else is eaten.

The papaw is an excellent fruit and has the property of acting like a Digestive Ferment. It may with advantage be eaten at the close of the breakfast, and will be found to assist digestion by those who suffer from Indigestion.

Occasionally a more active and special stimulus to the Aperients. liver will be necessary. For example: two or three of "Cockle's Pills," or a few grains of Rhubarb, Calomel, and Ipecacuanha, as combined in the "antibilious pills," for which I have given a formula in the appendix. A dose of "Lamplough's Pyretic Saline," with the juice of a lime, or of a natural purgative water as "Æsculap," is also a very safe aperient, and will assist the action of the pills should they fail to operate satisfactorily of themselves.

A cold bath (or safer "with the chill off") should be Bathing. taken daily, unless contra-indicated by indisposition.

A shower-bath may he used cold, if agreeable, and is very refreshing and tonic to the system.

The Sponge bath certainly ought not to be used quite cold by persons who have been long resident in the Tropics nor by any person who is subject to periodic attacks of fever or who has suffered or suffers from any affection of the Liver.

The bath should be taken about one hour before the first chief meal of the day. If, however, about to start on a journey, the bath had better be taken in the morning, just before the usual light breakfast, and before setting out.

Soap.

The body should be washed all over every day with soap. "Calvert's Carbolic Acid Toilet Soap," is the kind I specially recommend.

Prickly heat. Before using the shower, it is a good plan to rub the body over with the juice of fresh limes. This is not only a preservative against the "prickly heat," but is also a cure for that very irritating affection.

Chills.

The least feeling of chill, shivering, or repugnance to the bath generally means mischief. It is an indication that the bath must be abstained from, taken warm, or postponed that day.

After exercise. On returning home after work, or a journey, the

underclothing—which is generally more or less soaked with perspiration—should at once be changed. The entire person should, at the same time, be rubbed down with a wet towel. If much fatigued, a tepid bath, with a cold shower or douche just before getting out of the tub, will be found most refreshing and salutary.

A good helmet ought always to be worn out of doors, Protection of the head. and an umbrella should be used. Remember,—Once sunstruck, always sunstruck!

CHAPTER III.

Biliousness.

Prevalence. Departments of the functions of the Liver, characterised by the condition popularly known as "Bilious," are very common in tropical climates, and are too often the result of indiscretion in the mode of life.

The symptoms briefly are:—Feeling of good-fornothingness, heaviness, fullness, aching of head,
flatulence and distension of abdomen, heartburn, loss
of appetite, nausea—perhaps vomiting, especially
in the morning, constipation. The tongue is foul
and there is a disagreeable taste in the mouth.
Eyes and skin itch, and there may be slight
jaundice.

Treatment, General. Punctilious observance of the rules of life laid down in preceding chapters—i.e., light diet and abstinence from alcohol.

Medicinal (i.) Two Antibilious Pills, followed in six or

eight hours by a Saline purgative (Glauber's or Epsom Salts or "Æsculap" or "Pyretic Saline"). To be repeated on alternate nights until attack passes away and the stools are natural in appearance and quantity.

(ii.) The *Liver Mixture for five or six days.

It will not interfere with, but assist the other remedies.

^{*} Vide Appendix.

CHAPTER IV.

Malarious Fevers.

symptoms. On the West Coast of Africa, the cold sensations and shivering which usually usher in Intermittent Fever (Ague) and other forms of fever induced by malarious poisoning, are by no means invariable symptoms. Indeed, I think their presence in a marked degree is exceptional. When present they indicate the first stage of fever.

The symptoms most generally experienced, and which attract the attention of the sufferer, are—headache, pains in the back and legs as if from over-exertion, lassitude, loss of appetite, and thirst. There may also be nausea and vomiting. If, together with these symptoms, the clinical thermometer shows an elevation of temperature, even of only one degree, fever is imminent.

Remedies

This, therefore, is the stage at which remedies ought to be had recourse to, to mitigate the severity and curtail the duration of the developing fever. The proper remedial measures are:—To obtain skilled medical advice and assistance, if possible. Early judicious treatment is of the greatest importance in these diseases.

To induce action of the bowels if they have not been The Bowels.

freely moved. For this purpose an active purge should at once be taken, as for example, an ounce of Epsom Salts or of Glauber's Salts; or * twenty grains of Jalap with two or three grains of Calomel.

If the stomach be very sick the Calomel may be taken alone, followed, after an hour, by a table-spoonful of Pyretic Saline with fresh lime-juice.

The patient must get to bed at once, and must cover himself with blankets.

To encourage free action of the Skin. Should the The Skin. bowels have been well moved before the abovementioned symptoms are noticed the purgative will not be required. At once, under such circumstances, or half an hour after the purge, a dessert-spoonful of "Warburg's Tincture" must be taken, to be repeated in one hour or one hour and a half, if skin is still dry.

^{*} Jalap is not disagreeable. It may be taken in tea or in water.

It is advisable to abstain from food or drink, if possible, for one hour before and after the dose.

. If "Warburg's Tineture" is not at hand, or if the stomach rejects it, even in tea-spoonful doses,* the †Fever Mixture must be employed every hour until free sweating is induced.

Tea, tamarind water, or lime juice drink may be drunk to relieve thirst.

After the sweating has continued for one or two hours, relief from headache and other symptons should indicate a subsidence of the fever. This condition may be ascertained beyond doubt by means of the clinical thermometer, if that is at hand. The time has now arrived for another remedy.

Quinine.

A large dose of Quinine—ten grains—is now to be taken. It may be advantageously combined with a little Epsom Salts or Glauber's Salts, if the bowels are still constipated, or a good dose of Pyretic Saline may be taken after it. The dose of Quinine is to be repeated in six hours time.

^{*} The addition of two or three drops of Chloroform will assist the stomach to retain it.

⁺ Vide Appendix.

A return of the fever may be expected after an Return of interval of twelve or twenty-four hours, and about the same time of day as that at which it first commenced.

One hour before this time, another large dose of Quinine should be taken, in order to stave off—if that be possible—the returning paroxysm.

If, however, in spite of this preventive dose, the sensations of the patient clearly inform him that the enemy is again taking possession, then, "Warburg's Fever Tincture" must be had recourse to, and the same remedial process carried out as I have indicated in the first instance.

The taking of the Quinine is to be continued in the Continuance of intervals of freedom from fever—during the inter-quinine.

missions, that is to say—until some of the following sensations are noticed: singing in the ears, slight deafness, and throbbing of the temple arteries. These symptoms indicate that the drug has produced its physiological effects upon the system. Now the dose is to be decreased to a half or a quarter the amount.

Precautions, however, are not to be relaxed. A return of the fever must be looked for and expected, until entire freedom from fever shall have lasted for at least forty-eight hours, and the patient should keep in bed, or at

least remain in doors until this period has elapsed.

The patient may then, and only then, congratulate himself on being safe from a recurrence, so far as that particular attack of malarious fever is concerned.

REMITTENT FEVER. When the fever is of the type known as "remittent," it is characterised by not disappearing entirely in the intervals, but by only subsiding in intensity. It continues in a slighter degree during the periodical remissions.

This type of fever is more obstinate and more distressing than the true intermittent form. It is in these fevers that the clinical thermometer is of so much use. It indicates with exactitude when the fever is abating, and, as the periods of remission are the times when Quinine should be taken, the clinical thermometer is a sure guide in the use of that valuable specific.

Vomiting.

When nausea or vomiting are prominent symptoms, a strong mustard poultice should be applied to the pit of the stomach, just below the breast-bone, and a little to the left. The patient may also be relieved by taking ten to twenty grains of Bicarbonate of Soda, together with two drops of Chloroform, or thirty drops

of Chloric Ether, with a little lime-juice drink occasionally. Sucking small pieces of ice (if available) will relieve thirst and seothe the stomach.

If the headache is very distressing, the juice of Headache. half-a-dozen limes may be rubbed into the hair, and a jugful of cold water may be occasionally poured over the head. This usually gives considerable relief.

During the fever general baths are not to be taken, Sponging.

unless under the immediate advice and supervision of
a medical man. The body may, however, be sponged
with tepid water, to which may be added the juice of
limes, or Eau-de-Cologne, or Toilet Vinegar. When
sponging is done, the whole body is not to be exposed at
once, but first one part and then another is to be sponged,
in order to avoid the risk of taking a chill.

Should the skin continue dry in spite of the remedies The cold pack.

already advised, or should the stomach reject those remedies, then I advise the "cold pack." It may be used at the onset of the fever if other remedies are not at hand, or, in addition to them. The following is the mode of employing it:—

Spread out two thick blankets on the floor or bed,

with a couple of pillows under them at the head. Upon these blankets place a large sheet, wrung out of cold water. Let the patient lie down at full length upon the sheet, the arms placed against the sides. An attendant is then to rapidly fold the wet sheet round the body. from the chin to the feet. The blankets are similarly to be tightly rolled round the body, over the sheet, and more coverings may be heaped over all.

The patient may remain in the pack for twenty minutes to one hour, according as his sensations indicate its effect on him. On coming out of it, the body should be rapidly rubbed over with a dry sponge or towel, and the patient should return at once to bed. It should be repeated if the symptoms appear to call for it.

Effects of the pack. The cold pack seldom fails in inducing perspiration, and in lowering the temperature. It also generally relieves nausea and vomiting, and frequently produces refreshing sleep. It is not disagreeable; on the contrary, patients usually enjoy it. Although its administration is a little troublesome, yet it is so safe, and so efficacious an adjuvant of treatment, that it should not be neglected.

Diet in fever, In the short hot paroxysms of ague it is advisable to

refrain from food, but in the intermissions and throughout remittent fever the strength must be supported by food given in small quantities and at short intervals.

Strong broths, eggs beaten up in milk, tea, or water, and such-like easily assimilable forms of nutriment are to be had recourse to. Pepsine or peptonized* food will be found very useful. A little champagne and soda-water may be taken, if there is much nausea, vomiting or exhaustion.

Lastly, after an attack, great care should be exercised Recovery in resuming the ordinary diet and mode of life. The daily bath should be taken warmer for several days after recovery, and the entire disappearance of the fever is not to be regarded as certain, unless the temperature shall have remained normal for at least forty-eight hours, as before mentioned.

* Vide Appendix.

CHAPTER V.

Diarrhœa and Dysentery.

DIARRHŒA is often brought on by errors of diet, either Diarrhœa. in eating or drinking. Indulgence in such articles as crabs or crawfish, cooked or uncooked mangrove oysters, too much fruit, English ale and stout, is often followed by sharp and painful diarrhœa.

> It is not natural that purging should continue for more than a few hours in health, and remedies should be used to arrest it if it be more persistent.

> If, however, the purging has been produced by errors of diet, and if the evacuations are large, it will be well to allow two or three motions to pass away before attempting to arrest the discharge, or to control the action of the bowels.

The best and handiest remedy for the unprofessional patient is Dr. Collis Browne's "Chlorodyne." Of this ten to thirty drops in water may be taken for a dose, and may be repeated every three to six hours, according

to its effect and to the persistency of the symptoms.

Remedies.

In mild cases five drops every two, three or four hours will probably be sufficiently large doses.

In place of Chlorodyne there may be taken ten drops of Laudanum, together with twenty drops of Tincture of Ginger, in water. Or, instead of that, twenty grains of Bicarbonate of Soda, together with twenty grains of Subnitrate of Bismuth and thirty drops of Chloric Ether in water. The dose of either may be repeated every three or four hours, until relief is experienced.

Occasionally, diarrhoea is attended with colicky pains, Colic. and with scanty evacuations which give no relief. In such a case there is probably some irritant material in the intestinal tract. The appropriate treatment, therefore, would be a dose of Castor Oil, or ten grains of Rhubarb with twenty grains of Bicarbonate of Soda.

For a day or two after the attack is over, an occasional After treatdose of Bismuth and Soda will be advisable, and, if
necessary, a dose of Chlorodyne. Animal food should
be abstained from until recovery. The most suitable
diet consists of arrowroot or cornflour, with milk or
water, and chicken-broth.

It is not desirable to get into a habit of using

Chlorodyne or other opiates on slight occasions because they arrest the secretion of bile and thus derange the liver, and therefore the digestion. After all purging has ceased for twenty-four to thirty-six hours it may be advisable to take an Antibilious Pill, or a dose of mild Saline Aperient.

DYSENTERY.

Dysentery is very common on the coast, and its effects are frequently most disastrous. Nevertheless, it yields easily to treatment, if that treatment is judicious and commenced in time.

Nature of it. In no disease is it more important that immediate measures for checking it should be taken. It is a disease characterized by an ulcerated condition of the large bowel. Every day's neglect naturally leads to the further development of the ulcers, and therefore tends to increase the danger of the patient. Moreover, even when the disease does not prove immediately fatal, it is apt, if neglected in its earlier stages, to pass into chronic dysentery, a condition which renders life a veritable burden.

Causes: Water. Impure drinking-water is undoubtedly a very frequent exciting cause of dysentery in malarious countries.

Therefore, be constantly most careful in respect to the water used for drinking and in cooking. Always have it filtered, and take care that the filter itself is clean. Water, when very bad, should be both boiled and filtered, and if it seems to contain much impurity, a few grains of alum should be added before passing it through the filter.

Wet and cold are also frequent exciting causes of Wet and dysentery in this climate. Therefore, their influences should be avoided and guarded against as much as possible. Wet clothing should be changed as soon as practicable. Take an additional dose of Quinine if unavoidably exposed to wet weather, if living in leaky quarters, or if camped on or near marshy ground.

Alcoholic stimulants or fruit in immoderate quantity, Errors of Diet.

and highly spiced and peppery dishes which irritate the stomach and derange the functions of the liver, produce congestion and irritation of the large intestines in which the indigestible and undigested débris accumulates.

Dysentery is not a purely local disease, though its Malaria.

manifestations appear so. It is a disease depending on
that insidious and mysterious poison Malaria, and the

causes already enumerated are really only sub-agents to that poison in setting up the disease. The mischievous influence they exert is due, in great measure, to the vitiation of the system induced by exposure to malaria.

Symptoms.

Dysentery usually commences with diarrhea, which, for a few days, or perhaps only for a few hours, appears of an ordinary type. In some eases it is very insidious in its development and progress. This may be so slow and indolent that, for days and even for weeks, the sufferer may be ignorant of his true disease. Therefore, never neglect or make light of diarrhea in a tropical and malarious climate.

It is not natural that diarrhea, unless purposely excited by medicines, should continue for more than twelve hours. Speaking generally, it should not be allowed to continue longer.

Distinctions between Dysentery and Diarrhœa.

In dysentery, however, the purgings are more frequent from the first, as a rule, than in simple diarrhea. The evacuations are more scanty and scalding and the pain is more constant. Almost invariably there is a very distressing sensation of weight, and an apparent want of unloading about the fundament and lower bowel. This last symptom is very distinctive.

The colicky pains are of a very sickening character, and are mainly localised about the navel. The scanty evacuations contain blood and mucus, have a slimy appearance, and give off a peculiarly feetid odour. The calls to stool are very frequent, though but little is passed.

Fever is not an invariable concomitant, but is usually to some degree present. The stomach is generally sick, and the sufferer is languid, and has a repugnance to food of any kind. The tongue will be foul with red tip and edges, or it may be, not infrequently, unnaturally clean and bright red.

Fortunately, we have in *Ipecacuanha* a specific for Treatment. dysentery, if the disease be taken in time. Even in the most advanced and hopeless forms of the malady, this invaluable drug often arrests its progress and obviates the fatal termination which appears so near.

The remedy is perfectly safe, so that, even if a dose of it be taken under a false alarm of dysentery, it will do no harm, nay! will probably prove beneficial. The objections to it are its bulkiness, and its emetic properties. But perseverance, and a strict observance of the following directions, will nearly always enable the patient to retain it.

How to take Ipecacuanha in dysentery. Go to bed.

Abstain from all food or drink for one or two hours before taking the medicine, and for the same period after taking it.

Put a mustard poultice on over the pit of the stomach, as advised in fever, or, instead of it, put on a piece of linen moistened with a few drops of pure Chloroform.

Take, at the same time, twenty to thirty drops of either Laudanum or preferably Chlorodyne in a little water.

When becoming drowsy take twenty to forty grains of Ipecacuanha, with two or three drops of Chloroform, or twenty or thirty of Chloric Ether, suspended in half a wineglassful of water, which may be flavoured with bitters if desired.

If the Ipecacuanha is vomited, wait for two hours and then try again, reducing the dose by one half.

Persevere, reducing to one-fourth if necessary.

If it is retained, repeat the dose in the same manner in six or eight hours time.

(If the Ipecacuanha can be retained without Chlorodyne, omit latter.)

A little Quinine ought also to be taken daily, e.g., one or two pills containing 2½ grains each.

Subsequently, take a dose of five to fifteen grains

of Ipecacuanha every twelve to twenty-four hours, for two or three days. When all acute symptoms are relieved, take a dose of two or three grains every six hours in the day, with five to fifteen drops of Chlorodyne. This may be continued for another three days.

Constipation sometimes succeeds the purging, after After constipation. treatment. In that event, purgatives are only to be resorted to with extreme discretion. The very mildest should alone be used. For example; one tablespoonful of castor oil, or five grains of rhubarb with a grain or two of Ipecacuanha. Later on an Antibilious Pill may be taken if stools are either very light or very dark-coloured.

If, unhappily, Ipecacuanha can not be retained, in Other remedies. spite of perseverance in the aforementioned method of taking it, another remedy must be had recourse to. The next best will be the *pills of lead and opium, † of which two or three may be taken in the day, or the Soda and Bismuth powders, with a few drops of Laudanum‡.

^{*} Lead, like opium, interferes with the functions of the liver, and should be used only so long as absolutely necessary.

[†] Vide Appendix.

[‡] Vide Diarrhœa.

Chlorodyne is also a good remedy, and will at least control the malady until skilled advice can be obtained. Hot stupes, or poultices, will be found grateful, and will relieve the colic and the nausea. Small warm injections into bowel of water (or starch) and Laudanum (drops fifteen to thirty) will allay the distressing bearing down sensation.

In convalescence. During convalescence an alterative tonic will be of service. Such a one may contain Sal Ammoniac, with Tincture of Steel, and dilute Hydrochloric Acid.

Diet is of the first importance, and must consist of food easily assimilated in the stomach, so as to allow of as much rest as possible to the ulcerated bowels.

Diet in acute stage.

No meat, fish or fowl may be taken in substance during the acute stage. No fruit, potatoes or other vegetables. No alcohol, unless in exceptional cases of great prostration, when a stimulant to support the powers of life through the ordeal is absolutely necessary. In such cases, a little champagne in small quantities at short intervals, will often tide the patient over the

Note.—The stools should be received in pots in which some carbolic acid or other disinfectant has been placed, and they should be immediately removed and buried or otherwise destroyed.

critical period, or a little-brandy, with an egg beaten up in warm milk and water, may be given.

The most appropriate forms of food will be—milk, with soda-water or lime-water; arrowroot; tapioca; sago; Revalenta arabica; strong broths well strained; raw eggs beaten up with milk or water. Pepsine will assist the digestion, or if available *peptonized beef jelly or peptonized food should be employed.

Drink should be taken sparingly. The most re-Beverages. freshing and the safest beverages are—the juice of one lime to the tumblerful of water with twenty or thirty grains soda bicarbonate; a little claret and water; a little champagne and soda-water; or a slightly acid and astringent drink, such as can be made by adding a teaspoonful of dilute Hydrochloric Acid to a quart of pure water.

Return to the ordinary diet must be exceedingly Diet during recovery.

gradual, and the sufferer must be most careful in this respect for some weeks after apparent recovery.

Relapses are frequent and often fatal, when this caution is neglected. The ulcers, not entirely healed up, may, by any indiscretion, be again irritated into destruc-

^{*} Vide Appendix.

tive action, to the reproduction of all the acute symptoms, and to the disappointment and danger of the patient.

Festina lente:—Give Nature time, and do not ask a weakened part of the body to resume the old work in its entirety too soon.

CHRONIC DYSENTERY. Calls for removal from the malarious climate. Occasional doses of Ipecacuanha, Quinine and Iron are the drugs indicated. Milk diet and good nursing are most important adjuvants to medicinal treatment.

CHAPTER VI.

Skin Affections.

Persons in two very different conditions of health Boils.

- (i.) The strong, full-blooded new-comer, who perspires profusely, eats largely, and is often indiscreet in his food, drink and exercise.
- (ii.) Those who are debilitated by fever, long residence, or by any other cause.

The constitutional treatment of the first class will Treatment. consist in Antibilious Pills and saline aperients (see Biliousness). That of the second type of patients must be of a tonic and alterative character, e.g., the tonic recommended after dysentery (see Dysentery), Quinine and Nux Vomica. Aperients when required. Good diet and, probably, a little sound wine (claret or burgundy).

If the boils be few (two or three) and accessible, the Local treatment diligent application of the patient's own saliva in the

early stages will often arrest their further development. Painting them with Tincture of Iodine will sometimes effect the same purpose. The ointment of Belladonna will relieve pain and limit inflammation. If the boil goes on towards maturation, small hot poultices should be applied over the Belladonna ointment.

After the boil has burst, olive oil, in which one part of carbolic acid to 30 of oil has been dissolved, or zinc ointment, will be suitable applications. If the boils are very numerous, paint the incipient ones with Tincture of Iodine and apply Belladonna ointment to those in a more advanced and painful stage.

is far more destructive and extensive, the pain more severe and the constitutional effects more grave.

Carbuncle occurs only in those whose constitution is lowered or vitiated by climatic or other causes.

Treatment. The advice of a medical man should, if possible, be always obtained.

The general treatment must be tonic; Quinine and Iron; aperients; change of climate.

Belladonna ointment; Tincture of Iodine painted

Local treatment. when matter and sloughs are being discharged, wet the poultices with carbolic oil (1 to 20 or 30).

Is common and often intractable in the tropics. It ECZEMA. usually affects the parts of the body in which perspiration is abundant and confined, and on or near which hair grows, e.g., the scrotum and inside of thighs adjacent, the armpits, bends of elbow and knee.

It may, however, be much more widely distributed or become so.

It commences with redness, heat and itching of the Appearance skin. Hard papules (pimples) form, which soon be-symptoms. come vesicular (watery), and discharge an irritating fluid. Later, scabs and ulcers may form.

Internally—Aperients, alteratives such as the *liver Treatment.
mixture; careful diet.

Locally—In early stages when there is much irritation, lead lotion or the borax and glycerine ointment (see Appendix).

Later-Citrine ointment.

A skin disease caused by a vegetable parasite. RINGWORM.

* Vide Appendix.

Attacks scrotum, abdomen above genital organs, inside of thighs, armpits, &c.

Appearance and symptoms.

It appears in rings of elevated hard pimples with red or healthy skin within their circumference. It is not moist like eczema, and it is apt to disappear from one place and to break out in other parts. It is attended with very annoying itching.

Treatment.

Remove hair from affected parts. Paint rings lightly with tincture of iodine. Apply *citrine or white precipitate ointment or carbolic oil. The crushed leaves or juice of the shrub known to the Fantees as INSEMPYI will be found a very soothing application.

CRAW-CRAW.

A form of scabies (itch) caused by an animal parasite. It is common amongst the natives, but rare amongst clean white men, unless they are accidentally infected by a diseased native, as it is very contagious.

It usually commences on the hands and wrists but it is very liable to infect other parts of the body also.

Appearance and symptoms.

It appears in the form of groups of papules which soon becomes pustular (containing matter), and subsequently scab and ulcerate—a result mainly due to the scratching of the patient. It is attended with intolerable itching.

* Vide Appendix.

A cure may be effected by washing the parts well Treatment. with carbolic soap in hot water, in which some soda or potash may with advantage be dissolved, and the application of sulphur or white precipitate ointment after each washing. The clothing which has been in contact with diseased parts must be boiled or baked and sprinkled with sulphur.

Rarely attacks white men unless they go about THE GUINEA barefooted.

Its favourite seat is the ankle, or the adjacent parts of the foot or leg.

It is attended with much inflammation and pain. Symptoms. It reveals its presence either by a small circular ulcer in the centre of which the head of the worm may generally be discovered as a yellowish white spot, or inflammation is set up in the tissues beneath the skin and an abscess forms, on the bursting or lancing of which, the worm will be found.

Preventive—Never go about barefooted and keep your Treatment. bath-room clean and dry.

Local—Hot poultices, hot sea-water foot baths in which the foot must be immersed for an hour or two frequently.

Secure worm as soon as practicable on a piece of stick, or roll of card, or sticking plaster. Continue poultices and wind out worm gently and gradually day by day until the slender hooked tail is drawn out.

The worm *must not be broken*, as severe inflammation and ulceration is liable to follow such an accident, and the ova dispersed into the tissues will develope to the future periodical trouble of the patient.

After the worm is removed a little simple ointment or carbolic oil will heal up the sore.

THE CHIGGER (SAND FLEA)

A minute insect which burrows beneath the skin near the toe nails or in the clefts between the toes.

Appearance and symptoms.

Its position will be discovered by the appearance of a little tumour or bag under the skin. This little cyst (in which the chigger is installed) is about the size of a very small pea, and of a slatey blue colour.

It itches abominably.

Treatment.

The cyst must be turned out, and it is essential that it should not be burst.

The natives are dexterous in performing this little operation which is done by undermining and turning out the chigger with its cyst by means of a blunt needle or the point of a knife.

If the cyst is ruptured, poultices and carbolic oil will be the best applications.

CHAPTER VII.

Yellow Fever.

YELLOW FEVER is :-

Characteristics.

- a. An epidemic continued fever.
- β. An infectious fever.
- γ. A fever of one paroxysm, death or recovery resulting.
- δ. A fever, one attack of which protects almost invariably against subsequent infection.

In these important features it differs in toto from the malarious fevers already noticed.

An altitude of 3,000 feet above the sea was supposed to limit its altitudinal range, but it has appeared 4,000 feet above sea level.

It would only confuse the non-professional readers symptoms. for whom this little book is written if I were to attempt to describe the different types of Yellow Fever, and their symptoms.

I shall therefore only enumerate briefly the more constantly observed and distinctive phenomena.

They are :- Sudden onset. Rapid course. Early symptoms resemble those of commencing remittent fever, but are marked by exceptionally severe headache, located in forehead and through the eyes. Agonising pain in small of back. Distress and pain at pit of stomach. Early vomiting, the vomit at first being watery and clear coloured. As fever increases the eyes become watery, red and small looking. The tongue is covered with a thick white fur marked by dark longitudinal lines, the edges and tip red. Bowels constipated. Urine scanty and likely to be suppressed. The vomit becomes bloody and bilious. Bleeding takes place from nose, mouth or bowels or from all three. Delirium is frequently present. This stage passes into that known as the stage of remission, in which the symptoms gradually moderate in severity, the stomach becomes less irritable, the urine reappears in good quantity, the brain clears and recovery supervenes, or, the symptoms become intensified, the vomit is black and bloody like coffee grounds ("black vomit") and the victim dies in a paroxysm of wild delirium or sinks into stupor, coma and death.

Treatment. Precautionary and Preventive.—Strict observance of sanitary rules. Attention to rules of diet as laid

down in Chaps. I. and II.—especially avoiding alcoholic spirituous liquor. If stimulants are used, drink good claret or champagne. Remove if practicable to the highest habitable ground. Neither give way to panic, imagining every ache the precursor of yellow fever, nor on the other hand be guilty of reckless and imbecile neglect of precautionary measures.

Keep the bowels open and get liver in good working order by an occasional dose of Antibilious Pills and Saline purgatives.

During Attack.—At the first symptom take a power-ful purgative, e.g.:

Eight grains of Calomel with twenty or thirty grains of Jalap, or two or three drops of Croton Oil. Expedite action of bowels by the injection of enemata of Castor Oil (one ounce) with Turpentine (half ounce).*

Induce action of skin by "Warturg's Tincture" or the Fever mixture.†

Check tendency to vomit by the application of mustard plaisters over pit of stomach, by frequent doses of Soda Bicarbonate with Chloroform and by sucking

^{*} Beat up the Oil and Turpentine with a teaspoonful of Soda Bicarbonate or Potash Carbonate and the yolks of two eggs or two ounces of mucilage of Gum Arabic and add slowly half to one pint hot barley or plain water.

[†] Vide Appendix.

small pieces of Ice. Obviate tendency to suppression of urine and relieve pain in back by hot poultices and fomentations to loins. Try the Cold Pack. Keep bowels open. Give food (Peptonized if at hand, or with pepsine) and stimulants in small quantities frequently. Give them by injection into the bowel if the stomach cannot retain them. Tendency to collapse must be met by immersion in hot strong mustard bath and by the administration of stimulants (alcoholic). After recovery change of climate for a time will be advisable.

CHAPTER VIII.

Cholera.

Cholera is not a disease of the West Coast of Africa, but is very prevalent in India and other parts of the Tropical East.

The best authorities say that cholera is not contagious, Characteristics. but as it appears in epidemic form, and as every member of the community within the limits of its outbreak is liable to be attacked, it concerns the non-professional public but little whether the disease is acquired by direct body from body contagion or by some more indirect mode of infection.

The fact that those in immediate attendance on or nursing cholera patients do not run any greater risk, if good sanitary measures are enforced, than others in the neighbourhood who are not brought into immediate contact with the sick, may, and should, however, inspire confidence, promote mutual assistance, and prevent panic or selfish cowardice.

Symptoms.

The attack may be very sudden, but usually is ushered in by uneasy sensations in the stomach and by diarrhoea.

As the disease discloses its nature, the purging becomes constant, copious, and of a peculiar colour—like the water in which rice has been boiled. Vomiting is constant and the vomit is like dirty or milky water. Cramps in the legs, arms, toes, fingers, and abdomen set in. The urine is suppressed or nearly so. The body feels and is cold (temperature in mouth or under arm below normal). The face is pinched—the tongue cold—the pulse becomes weak and is sometimes not to be felt at the wrist.

A further stage succeeds in which the purging and vomiting are less frequent and less copious but in which the powers of life tend to fail. The temperature of the body falls. Cold sweats break out. The face and the rest of the body have a livid appearance. The patient lies apparently insensible to his sufferings except when cramps painfully arouse him.

In this stage death usually occurs or it gives place to a stage of re-action in which the functions of the kidneys and of the liver become slowly re-established—the temperature rises and the patient makes a rapid or gradual recovery.

Treatment

Precautionary .- Sanitation .- All agree that the ex-

danger and may spread the disease. Therefore all such should be received into vessels containing Carbolic Acid or other disinfectant and immediately buried deep or safer destroyed by fire. Any diarrhea during a cholera epidemic should be restrained by Chlorodyne or Bismuth and Laudanum.

During the Attack.—Chlorodyne, forty drops should be given and repeated in two hours if purging and cramps persist. Subsequently it may be given in smaller doses, ten drops, every two or three hours.

If the stomach rejects the Chlorodyne try the lead and opium pills of which two may be given every two or three hours until some effect is produced. If the vomiting is unmanageable inject Laudanum, thirty or forty drops in an ounce of warm starch into bowels and repeat as symptoms demand. Bicarbonate of Soda and Bismuth, with three or four drops of Chloroform, may be administered occasionally to allay the gastric irritability and restrain the vomiting. Ice to suck should also be given if available. Mustard

Note.—The injection under the skin of Morphia, &c., is perhaps the best mode of administering opium, but is seldom practicable for non-professional persons.

plaisters or Chloroform on linen should be applied over pit of stomach and hot fomentations kept on continuously over loins and abdomen. Do not give strong alcoholic stimulants unless the patient is sinking. Try champagne iced and let patient wash down a little of the Soda and Bismuth with it. In collapse (sinking) immerse patient in hot mustard bath, or apply flannels wrung out of hot water and mustard over the body and give brandy by mouth or bowels.

APPENDIX.

The Clinical Thermometer.

The Clinical Thermometer should be self-registering. The index should not be able to descend into bulb. Before using the thermometer see that the top of index is at or below 98°.

The temperature is best taken under the tongue with the mouth closed but may be taken under the armpit. The thermometer must be kept in the mouth for at least two minutes or in armpit for five minutes. The point on scale to which top of index has reached will indicate the temperature of the body.

The normal temperature in health should not exceed 98°.5 Fahr.; 99° Fahr. indicates impending mischief; and 100° Fahr. is fever.

The Cold Bath in Fever.

I have not mentioned this agent in my previous remarks, as it is undoubtedly a dangerous remedy in unskilled hands. However, there are cases where I believe that an unprofessional man would be fully justified in using it, as a resource when other remedies had been applied and had failed, and when the life of a comrade was in extreme danger, and no professional assistance was within reach.

Such cases are those where, in spite of every other mode of treatment, the temperature remains very high —105° Fahr. or higher—for a considerable period, and where the strength is fast failing in consequence.

In such an emergency, I advise that a large tub be filled as full as possible with cold water. The patient is to be lifted into this, his body being submerged as completely as may be practicable, while his head is douched with cold water. He should remain in the bath from ten to thirty minutes according to its effect on him, which is to be judged by his pulse and sensations.

On removal from the bath the patient's body is to be rubbed down quickly with a warm towel or sheet, and he is then to be put to bed. He may be covered with a blanket, but clothes should not be heaped on him immediately after the cold bath.

This treatment often affords the only hope of saving life, and snatches the sufferer out of the very jaws of death. The bath usually reduces the temperature by two or three degrees. It must be repeated if the temperature again rises to, or nearly to, the height at which it stood before the bath.

Of course, so powerful a remedy must be employed with all caution, but I consider that it should be tried in such cases as I have indicated, when otherwise death would be inevitable.

The Outfit.

I.—Articles required by Government employés and by others for whom they are not provided by their employers.

BEDSTEAD AND BEDDING; including blankets, pillows, &c.

SHOWER-BATH.

EASY-CHAIR.

LAMP.

CULINARY UTENSILS.

DINNER SERVICE.

KNIVES AND FORKS.

FILTERS. One for quarters, to hold half-a-gallon; and one pocket-filter for use when travelling. Be careful to get filters which can be easily cleansed and reno-

vated by yourself. Charcoal, or charcoal and spongyiron, or carferal are the best filtering media.

- II.—Government employés will be wise in providing themselves with the drugs marked with an asterisk.* These
 and the other medicines will be required by missionaries and others for whom medical assistance is not
 provided and may often be inaccessible.
 - * One or two Self-registering Clinical Thermometers.
- * Quinine: \(\frac{1}{4}\) to 1 oz. Also 100 Quinine pills, two-and-a-half grains in each, and made up with acid so as to be readily soluble in the stomach.
- * Chlorodyne: 2 oz. (Collis Browne's.) Dose 5 to 30 drops.

CHLOROFORM: 1 oz. Dose 1 to 3 drops.

CHLORIC ETHER: 2 oz. Dose 10 to 30 drops.

SAL VOLATILE: 2 oz. Dose 20 to 40 drops.

TINCTURE OF GINGER: 2 oz. Dose 5 to 20 drops.

* WARBURG'S FEVER TINCTURE: 4 oz. Dose 4 to 2 oz.

Liquor Ammoniac Acetatis (Concentrated): Dose one tea-spoonful.

Soda Bicarbonate: 2 oz. Dose 10 to 40 grains.

Potass Nitras (Nitre): 2 oz. Dose 5 to 10 grains.

Sweet Spirits of Nitre: 2 oz. Dose 10 to 30 drops.

Bismuth Subnitrate: 2 oz. Dose 10 to 20 grains.

Note.—The smaller dose is a moderate, the larger a full dose.

JALAP: 1 oz. Dose 10 to 30 grains.

Rhubarb: 2 oz. Dose 3 to 10 grains.

CALOMEL: 1 oz. Dose 1 to 5 grains.

Pills of Lead and Opium: 2 dozen. These should be of four grains each, prepared as ordered in the British Pharmacopæia. One may be taken every three or four hours, in dysentery.

CHLORIDE OF AMMONIUM: 6 oz. Dose 15 to 30 grains.

IPECACUANHA: 2 oz. Half might be made up in separate powders, each of twenty grains.

TINCTURE OF IODINE: 1 oz. For external use only.

* LAMPLOUGH'S PYRETIC SALINE: 2 bottles.

Juice of Taraxacum: 1 lb. Dose ½ oz.

- * ONE MEASURE-GLASS: 2 oz. size.
- * ONE DROP-MEASURE-GLASS.

ONE SMALL SCALES AND DISPENSING WEIGHTS.

* "Benger's" Peptonised Beef Jelly: 24 tins.

Pepsine, "Squire's": 1 oz.

FORMULÆ.

Antibilious Pills, 4 dozen. The following is my prescription:

Take of

CALOMEL,	Grains	24
IPECACUANHA,	,,	12
EXTRACT OF RHUBARB,	,,	72
EXTRACT OF HENBANE,	- ,,	36
OIL OF LAVENDER,	Drops	48

Mix well, and divide into 48 pills, coated with Gelatine or Albumen, of which two or three may be taken when required.

FEVER MIXTURE.

Take

Nitre, 40 Grains.

Liquor Ammoniæ Acetatis (concent.), 1 ounce.

Sweet Spirits of Nitre, 3 drachms.

Chloric Ether, 3 drachms.

Water, 6 ounces and 2 drachms.

Dissolve the Nitre in the water, and add the other ingredients.

Dose-Half an ounce (one table-spoonful) every hour till skin sweats freely.

LIVER MIXTURE.

Take

Chloride of Ammonium, 2 drachms.

Juice of Taraxacum, 1 ounce.

Chloric Ether, 2 drachms.

Water, 7 ounces.

Dissolve the Chloride of Ammonium, and add other ingredients.

Dose—An eighth part three times in the day.

CITRINE OINTMENT.

SULPHUR OINTMENT.

R Ung. Hydrarg. Nitrat. 3 ii.

R Ung. Sulphur

Glycerini 3 iii. Adipis. 3i.

3 ii.

P.B.

IN FOR ECZEMA. Apply a small quantity twice Use as directed .-daily.

FOR CRAW-CRAW. Vide Chap. VI.

WHITE PRECIPITATE OINTMENT.

R Ung. Hydrarg. Ammon. 3 iii. Olei Amygdalis 3 iii.

M FOR RINGWORM AND CRAW-CRAW.

BORAX OINTMENT.

R Borax, gr. 20.
Glycerini.
Olei Amygdalis :: 3 ii.
Vaselini 3 ii.

m For Eczema.—In early stages.

The mixtures may be made up when required.

The Ointments and Pills should be made up by a chemist and put up in air-tight pots.

These medicines may be conveniently arranged in a small chest or box, and each bottle or package should be distinctly and carefully labelled with its name, action, dose, and mode of administration or application.

THE END.

