

Practical observations on fever, dysentery, and liver complaints : as they occur amongst the European troops in India : with introductory remarks on the disadvantages of selecting boys for Indian military service / by George Ballingall.

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Ballingall, George, 1780-1855.
Royal College of Physicians of Edinburgh

Publication/Creation

Edinburgh : Printed by Balfour & Clarke, for David Brown and A. Constable, 1818.

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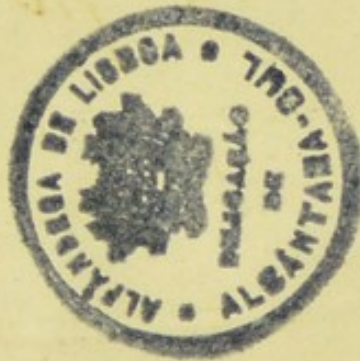
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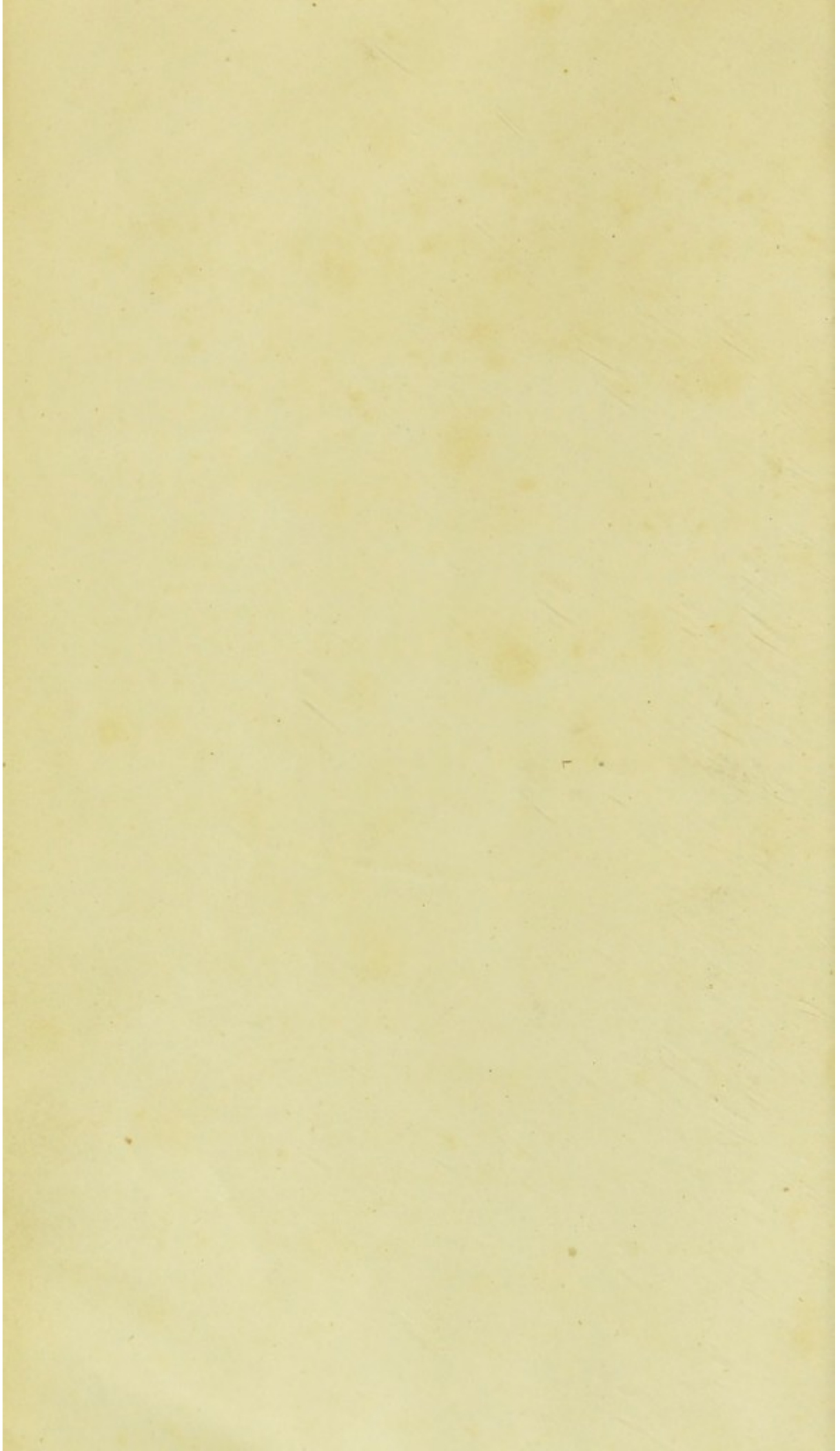
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PRACTICAL PNEUMONIC

AND DYSENTERY

BY DR. J. M. H. J. VAN DER WOUDE



PRACTICAL OBSERVATIONS
ON
FEVER, DYSENTERY,
AND
LIVER COMPLAINTS.

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EDINBURGH,
WILLIAM AND ANNE CLARKE, PRINTERS,
1824.

PRACTICAL OBSERVATIONS

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FEVER, DYSENTERY,

AND

LIVER COMPLAINTS.

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PRACTICAL OBSERVATIONS
ON
FEVER, DYSENTERY,
AND
LIVER COMPLAINTS,
AS THEY OCCUR AMONGST
THE EUROPEAN TROOPS IN INDIA;
WITH
INTRODUCTORY REMARKS,
ON THE DISADVANTAGES OF SELECTING BOYS FOR INDIAN
MILITARY SERVICE.

Illustrated by numerous Tables and Cases.

BY
GEORGE BALLINGALL, ESQ.
SURGEON TO HIS MAJESTY'S THIRTY-THIRD REGIMENT OF FOOT.

*quæque ipse miserrima vidi,
Et quorum pars magna fui.*
VIRG. EN. L. II.

EDINBURGH:
Printed by Balfour & Clarke,
FOR DAVID BROWN, AND A. CONSTABLE AND CO. EDINBURGH;
AND ANDERSON AND CHASE, AND BLACK AND PARRY,
LONDON.
1818.

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London: Printed for J. Johnson, in Pall-mall.
1818.

EDINBURGH:
Printed by Ballantyne & Co.
FOR DAVID BROWN, AND A. CONSTABLE AND CO. EDINBURGH;
AND ANDERSON AND CHASE, AND BLACK AND PARRY,
LONDON.
1818.

TO HIS ROYAL HIGHNESS

EDWARD,

DUKE OF KENT AND STRATHEARN, K.G. & G.C.B.

FIELD MARSHAL OF THE FORCES,

GOVERNOR OF GIBRALTAR,

COLONEL OF THE 1ST (OR ROYAL SCOTS) REGIMENT OF FOOT,

&c. &c. &c.

SIR,

The following observations having been made during a period of seven years service in India, as Assistant-Surgeon to the 2d Battalion of your Royal Highness' Regiment, I was induced to solicit permission to submit this little Work to the public, under the sanction of your illustrious name; and your Royal Highness' gracious condescension in complying with my wishes on this subject, has made a most gratifying addition to the favours already conferred on

Your Royal Highness'

Most obedient and devoted humble Servant,

GEO. BALLINGALL,

Surgeon, 33d Regt.

NOTTINGHAM BARRACKS,

24th August, 1818.

TO HIS ROYAL HIGHNESS

EDWARD,

DUKE OF KENT AND STRATHMORE, K.G. & G.C.B.

FIELD MARSHAL OF THE FORCES,

GOVERNOR OF GIBRALTAR,

LIEUTENANT OF THE 1ST (OR ROYAL SCOTS) REGIMENT OF FOOT,

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Your Royal Highness,

Most obedient and devoted humble Servant,

GEO. BALLINGALL,

Surgeon, 284 Regt.

NOTTINGHAM BARBACAN,
24th August 1818.

TO

JOHN BARCLAY, M.D. F.R.S.E.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH,

LECTURER ON ANATOMY AND SURGERY, &c. &c.

MY DEAR SIR,

If I have been any ways successful in developing the nature of those Fluxes so destructive to European Troops in India, it is chiefly owing to the advantages of an Education under you; and to my having acquired, while under your tuition, a portion of that taste for Anatomical Investigation by which you are so eminently distinguished. Permit me, then, to take this public opportunity of acknowledging my obligations to you,—of expressing the high sense I entertain of the value of your friendship,—and of assuring you, that I ever am,

MY DEAR SIR,

Your most faithful and affectionate

Friend and Pupil,

GEO. BALLINGALL.

EDINBURGH,

12th October, 1818.

JOHN BARCLAY, M.D. F.R.S.E.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH,
LECTURER ON ANATOMY AND SURGERY, &c. &c.

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MY DEAR SIR,

Your most faithful and affectionate

Friend and pupil,

GEO. BARRINGTON

LONDON:
THE CASE, 1782

PREFACE.

THE following observations were chiefly written during the progress of a voyage from Madras to England, upwards of three years ago, at a time when a recent and extensive acquaintance with the diseases of India had strongly impressed my mind with the peculiarities they exhibit. Various avocations, and much ill health, have hitherto contributed to prevent my submitting them to the public, although originally written with that intention.

Writing within the limits of a ship; secluded, for a time, from all intercourse with the medical world; and with a library extremely circumscribed, it would have been impossible for me to have attempted any thing like a systematic account of the different diseases

of which I have treated ; it has therefore been my study to confine myself solely to the results of my own experience, referring occasionally to living practitioners, and unpublished documents, in preference to works of more general and easy access.

The subject of the introductory paper is one of extensive interest to the army ; and at this time becomes more peculiarly important, when the return of tranquillity in Europe gives us an opportunity of making a selection of troops to garrison our foreign possessions, and when the hostile disposition of some of the Indian chiefs will probably induce our Government to add to the extent and efficiency of the European establishments in that quarter. In the Appendix to this paper, I have been enabled, through the kind and disinterested friendship of Dr. Berry, to introduce an extract from the public proceedings of the Medical Board at Madras—a Board at which the late venerable Dr. Anderson then presided as physician-general. To those who know the length of his services in India, and the

extent of his observation, it is unnecessary to point out the value of a document sanctioned by his name; and to me it was most gratifying indeed, after having brought my observations on this subject to a conclusion, to find my opinion of the inexpediency of selecting boys for India, supported and confirmed by a reference to the most respectable authority which could be adduced.

A register of deaths, similar to what I have made out for the Second Battalion of the Royals, appears to me the most unexceptionable mode of ascertaining the description of troops best calculated for any given service; and I have only to regret that, in consequence of my being obliged to leave India from ill health, and to bring away my papers in an unfinished state, this register is much less perfect than I could have wished it, particularly for the two last years.

The Second Battalion of the Royals, which sustained so heavy a loss on its first arrival in India, has, for several years past, been one of the most effective regiments in that country;

but it is only those who witnessed the distress of this corps at Prince of Wales' Island, and at Wallajahbad, who can properly estimate the extent of suffering, and the expence of human life at which it was brought to this state of efficiency. I reckon it my good fortune to have accompanied the regiment through all these sufferings; and I reckon myself still more fortunate in having been honoured throughout by my brother officers with a share of confidence, to which neither my years nor my rank in the service could have given me any claim.

My observations on Fever will be found to illustrate and confirm those views of the disease which seem to be every day gaining ground in Europe, and will, I hope, induce young practitioners to carry these views along with them to India. I wish them to be persuaded that all the evils attendant upon this disease, as it occurs in that climate, are referable to the existence of inflammation in some of the important organs of the body; and that if this is overlooked, and evacuations ne-

glected at the commencement of the disease, the golden opportunity of being useful to our patient is for ever lost; the sins of omission (as an eminent lecturer has said on another occasion) are here infinitely greater than the sins of commission.

My views of Dysentery are, I believe, somewhat peculiar; and my object has been to point out the urgent necessity of a discriminating attention to the nature of the evacuations, in order to a successful treatment of this disease; to warn young men how little they will find the Dysentery of India corresponding with the description given of it in Europe; and to prevent them from blindly adopting a very prevalent idea, that all fluxes in India have their origin in diseased liver, and are to be cured by mercury alone, without adverting to those local appearances in the lower part of the intestinal canal, which in one form of the disease ought to be the chief object of attention. The dissections necessary to give us just ideas of the nature of Dysentery are now more frequently made, notwithstanding the disagree-

able circumstances under which anatomical investigations are prosecuted in the climate of India ; and when we find that, of all the deaths occurring in that country, three-fourths are attributed to Dysentery, it is to be hoped that future inquirers will not relax in their endeavours to arrive at the most just views of its nature, and the most successful mode of treatment.

The paper on Liver Complaints is probably more limited than many would expect, but it will be seen by the returns I have given, that the deaths distinctly referred to disease of the liver, are not so numerous as is generally believed in Europe ; and as I have thoughts of a more extended work on this subject, I leave it for the present with less regret. My object has been, in the few observations I have made on Hepatitis, to paint this disease as chiefly dangerous, from being overlooked at its commencement, and meeting with inefficient or improper treatment in its earlier stages. My wish has been to direct the attention of practitioners to those symptoms which character-

ise the disease when pain is not urgent, and to induce them to extend to it that active practice which they would not hesitate to adopt in other organic inflammations.

In treating of the remedies employed in Fever, Dysentery, and Liver Complaints, I have classed them in some measure according to the succession in which I have been in the habit of employing them ; and have, in some degree, proportioned the extent of my observations to the importance which I am disposed to attach to the different classes of remedies.

The cases contained in the Appendix are taken from a collection of upwards of four hundred, of which I have preserved notes; and I have made the selection numerous, in order to give a general and extended view of the different diseases, without reference to my own individual opinions or practice : for this purpose, also, a considerable proportion of fatal cases has been selected. In many instances I have preferred the cases of non-commissioned officers, and intelligent privates, as being most likely to give a faithful and distinct ac-

count of those symptoms and feelings which do not fall under the cognizance of a medical observer. The whole of the reports are my own, with the exception of a few of those dated from Masulipatam, which were made by Dr. Annesley, formerly garrison surgeon at that place*. I have been uniformly anxious that my cases should derive their importance, not from novelty, but from their extreme frequency, and have kept in view the following sentiment of an eminent writer: "Whoever proposes to publish useful cases, must have a full dependence on the candour and liberality of his readers, and forget those who lie in wait for occasions of rancorous criticism."

The table forming the Appendix No. 5, which contains much interesting and valuable information on the comparative healthiness of stations, and the proportion of diseases

* I have lately been highly gratified at seeing the compliment paid to this meritorious surgeon, by His Excellency Sir Thomas Hislop, in the General Orders issued to the army under his command.

prevalent at each, is a part of the official communication made by the Medical Board to the Government of Fort St. George already referred to, and for this table I am wholly indebted to Dr. Berry.

Should the following pages be the means of supplying, in any degree, a want which I greatly experienced on my arrival in India; and should they be the means of directing the attention of young men destined for that service to the proper objects of study and research, my views will be fully answered; and I now submit them to the Public, hoping that my opportunities of observation, and severe personal suffering from every one of the diseases I have described, will at least entitle me to a patient hearing; and trusting also, that the circumstances under which this work was written, will apologize for defects of which I am abundantly sensible. Some of these might perhaps have been removed by a careful revision, but considering the length of time which has elapsed between the writing and publication of

this volume, I was averse to any alteration, fearing that it might lose in truth and fidelity of expression, more than it would gain in point of elegance and polish.

EDINBURGH,
12th October, 1818.

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Page 49, line 16, for "faciis hippocratica" read "facies hippocratica."
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OBSERVATIONS
ON THE
SELECTION OF YOUNG MEN
FOR
MILITARY SERVICE IN INDIA.

WHEN the destructive diseases of tropical climates once gain footing in a regiment or an army, the devastation they occasion is melancholy to contemplate. The task of a medical man becomes peculiarly irksome when he finds his most strenuous exertions insufficient to arrest the progress of disease; and when he sees remedies, in which he has hitherto been led to place confidence, used without any effectual relief, he begins to contrast the formidable nature of disease with the limited powers of medicine, and to see, in a very striking point of view, how much his success in diminishing the fatality of tropical climates must depend upon

prevention rather than on cure. Visionary schemes have been proposed for lessening the mortality of European troops, by attempting to reduce their habits previous to their arrival in tropical regions, for which purpose blood letting, purging, courses of mercury, &c. have been proposed; but even those who have suggested such measures with apparent confidence, have never, I believe, given them a trial sufficiently extensive to enable us to judge of their success: and however beneficial they might be found in particular cases, yet, I apprehend, that if generally or indiscriminately adopted, they would produce any thing but a diminution of the evil;—for one that would be benefited by the general adoption of such practices, two would, I fear, be seriously injured. Blood-letting, purging, and mercury, the most powerful resources of the healing art, are not to be employed at random, or resorted to upon frivolous occasions.

“ ——— The powerful remedies of pain
 (Since pain in spite of all our care will come)
 Should never with your prosperous days of health
 Grow too familiar; for by frequent use
 The strongest medicines lose their healing power,
 And even the surest poisons their's to kill.”

ARMSTRONG.

Men naturally say,—If such measures are necessary for the prevention of disease, what treatment

must be requisite, or what are we to depend upon when actually overtaken by it? The horrors on approaching a tropical climate would thus be multiplied tenfold, and the general depression of spirits thus occasioned would add not a little to the evil to be apprehended. On the contrary, let us select, as far as possible, men at that time of life and of such habits of body as we know to be least subject to disease in these climates; let us inspire them with confidence, and endeavour to convince them that they are fitted by nature with constitutions calculated to resist the destructive effects of the climate in which they are destined to serve; and that so long as they refrain from habits of intemperance and irregularity, they have comparatively little to fear from their situation: instead of debilitating men both in body and mind, by adopting measures of which the result is at least doubtful, let us turn our attention to the selection of troops best calculated for service in particular climates.

On this subject some melancholy errors exist; and of these there is none in my opinion more fatal, than the prepossession which leads to the selection of boys for service in the East Indies. My attention has been strongly attracted to this point by having proceeded to that country with a regiment composed almost entirely of very young men, and by the painful feelings I subsequently expe-

rienced at witnessing the untimely end of many hundreds of these youths—seeing men, who at a more mature age would have been formidable to the enemies of their country, “falling without their fame in the first of their fields,”—falling victims to a climate to which they ought long to have been strangers, and victims to an opinion of their peculiar aptitude for service in that climate*.

* In April 1807, the 2d battalion of the Royal Scots, consisting of a thousand men, embarked for the East Indies, and before five years had elapsed, three hundred and ninety-three of these men had fallen a sacrifice to the climate, and one hundred and seven had been rendered incapable of farther service. This is a loss considerably greater than what regiments in that country usually sustain; and although a long voyage, defective accommodation at Penang, and unfavourable weather on landing there, were circumstances which no doubt added to the mortality in the case of the Royals, yet I apprehend that some peculiarity in the composition of the regiment must be considered as its principal source; and this peculiarity will, I think, be found in the extreme youth of the men. In this respect we differed farthest from other regiments on the same service, and to this I have no hesitation in ascribing a large share of the mortality which occurred. The Duke of Kent's paternal solicitude for the welfare of his regiment, is well known to every officer who has had the honour of serving in it; the most unwearied attention to the discipline and interior economy of the regiment was uniformly paid by Major Generals Stewart and Conran, Lieutenant Colonels M'Kellar and M'Cleod, who successively commanded the 2d battalion; and were it becoming in me to enlarge on the talents and assiduity with which the medical duties of the regiment were conducted, I could here produce the most favourable testimonials from the Medical Board at Madras. In all these circumstances, so essential to the health and well being of a regi-

Every person who has had even the most limited experience of India, must know how peculiarly unfavourable it is for training young soldiers to habits of activity and military discipline, while with daily opportunities of witnessing the irregularities and frequent intoxication prevalent amongst the older soldiers in that country, it cannot be supposed they will long refrain from a participation in their excesses. Men arriving in India unacquainted with military discipline and the duties of their profession, must either be destined to remain comparatively ignorant of these duties, or must submit to be taught them at the utmost risk to their health ; it is therefore surely very inconsistent to remove men at this early period of life from their native climate, which admits of abundance of salutary exercise at all hours of the day, to a country where the period of exercise is necessarily limited to a few hours in the morning and evening, and where the remainder of the day is too generally devoted by the soldiers to drinking and dissipation. It is really lamentable to think, that men whose habits are yet to be formed, and who are capable of being modelled according to the examples set before them, should be removed from a

ment, the 2d battalion of the Royals was inferior to none ; and the havoc made in its ranks by the climate of India, is only to be accounted for by the selection of so large a proportion of boys to fill them.

country where their limited allowance, and the high price of spirits, restricts them from excess, to a country where the most intoxicating and deleterious spirits are to be had for a trifle, and where example and inclination, powerfully operating on young minds, so naturally lead them to adopt the destructive habits of their predecessors ; men who in the climates of Europe might become healthy, vigorous, and active soldiers, are here stunted in their growth, brought up in habits of sloth and intemperance, and hurried to an early grave, the victims of indolence and dissipation. The habitual use of ardent spirits in retarding the growth is well known* ; and when boys are sent to a country like India, where excessive drinking is considered amongst themselves as a proof of superior manhood, and where the utmost vigilance of their officers cannot prevent it, we may readily believe that they will never attain that size and physical strength which we might reasonably expect them to do in a more congenial clime. The consequence naturally is, that before they become efficient as soldiers, and capable of making any good use of a firelock, one half of them is consigned to the grave, and the other become confirmed drunkards. Let it not be supposed that I am here pourtraying imaginary evils, or conjuring up chimeras which have

* See Monro on the Bones.

no existence ; I am simply stating what I have but too often witnessed : Many of these young men have I seen, before they had attained their twentieth year, punished for repeated intoxication, and many of them also have I seen at this early period of life, lying in hospitals victims to the most obstinate forms of venereal disease, a natural consequence of the facility of intercourse with native prostitutes. All these evils would, in my opinion, be greatly and obviously alleviated by sending out older men. Men, after a certain time of life, are more disposed to look into futurity, their passions are in some measure blunted, they do not enter with the same heedless velocity into a participation of the destructive habits they may have occasion to witness, and are not apt to injure themselves by many of the frivolous and mischievous enjoyments of younger men. Soldiers accustomed to the active exertion usual in temperate climates, would consider the common duties in India an agreeable relaxation ; accustomed hitherto to do every thing for themselves, they would feel more independent of the assistance of the inhabitants, and the European barracks would not be crowded, as they now are, with hordes of the most profligate and abandoned of the natives, ready, in the first instance, to assist the soldiery in devising and employing the most ingenious stratagems for procuring liquor, and afterwards ready to plunder and rob them while

under its influence. Soldiers accustomed to habits of regularity and temperance would find the regulated allowance of spirits adequate to their desires; and men, at that time of life when their passions begin to be regulated by prudence, would be less liable to suffer from indiscriminate connexion with native women; they would also produce fewer of that spurious breed of half-casts, a race which, in general, possesses neither the characteristic vigour of the European nor the patient virtues of the Asiatic, and the disposal or employment of which, must one day or other become a serious consideration to the government of India. The inattention of soldiers to every thing which concerns their health, is almost proverbial; but old soldiers, when afflicted with disease, have many resources within themselves, and many ways of assisting their sick comrades of which younger men are totally destitute. Boys, on the other hand, when stretched on a sick bed, become the most helpless beings in existence, a burden to themselves, and an endless source of trouble to their comrades: Accustomed hitherto, when ill, to be tended night and day by an affectionate parent, they are dissatisfied with that portion of attention for which an old soldier is grateful; they are apt to fancy themselves neglected; they droop, despond, and die; they are, in short, neither capable of taking care of themselves when well, nor in any way aiding themselves when sick;

they neither know how to shun the causes of disease, nor to alleviate its attacks.

Let us now for a moment consider this subject in an economical point of view, in which light it appears peculiarly important. Every soldier who becomes effective in India is known to cost the government a very large sum. I have heard it estimated at upwards of one hundred pounds Sterling, and if we consider the expence of conveyance, and make allowance for the number who die in the first twelve or eighteen months after their arrival in the country, this estimate will not perhaps be considered much overrated; surely then, it becomes us to take care that India is supplied with men of an efficient description, men least likely to die in the seasoning, and likely to become soonest fit for the purposes of warfare in that climate. I have myself known nearly two hundred boys left in garrison, as unqualified to participate in the field service upon which the regiment they belonged to was suddenly ordered; and it will, I expect, be readily granted, that a soldier, enlisted at sixteen or eighteen years of age, and dying in the course of two or three years after, can never have become in any degree available to the service, nor have in any shape repaid the State for the expence of his bounty, training, and equipment, much less can he have reimbursed the Government

for the expense attendant on his transportation to the distant regions of India.

Having long maintained the sentiments I now hold upon the impolicy of selecting boys for Indian service, I had many opportunities while in that country of discussing the subject with those of an opposite opinion. My reasonings were chiefly answered by referring me to individual cases, by telling me to look at the right hand man of this, or the other company, who came out quite a boy, and to observe the size he had now attained. A few cases of this kind will not however establish any general principle: where a large majority went out young and growing, it might naturally be expected that some would survive to occupy those situations of distinction: and a man's being the tallest of an under-sized company, or an under-sized battalion in India, only proves, that if brought up in a more congenial climate, and under more favourable circumstances, he would probably have been fit for the right hand man of a taller company, or a taller regiment. How few are the numbers who attain their full size and vigour in India, compared with those whose memories are consigned with their bodies to the grave? Those who have shot up to manhood under an officer's eye, and who are continually before him, are well recollected, while their less fortunate comrades, the victims of disease, are speedily forgot-

ten; and this circumstance I believe to be the principal source of another opinion equally common, and equally erroneous, viz. that the best men are most apt to fall a sacrifice to climate. A good man who is considered a loss to his company or his regiment, is impressed upon his officers' recollection, while one who has nothing either in his appearance or character to make a favourable impression, is perhaps considered an eye-sore while he lives, and is speedily forgotten when he dies. It is, indeed, easy to see one circumstance which leads to the loss of many valuable men: this is a fear of forfeiting that very character for which they have been distinguished, and a consequent aversion to report themselves sick, by which their complaints often gain head, and are beyond the reach of medicine before assistance is applied for. There can, however, be no question but that men of sound constitutions, and sober habits, are infinitely more likely to resist the ravages of climate and disease than men of an opposite description. Hard indeed would be the lot of good men were they to find disease and death the result of regularity and temperance, and to see health and long life the consequences of riot and debauchery. The habits prevalent in every country, and which are always, to a certain extent, influenced by the climate, must have due weight in determining upon the description of men best calculated to resist its in-

fluence ; and wherever bad habits are already prevalent, they are much more likely to be adopted by young men at the age of eighteen or twenty, than by well trained soldiers at a more advanced period of life. Men at the age of twenty-five, thirty, or upwards, are capable of as much, or perhaps more service in India, than they would be after the same age in Europe ; for, in the former, they are less liable to suffer from pulmonary and rheumatic affections, which prove so destructive to elderly men in our variable climate ; while, on the other hand, I am not aware that there is a single disease peculiar to advanced life, which is likely to be aggravated by residence in a tropical climate. Such climates are certainly calculated to bring on premature old age, particularly if combined with thoughtlessness and dissipation, but, on the other hand, if combined with due management, may be considered perhaps favourable to the decline of life.

With a view of bringing the foregoing reasoning to the test of experience, and of shewing the description of men who are chiefly obnoxious to disease in India, I have formed a register of deaths, according to the annexed form, in the regiment in which I had the honour to serve, and the results of this register exhibit a melancholy picture of premature suffering.* From an inspection of the

* See Appendix, No. 1.

tables, exhibiting an abstract of the register of deaths in the 2d battalion of the Royals, it will appear, that during the first year of the regiment's service in India, out of two hundred and six sufferers, whose ages are noted, one hundred and sixty, or upwards of three-fourths, were under twenty-five years of age. In the six following years, when the seasoning of the regiment might be considered over, out of three hundred and thirty-three deaths, we have two hundred and sixty-six, or about four-fifths, under twenty-five years of age. Again, during five months of the year 1814, when a great mortality occurred in a wing of the regiment then in the field, it appears, that of forty-three men who died, thirty-seven, or nearly six-sevenths, were under twenty-five.* This appears to me to prove, as far as the experiment of a single regiment can prove, that the diseases prevalent in India fall peculiarly heavy upon young men; and if a deduction be made for men worn out by age, who could not have been long livers in any climate, and for those carried off by diseases, no ways attributable to the country, but peculiar to advanced life in all parts of the world, such as apo-

* The loss of a smaller proportion of young men in the first of the three periods here noted, seems to shew, that for a certain time the energy of a youthful constitution overcame every obstacle, while, as this energy diminished, and bad habits increased, a larger proportion of young men fell victims to disease.

plexy, dropsy, rheumatism, &c. the proportion will still appear more in favour of elderly men.

Candour here requires me to state, that of the men who composed the battalion, and of the recruits who subsequently joined, up to the period of my leaving the regiment, more than two-thirds were under twenty-five years of age. This makes the disproportion appear less remarkable, but still the disparity is sufficiently striking to make the subject worthy of our most serious consideration ; and the total number of young men swept away in the course of a few years, five hundred and thirty-nine, totally lost to the service, to their friends, and to their country, solely from the effects of the climate, and the habits acquired in it, gives us, at least, strong reason to suppose that they were not the description of men best calculated to resist the baneful effects of an Indian climate.

The form of register I have adopted might certainly be improved for medical purposes, particularly in the descriptive part ; but from not having commenced it until many of the individuals were dead, and to me in a great measure forgotten, I was under the necessity of having recourse to such particulars as were to be found noted in the description book of the regiment. The first column in which the companies are registered, was filled up with a view of shewing whether the difference of treatment the men experienced in the different

ships during the passage from England had any influence on the subsequent mortality. This could only be conspicuous during the first months of their residence in India; and, upon comparing the loss sustained by the different companies for the first twelve months, I find the result does not warrant any important conclusion on this subject. The difference in point of living and treatment indeed, was too trifling to lead to any very marked difference in the ensuing loss, but in cases where there is any remarkable difference in the length of the voyage, or in the accommodation or treatment of troops on board of different ships, it will, without doubt, have a conspicuous influence on the subsequent mortality.

The columns descriptive of the age and size being copied from the regimental books, may be considered perfectly accurate; the column descriptive of the make or figure, was filled up by Mr. Brodie, then adjutant of the 2d battalion Royal Scots, and now a captain in the regiment. To him I have to express great obligations for his assistance in enabling me to fill up this register. I have to regret the imperfection of the column in which the diseases are registered: this was unavoidable, from the circumstance of many of the men dying absent from the regiment, whose diseases could not be readily ascertained. The column of remarks I intended to have occupied chiefly with observations

on the habits of life of the individuals, shewing what proportion the deaths of regular temperate men bear to those of the drunken and dissipated. Recollection, however, did not serve to fill up this column with any tolerable degree of accuracy, and it remains too incomplete to afford any well founded result ; but were such a column properly completed, it would, I apprehend, evince, in a very striking point of view, how much irregularity and intemperance contribute to augment the mortality of tropical climates, and might perhaps in some degree ultimately tend to deter soldiers from that vicious indulgence in spirits, so ruinous to their character, discipline, and health. It is much to be regretted that I have not now the means of ascertaining the total number of cases treated during the period embraced by the annexed returns, which would have rendered them much more satisfactory. I can however take upon me to assert, that the average daily number of sick and convalescents in the 2d battalion of the Royal Scots, during my service with it in India, was from one hundred and fifty to two hundred.

I shall now conclude by recommending the adoption of similar registers in all situations where troops are much exposed to disease, as the best means of ascertaining the description of men most obnoxious to its attacks, and by expressing a conviction, that if attention were paid to the selection

of older men for intertropical service, we might reasonably expect a very important diminution in the mortality. I am almost sanguine enough to hope, that, in the words of Dr. M'Lean, (with whom I perfectly coincide in his observations on this subject,) " a period would thus be put to the devastation of the climate, and scenes, the recollection of which shocks humanity, would in a great measure cease*."

* M'Lean's Mortality at St. Domingo.

FEVER.

FEVER does not, in general, occupy the most prominent part in the sick returns of the Indian army; but, when we reflect upon the number of invalids to be met with in that country, who date the origin of their protracted sufferings from an attack of fever; when we see men travelling from one station to another, and ultimately obliged to return to Europe in search of that health, which, previous to the attack of fever, was never known to be impaired; in fine, when we consider the number of visceral obstructions, the consequences of this disease, we are induced to look upon the sequelæ of fever as by far the most formidable part of it, and to inquire, whether something has not been deficient in the treatment of its earlier stages. From inquiries of this nature, I have often been led to believe, that the treatment which has proved sufficient to prolong a patient's existence has by no means been competent to the restoration of his health; that the practice which has, in the first

instance, barely sufficed to rescue him from the grave, has ultimately been the means of prolonging his distress, and has snatched him from the jaws of death only to give him life upon terms under which it was scarce worth possessing.

The object of the following paper, therefore, is, to recommend the adoption of a practice in the early stages of fever which the urgency of the symptoms would not perhaps seem to demand, to press upon the attention of practitioners the necessity of a vigorous use of evacuations at the commencement of disease, and to urge the liberal use of purgatives, blood-letting, and the cold affusion. The two first, particularly adapted, in my opinion, to prevent visceral congestion and ultimate obstructions, so much to be dreaded as the sequelæ of this disease; and the last, calculated, when early employed, to put a speedy termination to its progress, and to prevent its fixing upon, and ever afterwards impairing the functions of important organs.

I regret that my experience is not sufficient to enable me to enlarge, or to speak with decision on the nature of those fevers, known throughout the Madras army by the appellations of Hill, Jungle, Wynaad, and Seringapatam fevers, from the places in which they are particularly prevalent. A cursory visit to the latter station—frequent conversations with my brother medical officers on the sub-

ject—and a personal acquaintance with many individuals suffering from them, renders me, however, so far acquainted with these fevers, as to know that they are often succeeded by consequences as serious as the original disease ; and that unless they are opposed by a very active treatment, in the first instance, the patient seldom or never regains a competent share of health. Of this, the number of officers (particularly of the pioneers, who are much employed in the jungles,) that I have met with labouring under the sequelæ of fever, and subject to frequent relapses, is a melancholy proof.

Of the destructive fevers prevalent at Prince of Wales' Island, at Batavia, and other parts of the Island of Java, I have also had but a limited experience. I am, however, enabled to say, that, in the cases of this disease which I had an opportunity of treating, amongst the men of the 22d Dragoons, and Royal Artillery, in the Island of Java, the practice of copious purging in every case, and of bleeding in a few of them, was attended with remarkable success. On going on board the Bombay Anna transport, off Sourabaya, in September 1811, I found several men of a detachment of the 22d Dragoons, under Captain Paterson's command, suffering from fever, which had appeared during the short time they had been embarked on the passage from Batavia. There being no medical

stores on board, except a few articles which Captain Paterson had himself procured, with a laudable attention to the interest of his men, the cold affusion was a source of relief which readily suggested itself; by means of this, and the use of purgatives, of which I found a supply, every case of fever was almost instantaneously arrested, and every man enabled to land with his troop. The same remedies have also been attended with the most marked success, in the treatment of the fevers occasionally occurring in the 2d battalion of the Royal Scots, during the period of my service with it in the peninsula of India. On referring to the Register of deaths, it will be observed, that in a period of nearly seven years, we have lost but forty-two men from fever; and, on a reference to my case book, I find, that of eighty-seven cases of fever, of which I have preserved notes, eighty-six have terminated favourably. * During the months of September and October 1810, fever was prevalent to a very considerable extent in a detachment of the regiment then in the garrison of Masulipatam, and by the liberal use of purgatives, cold affusion, and blood-letting, I succeeded in conducting every one of the cases to a favourable termination, and preventing the occurrence of any of the

* On referring to the case which terminated fatally, I find that the patient died from a large abscess in the liver.

dreadful sequelæ of this disease. These circumstances, while they say something for the efficacy of the practice employed, also prove, that at most of the European stations of the Madras army, fever is comparatively neither a very formidable nor fatal disease. I am aware that the fevers generally occurring at these stations are not to be compared in point of violence with the more formidable fevers previously noticed. I am, however, pretty well convinced, that the difference is more in degree than in kind, and am led to infer, that a more extended use of the practice, which has been so eminently successful in these milder forms of fever, would be equally beneficial in the more destructive fevers of other parts of India.

The description of fever which I have had an opportunity of seeing on the Madras establishment, is that characterised by many authors under the name of bilious remittent. Its approach is generally marked by a peculiar and unaccountable degree of listlessness and reluctance to exertion, sometimes conspicuous for two or three days previous to the accession of more urgent symptoms. Rigors, or chilly fits, although a general occurrence in the commencement of these fevers, are often so slight as not to attract much of the patient's attention: a sense of weight and pain in the forehead, pains in his loins and lower extremities, extreme lassitude and prostration of strength, are the symptoms he

dwells most upon, and these he frequently attributes to his having caught cold on guard. In plethoric young men, a flushing of the face, and fulness and suffusion of the eye-balls, are extremely conspicuous; frequency of pulse, and heat of skin, particularly the latter, increase, in some cases, to the highest pitch, in so much that it becomes actually painful to retain the hand for any length of time in contact with the patient's body; and this extreme degree of heat will often be particularly conspicuous about the praecordia; a degree of febrile oppression, anxiety, restlessness, and impatience of one position, prevail beyond what I have observed in fevers of a more fatal tendency; the tongue generally appears furred, and is often covered with a yellowish crust; this is accompanied with a disagreeable taste in the mouth, and a parched state of the fauces; the patient is distressed with an insatiable thirst, while he loaths almost every thing in the shape of solid food, and is often attacked with fits of retching and vomiting of discoloured bile; the stomach is sometimes so irritable, that even the sight or smell of food will bring on these attacks; the bowels are, for the most part, costive, and a sense of fulness, tension, and tenderness is often perceptible in the abdomen; the evacuations, when they appear, are generally dark coloured, and peculiarly foetid; the urinary discharge is extremely high coloured, and produces a

strong sense of scalding in passing along the urethra.

In the preceding enumeration of symptoms, I am aware that there is nothing peculiarly and exclusively appropriate to the fevers I am describing; nor are there any symptoms I can well fix on as particularly characteristic of them. The appearance, however, of a redundant and vitiated secretion of bile, conspicuous in the substance discharged by vomiting, and in the state of the alvine and urinary evacuations; the turgescence, sense of tension, and tenderness sometimes generally diffused over the abdomen, and sometimes confined particularly to one part of it; and the extreme anxiety, restlessness, and impatience of one position, all appear to me symptomatic of that disposition to congestion in the glandular viscera of the abdomen, which I consider as the chief source of danger in this disease. In the very few cases in which I have had an opportunity of examining the appearances on dissection, the brain, the liver, and spleen have seemed to be the organs particularly affected, an increased flow of blood, and apparent tumefaction in one or all of these organs, has invariably been remarkable; in the brain this has been marked by an obvious distension of the superficial blood vessels on its surface, while, in the liver and spleen, where the vessels are imbedded in the parenchymatous substance of these organs, it has been mark-

ed by a general increase of size and weight, and the effusion of an unusual quantity of blood on cutting into their substance.

These are, as far as I know, very general appearances in subjects dying in the earlier stages of all fevers ; but what I wish particularly to remark, is a disposition to congestion in the liver, which the nature of the climate, and the dissipated lives of soldiers in India, perhaps tend to fix particularly on this viscus ; and in many cases, when the fever does not immediately prove fatal, it nevertheless terminates in a permanent disease of that organ, laying the foundation of a chronic flux ; and after a lapse of weeks or months, ultimately carrying off the patient, by the supervention of abscess in the liver, or of inflammation and mortification in the course of the large intestines. Of the forty-two fatal cases of fever noticed in the register of deaths, I know that several have terminated in this circuitous manner ; and I have also reason to know, that many cases of the worst fevers in India—cases of the Seringapatam and Batavia fever—terminate in the same way. Of the proportion of cases in which those fevers are succeeded by fluxes and abscesses in the liver, I have no means of forming a correct estimate ; I am however persuaded that the number is considerable.

Men, when admitted with prominent symptom of fever, are naturally entered in the Hospital Re-

gister, under the head of that disease ; and when death ensues, it sometimes happens that they appear on the returns as dead of fever, when, perhaps, they ought, strictly speaking, to be returned dead of dysentery or liver complaints. An apparent increase is thus made to the fatal list of fevers, and a proportional diminution from the mortality produced by dysentery.

I have an obscure recollection of seeing (at an early period of my service in India) a form of return calculated to shew the number of diseases converted into, or succeeded by other complaints. This return was, if I mistake not, planned by my worthy and respected friend Dr. Harris, a physician of great learning, and ample experience ; and were such a return accurately filled up, it would, I presume, exhibit a large proportion of cases in which the fevers of India are succeeded by diseases equally formidable, and equally destructive. What I wish to infer from these observations, on the consequence of fever, is, the necessity of directing our attention to their prevention, and of instituting a practice, with a view to this point, which the extent of the symptoms would not otherwise seem to warrant. The means to be employed for this purpose I have already hinted at ; they are means very generally employed for the removal of fever, but are, in my opinion, not generally employed to a sufficient ex-

tent in the cure of the fevers occurring amongst the troops on the Madras establishment.

Purgatives.—Since the publication of Dr. Hamilton's work on purgatives, the extensive utility of this class of remedies is very generally admitted. To many of the diseases of India they seem peculiarly appropriate, and to none more so than to the disease under consideration ; the constipated state of the bowels generally existing in the commencement of this disease ; the appearance of vitiated secretions in the stools, and the dark colour and fœtid smell of the alvine evacuations, render the employment of purgatives totally indispensable. The appearance of natural evacuations pointed out by Dr. Hamilton as the criterion of their utility, is also an indispensable point in their exhibition ; and until this takes place, no limit is to be put to their administration. In the selection of purgatives for this purpose, I have not found that the purgative pills and doses of calomel, which are so generally in use in India, are by any means so peculiarly appropriate as many seem to imagine ; these, particularly where any great irritability of the stomach exists, are, no doubt, extremely convenient, from being easily taken, and operating in small bulk ; they are, however, as far as I have observed, more transitory in their operation, and more apt to be

followed by a return of costiveness, and a disposition to the re-accumulation of fœcal matter in the intestines than some other medicines of this class : This disposition to the return of constipation must be particularly attended to, and obviated, when necessary, by the continued use of medicine. The pulv. jalap. comp. and solutions of sulphate of soda, and sulphate of magnesia, are the purgatives from which I have experienced the best effects in the commencement of fever ; and I have often remarked, that there is no medicine which the soldiers, generally speaking, put so much confidence in, or conceive to operate so beneficially, as the common glaubers salt. This originates, no doubt, in some measure, from experience of its good effects, and also in part, from its being a purgative in common use among the lower classes of people in Britain ; in consequence of which, it is a medicine that many of them must have been familiar with from their earlier days, and are, therefore, acquainted with its virtues. Whatever purgative we fix on, should be assisted in its operation by the exhibition of purgative injections, and when, by this means, the accumulated excrement has been evacuated, it is advisable to keep up a lax state of the bowels, by the daily exhibition of diluted solutions of the neutral salts, purgative mixtures, or artificial mineral waters, until the febrile symptoms entirely disappear

until all sense of tenderness, marking a disposition to congestion in the abdomen, subsides, and a lax and natural feel of its parietes evince the return of a healthy disposition in the organs contained in that cavity.

Blood-letting.—Of the objections existing in India to an active system of depletion in the treatment of disease, and of the amount of fortitude necessary to overcome these objections, no one can form an accurate estimate, until he has seen how far they are countenanced by the bloodless aspect, the emaciated figure, and languid movement of many of the older residents in that country. An extreme aversion to the use of the lancet is a trait remarkably conspicuous in the practice of the older Indian physicians. An aversion so generally diffused, and so firmly rooted, is not to be denominated prejudice, and consigned to disregard, particularly when we consider the class of men among whom it prevails—men of liberal and enlightened minds—men of the first education—and men grown grey in experience; and although many of these physicians are now elevated by their rank from the laborious duties of an European Hospital, most of them have, in their younger days, had an ample share of intercourse with sick Europeans; and having devoted their whole attention to the diseases of a particular climate, their observations on the dis-

eases of that climate must be entitled to the first consideration. If their opinion of the general inutility of blood-letting is to be successfully confuted, it must be by patient investigation, and a detail of experience as laborious as that which has led to its adoption. To this fund of experience I can contribute but little. I may, however, safely assert, that neither in fever, nor in any other disease, have I ever had occasion to regret the employment of blood-letting; while, on the other hand, I have frequently had to blame myself for its omission. Instead of confining the use of this evacuation to the most urgent cases of fever, where its use appears indispensable, I should be inclined, in a great measure, to reverse the rule, and to practise it in every case where some peculiar circumstance does not forbid its use. Youth, plethora, vigour, and a recent arrival from Europe, are circumstances, which, in the opinion of many of our Indian practitioners, will alone justify the employment of this evacuation in any disease, and are circumstances in which I should find many ready to acquiesce in its utility; but it appears to me, that although patients of this description will undoubtedly bear bleeding to a much larger extent than men of an opposite description, yet this evacuation becomes no less necessary in older men, to obviate the tendency of the disease to fix upon and impair the functions of the liver, from which an increase of

years certainly affords them no exemption, and to which their residence in India, if of any duration, and the habits of the soldiery there, as certainly create a positive predisposition. We do not here, in general, require that copious detraction of blood which is necessary to arrest the progress of an active and violent inflammation of any particular viscus, but a more moderate depletion, calculated to prevent rather than remove a very general and widely diffused tendency to congestion; for this purpose, the abstraction of from 12 to 20 ounces of blood will frequently prove sufficient, if combined, at the same time, with the employment of purgatives. To this extent I have been in the habit of employing bleeding pretty frequently in the fevers I have had occasion to meet with in India; and to this I attribute, in a great measure, the very general exemption of my patients from those visceral obstructions so often consequent on this disease. The practice, indeed, has not been peculiarly mine, but has been very general in the regiment in which I have served. Where the violence of the head-ach, the flushing of the face, and suffusion of the eye-balls, point out the head as more particularly affected, in addition to a general bleeding, the opening of the temporal artery, or the application of leeches to the temples, has generally been practised with success; and, in one or two such cases, I have taken the

blood from the external jugular vein. Where any particular tenderness over the region of the liver has marked an incipient affection of that organ, blisters have been the local application more generally resorted to. The obscure nature of the functions of the spleen, and its comparative insensibility to pain, have seldom rendered a particular affection of this organ obvious or urgent in the active state of fever, but, should it in any case become so, blisters are here likely to be attended with similar advantages as in affections of the liver.

Cold Affusion.—This is a remedy in fever which is, in my opinion, by far too sparingly used in India; and, I apprehend, its limited use is more to be attributed to a want of experience of its beneficial effects than to any knowledge or apprehension of any ill consequences resulting from it. It appears to me to be a remedy which, in the part of India with which I was chiefly conversant, has never had a fair trial; and its employment seems rather to be neglected than discouraged. Although no one has any thing to say against it, yet very few practice it. To account for this, we must recollect that this is a remedy only applicable to a particular stage of the paroxysm of fever, and that unless we happen to find our patient at that particular crisis, its use is inadmissible. To practice this remedy, therefore, with effect, would require more frequent

visits to the hospital than surgeons can generally make, particularly, as it often happens in India, that they are quartered at some considerable distance from their hospitals. From having generally had the advantage of being stationed at, or very near, to the Regimental Hospital, I have had an opportunity of practising the cold affusion to a greater extent than any individual with whom I have conversed on the subject; and, in the use of it, I have experienced all the advantages which its most sanguine advocates could wish for. Whenever I have visited a patient in fever, and found him with a heat steadily and considerably above the natural standard, I have immediately had him brought into the hospital verandah, and had several pots of water (rendered colder by the addition of a handful of salt to each) dashed over him, and, after being rubbed dry, he was returned to bed, when this practice was generally succeeded by profuse sweating. After this, the employment of a purgative has generally prevented the disease from gaining any permanent footing, and the patient has often in the course of eight and forty hours been returned to his duty. Whenever a return of the extreme heat of skin, and an exacerbation of the febrile symptoms has rendered a repetition of the affusion necessary, the patient has submitted to it, not only without reluctance, but with the greatest cheerfulness, and most perfect reliance

on its beneficial effects. In this way I have succeeded often in terminating fevers which, in their commencement, had every appearance of a formidable disease; and which, so far as we can judge from the result of similar cases, would otherwise have been protracted for weeks, and perhaps ultimately terminated in some of those permanent visceral obstructions to which I have already so frequently alluded. It is, however, only to the early stages of fever that my experience of these beneficial effects of the cold affusion is confined, and it is perhaps only in the commencement of the disease that these good consequences are to be expected from it: where the disease has already existed for any length of time; where we have reason to suppose that the balance of the circulation may be already overturned, and determinations to the abdominal viscera already taken place, I have considered this practice as less applicable, and consequently been more sparing in its use.

Mercury.—In the common fevers of the Madras establishment, this is a remedy which, by a liberal use of the evacuations already recommended, may very generally be rendered unnecessary. Where, however, the patient has laboured under an indifferent state of health previous to the accession of urgent febrile symptoms, and where the use of purgatives alone seemed inadequate to the restoration

of healthy secretions, and natural alvine evacuations, I have frequently had recourse to it with the very best effects; and, in the more severe forms of fever prevalent in India, it is a remedy reckoned indispensable. While some difference of opinion exists regarding the mode of its operation, there seems to be but one opinion generally prevalent regarding its extensive utility. On this subject I speak with diffidence, but am inclined to think, that a more free use of bleeding and purgatives would, in a great many cases, even of these severe fevers, supersede its necessity. When, from the neglect, or too limited use of early evacuations, or from the unusual inveteracy of the disease, we find that it has terminated in a very imperfect cure, and that the patient remains subject to frequent relapses, often assuming an intermittent form, we have generally reason to suspect that the disease has fixed upon, and impaired the action of the liver. This is the more to be apprehended, if a variable and uncertain appetite, an irregular state of the alvine evacuation, a foul tongue, a pearly eye, sometimes tinged with yellow, a sallow complexion, and a parched skin, give us additional reason to suspect a fault in this viscus; and although no pain in the region of the liver should guide us to the seat of the disease, we are to proceed as if it were the organ principally affected. In the circumstances above enumerated, a careful examination of the abdo-

minal parietes will sometimes detect an enlargement of the spleen. This, however, we have reason to believe may exist to a considerable extent, and for a length of time, without any serious injury to the general health; and it becomes chiefly of importance, by giving us additional grounds to suspect a lesion of the functions of other organs, which we are led to consider as more important, perhaps only because they appear less obscure. Mercury in this state of things is a remedy in which I have been led to place the most unbounded confidence, and although, perhaps, often of itself adequate to the restoration of health, should always, wherever the patient's circumstances will permit, be assisted by change of climate, and a temporary absence from the station where the disease has been contracted. Long continued, or even repeated courses of ptyalism, succeeded by a journey to the sea-coast, or a trip to sea, will frequently succeed in restoring the patient to a competent share of health, and enabling him to resume his duties in India; and, should these means fail, we have then no resource left but to recommend a return to Europe.

Emetics.—In the treatment of fever, and many other diseases in India, we often find that a peculiar irritability of the stomach interferes with our best concerted plans of cure, leading to the rejection of our most powerful medicines, and the

consequent disappointment of our hopes. This is a symptom, therefore, with which I have always been glad to compromise ; and, where I have not found it pre-existing, have always been anxious to avoid any thing which could possibly have a tendency to excite it. Vomiting, when once induced, is seldom inclined to stop where we wish it, and often proceeds to form one of the most perplexing and troublesome symptoms of the disease. This has led me to be very sparing in the employment of emetics : and my experience of their effects in the treatment of fever is, of course, very limited. When, in the commencement of the disease, I have had occasion to suppose that the stomach was overloaded with bile, or with any substance recently swallowed ; and where this has occasioned the rejection of purgatives, (which, in the first instance I have most generally prescribed,) an emetic has then been given, solely with a view of evacuating the stomach ; and on the supposition that a complete evacuation of the contents of this organ was more likely to remove than to increase its irritability, and more likely to afford the other medicines I might wish to prescribe, a better chance of success : but as these have been my only motives for ever using emetics in the treatment of fevers, so have they been the only beneficial consequences I have ever observed from them.

Bark.—To omit the notice of this medicine, when treating of the means of combating fever, would be considered by many an unpardonable oversight. I have, however, lost much of the confidence with which I once looked to this remedy, and cannot bring myself to believe that it is very applicable to the fevers I have been accustomed to meet with in India; and although I have been in the habit of prescribing it pretty frequently, (more perhaps from habit than any thing else,) I have not been impressed with any high sense of its necessity or general utility. Where the disease has been speedily removed by the cold affusion, or the well-timed use of evacuations, the diminution of strength can seldom be so great as to make any imperious demand for the use of bark; and, on the other hand, when the fever has not been at once fully and effectually subdued, we have reason to fear that visceral obstructions are either already formed, or about to take place; and to the removal or prevention of these, the exhibition of bark, particularly if given in wine, cannot be conceived to contribute. The debilitated state of the stomach is also, in many cases, a powerful objection to the exhibition of a medicine which is to many particularly disagreeable. In the treatment of intermittent fevers, for which it has been so extensively used, I have not found its exhibition attended with that decided success which many would lead us to expect; and as these fevers are

so generally dependent upon, or at least connected with, organic disease of the abdominal contents, we may fairly be allowed to doubt the efficacy of bark, or the propriety of its exhibition. And these doubts are fully confirmed by all the experience we had in the treatment of intermittent fevers in the Royals, particularly at Trichinopoly, where this disease prevailed to a very serious extent; and where it was, in many instances, removed by the solution of arsenic, after the bark had failed.

DYSENTERY.

THIS disease, as it occurs in India, differs materially from the definition of our celebrated English Nosologist. Instead of the "*pyrexia contagiosa*," which that definition leads us to expect, and which is the first characteristic mentioned by Dr. Cullen, the dysentery of India often makes considerable progress, and has very seriously, perhaps irreparably, injured the intestinal canal, before any urgent symptoms of pyrexia become either distressing to the patient, or conspicuous to his medical attendant; and, with regard to its contagious nature, it may be sufficient to observe, that, amongst some thousand cases of this disease, which I have seen and treated, no one circumstance has occurred tending to excite even a suspicion of its being propagated by contagion. The appearance of scybalaë, another striking feature of the disease, as characterised in Europe, is comparatively a rare occurrence in India. There are various other circumstances tending to shew, that the flux prevalent amongst the troops in that country bears but a remote similarity to the dysentery of our Euro-

pean Nosologists. There is another series of appearances which, in my opinion, point out two distinct varieties of this disease as it occurs in India; the one an acute disease, confined chiefly to the large intestines, and which has, by some of the Indian practitioners, been not inaptly termed colonitis, a term not necessarily implying the existence of a flux, but corresponding extremely well with the appearances, on dissection; the other, a more chronic form of disease, and more extended in its site, has been, with some propriety, denominated the hepatic flux. I shall endeavour, throughout this paper, to keep these two varieties distinctly in view, convinced that this will be the means of leading to a more correct conception of the nature of Indian fluxes, and will, it is to be hoped, be the means of suggesting a rational and discriminating practice. On the first arrival of European troops in India, the colonitis, or inflammation of the large intestines, is the disease which principally proves destructive to them; and it is to this form chiefly I allude, in saying that the disease often makes considerable progress before any urgent febrile symptoms take place. This suggests the necessity of extreme caution in deciding on the cases of soldiers; and whenever the smallest doubt arises about the correctness of a patient's statement, it will be prudent to order him immediately into hospital, and to have his evacuations examined, so as, on the one

hand, to prevent ourselves being imposed on, and, on the other hand, to ensure speedy and effectual assistance to every man really ill. There is, perhaps, no disease in which the necessity of an adherence to the established maxim "*obsta prinipiis*" is more conspicuous than in this, and perhaps none in which, after a certain stage, the efforts of medicine become more completely unavailing. The manner in which a tropical climate operates in giving origin to this inflammatory affection of the colon, has always appeared to me a subject involved in considerable obscurity. Heat, particularly when combined with moisture; the immoderate and indiscriminate use of fruits; the abuse of spiritous liquors; exposure to currents of wind and noxious night dews, have generally been looked upon as powerful agents in the production of fluxes: but it seems difficult to account for the frequent occurrence of colonitis, on the first arrival of an European regiment in India, before many of these causes can possibly have taken effect; before the climate can well be supposed to have exerted its baneful effects on the constitution at large, or on the hepatic system in particular; and before the soldiers have become habituated to that abuse of the most pernicious description of spirits which subsequently renders their diseases frequent, obstinate, and incurable. Instead of proceeding, however, with an unprofitable speculation on the remote

causes of the disease, I shall proceed to a detail of its symptoms. *

In the Critical Review for 1802, we have the following extract of a Letter to Sir Walter Farquhar, descriptive of the disease termed Colonitis :

“ The disease of which I speak, and which is by much the most acute and fatal I have met with in India, is an inflammation of the colon, attended from the beginning with a severe fixed pain above the pubes, with extreme difficulty of making water, and frequently an entire suppression of urine. There is, at the same time, a violent and almost unceasing evacuation from the bowels, of a matter peculiar to the disease, and which I cannot describe more correctly than by observing, that it exactly resembles water in which raw flesh had been washed or macerated. There is always a very high fever, with unquenchable thirst, and perpetual watchfulness. The pulse is extremely hard, frequent, and strong, resembling that which takes place in the highest degree of pleurisy, or the most acute rheumatism ; and there is a burning heat in the skin, which leaves

* I use the term unprofitable, solely with a view to my inability to illustrate the subject, and not with reference to the utility of such a speculation. It must be obvious to every one, that the investigation of the remote causes of disease must be of the greatest importance, as tending to suggest the most probable means of prevention.

a sensation on the finger as if it had touched a piece of heated metal.

“ The fixed pain above the pubes, together with the peculiar evacuation above described, and the suppression of urine, may be regarded as the diagnostics of this disease, which will, on every occasion, sufficiently distinguish it from all other disorders of the intestines. These three leading symptoms are so constant and invariable, that, having always found them existing together when I was first called to see the patient, I had often great difficulty in ascertaining the exact order in which they arose ; for the first approaches of disease are either disregarded, or not accurately marked by the persons affected. Some of the persons told me that the fixed pain and purging began at the same time ; others, that the pain preceded ; and others, that they had suddenly been seized with a purging, which, after a few hours continuance, was followed by the fixed pain and strangury. This last, though a constant, is no doubt a secondary symptom, depending on the previous affection of the colon. But, with respect to the fixed pain and evacuation, they appeared, in all severe cases, to have begun so nearly at the same time, that I could not determine with precision which followed, or which preceded the other.

“ From dissection, the colon seems to be primarily affected ; and the bladder suffers only from

communication, as the lower part of the large intestine is generally inflamed. Tenesmus sometimes occurs, but the distinction between it and dysentery is sufficiently obvious from what we have transcribed. Bleeding seems useful; but opium given in the commencement is the most effectual remedy. If delayed till the fever supervenes, it is injurious, and can only be admitted on the decline of the complaint. The remedies then are emollient clysters and drinks, with fomentations above the pubes, which are more useful than blisters. Similar symptoms occasionally succeed after the usual fluxes of India, but they then are only a secondary complaint, and are to be managed in the same way."

This letter, so far as it goes, conveys a very good idea of the disease in its more advanced stages. We must not, however, expect to find it always accompanied by the strong constitutional symptoms of inflammation here detailed, and were we to wait for the accession of these symptoms, many of our patients would fall victims to this disease, who, by timely assistance, might speedily be restored to health. It has only happened to me to meet the disease, with these highly inflammatory symptoms, where it has occurred as a sequel to a course of hard drinking, and where, as often happens in such cases, it has generally made considerable progress before medical assistance is required. Indeed, it is

by no means uncommon for soldiers, particularly after being some time in India, instead of reporting themselves sick, to resort to a course of drinking, whenever they find themselves affected with any complaint in their bowels, with a view, as they say, to *drive it off*; and probably also to counteract that dejection and languor which naturally accompany such complaints. We have them then tumbling into hospital, with symptoms of the most aggravated nature, and have often to regret that the period is already past when the resources of medicine were likely to be useful. The anonymous author above quoted, very justly observes, “the first approaches of disease are either disregarded, or not accurately marked by the persons affected.”

The form of flux now under consideration commences in general with much of the appearance of a common diarrhœa; occasional griping pains in the bowels; frequent and unseasonable calls to stool, with an irresistible inclination to strain over it. The evacuations are generally copious, of a fluid consistence, without any peculiar fœtor; sometimes streaked with blood, and at other times a small quantity of blood is voided in a separate form, unmixed with the fœcal matter. The pulse, in this stage of the disease, is seldom altered: * the

* My experience here leads me to observe, that in many of the bowel complaints prevalent in India, the state of the pulse

heat of skin not perceptibly increased, and the tongue is frequently but little changed in its appearance. There is always a great prostration of strength and depression of spirits; the former symptom being always strongly dwelt upon by the patient. The appetite is indifferent, and the thirst urgent. To these symptoms succeed a fixed pain in the hypogastrium, more or less acute; the pain sometimes extending to, and peculiarly urgent in one or both iliac regions; and sometimes to be traced along the whole course of the colon, with a sense of fulness, tension, and tenderness upon pressure; and on applying the hand to the surface of the abdomen, a preternatural degree of heat is frequently perceptible in the integuments; the evacuations now become more frequent, and less copious; they consist chiefly of blood and mucus, or are composed of a peculiar bloody serum, which has been very aptly compared to water in which beef has been washed or macerated. A suppression of urine, and distressing tenesmus, now become urgent symptoms; the indifference to solid food increases, while there is an uncontrollable desire for liquids, particularly cold water, which the patient prefers to any drink that may be offered to him,

gives us but an imperfect idea of the extent of the disease; and is by no means a safe criterion to be guided by in forming a prognosis.

and from which he expresses his inability to refrain, although prepossessed with the idea of its being injurious. The tongue is now generally white and furred, sometimes, however, exhibiting a florid, smooth, and glassy appearance, with a tremulous motion when thrust out; the skin is either parching hot, so as to render it even painful to retain the hand in contact with it, or covered with profuse perspiration, in so much, that it may be often observed standing in large drops on the surface; the pulse is still frequently but little affected, sometimes however it assumes a febrile quickness, without any other remarkable feature, at other times it will be found without any great increase of velocity, but full, and bounding with a peculiar thrilling sensation under the fingers. This state of the pulse, whenever it takes place, always denotes extreme danger, and shews that the disease is rapidly hurrying on to the final stage, in which the lassitude and dejection, so conspicuous throughout its course, are now converted into the utmost degree of anxiety, depression, and fear of death. The patient generally shews an inclination to dwell upon symptoms, which, to a spectator, would appear of minor importance. He evinces the greatest reluctance to part with his medical attendant, although fully sensible how unavailing the efforts of medicine are likely to prove. The discharges by stool, which are frequently involuntary, are now

accompanied with the most intolerable fætor; they are frequently mixed with shreds of membrane, and quantities of purulent matter; a protrusion of the gut, forming a complete procidentia ani, often takes place; and cases are not wanting where a portion of the inner coat of the intestine, amounting to some inches, has been thrown off in a state of mortification. Even from this deplorable state I have known recoveries take place; more frequently, however, the pulse, which, in some cases, had even until now given but little indication of the mischief going on, begins finally to sink, pain ceases, delirium supervenes; a frequent hiccup, accompanied with vomiting, becomes distressing to the patient; his features change, and form a complete facies hippocratica; a large quantity of sordes collects about the roots of the teeth; his skin is covered with a cold clammy sweat; a peculiar cadaverous smell is emitted from the body; flies crowd in myriads round the unfortunate sufferer, as if impatient for their prey; and death comes at last as a desirable relief from this loathsome state of existence. Such is the melancholy progress—such is too frequently the termination of this disease. The periods occupied in passing through the different stages I have described are very various, the disease frequently proving fatal within a week from the patient's admission, and, at other times, its duration is protracted to two or

three weeks ; it seldom, however, I think, exceeds this, where it is solely confined to the inflammatory affection of the colon.

I now proceed to enumerate the symptoms of the more chronic form of disease, which has been denominated the hepatic flux. This is more particularly incident to men after being some time resident in India, and more frequently attacks those who, from habit and constitution, are less liable to violent inflammatory affections, but more prone to irregular and disordered secretions of bile. This flux, like the other, often assumes, at its commencement, the appearance of a common diarrhœa, and becomes afterwards characterised by frequent and severe fits of griping, resembling cholic pains, particularly urgent about the umbilical region. Each attack of griping is generally succeeded by a call to stool ; the evacuations at the commencement of the disease exhibit always something unnatural in their colour : it is, however, difficult to characterise this appearance, more particularly as it varies through all possible shades, from the darkest inky colour of which fæces are ever observed, to the different degrees of green and yellow ; and these various colours often appear alternately. The stools are accompanied with copious discharges of flatus, generally exhibit a frothy appearance, and are often attended with a sense of scalding about the anus ; the patient, after each evacuation, feels consider-

ably relieved, and hopes to enjoy an interval of ease; the recurrence, however, of the griping, accompanied with the sensation of air passing through the bowels with an audible noise, (the symptom termed by the older writers borborigmus,) and succeeded again by a call to stool, give him but little respite, in so much, that it is no ways uncommon for soldiers, when attacked with this complaint, to carry a mat with them to the necessary, and to pass the night there, instead of running backwards and forwards to the barrack-room. From the commencement of the attack the patient generally complains of an almost constant nausea, want of relish for his food, and preternatural thirst, attended with a disagreeable taste in the mouth; the tongue is furred or loaded, and not unfrequently covered entirely with a yellow bilious crust; the pulse is quickened, and the skin parched. After these symptoms have existed for several days, the stools become of a whitish colour, frequently mixed with portions of half digested aliment, and passed with straining*. The complaint is now denominated by the soldiers the white flux, this feature being so conspicuous, and many of them are well acquainted with its tedious and intractable nature, in so much that I have often heard them bewailing their misfortune, in being seized with this form of the disease; the

* See Sir John Pringle's account of the corpora pinguis. —
Diseases of the Army.

gripping pains continue, and sometimes the patient feels a permanent degree of oppression, rarely amounting to pain, about the region of the epigastrium; and in one or two cases of protracted disease, in delicate subjects, I have heard the sensation of the globus hystericus distinctly described. Nausea and loathing of food, accompanied with hiccup, and bilious vomiting, now become highly distressing: the latter symptom is often particularly troublesome, leading to the rejection of every thing offered in the shape of food or medicine; the thirst becomes more and more urgent; lassitude and debility increase; emaciation succeeds with rapid strides; the quickness of pulse continues; and the skin often communicates a peculiar greasy sensation to the touch. Under these symptoms, modified to a certain extent by peculiarities of constitution, by the season of the year, the local situation of the place, and other attendant circumstances, the patient continues to labour for weeks, and even frequently for months, so that this form of flux often does an irreparable injury to the constitution, by the length of its duration, and reduces the patient to a state of emaciation and debility, in which his life is held by a very precarious tenure. It does not of itself, however, generally, or perhaps ever prove fatal, but either terminates in recovery, or the patient is carried off by the occurrence of an abscess in the liver, or by the accession of ulcera-

tion and mortification in the course of the colon. The former is an event we have always to dread, and must, therefore, be on the watch for its appropriate symptoms, which are often but indistinctly marked; the accession of the latter event is to be apprehended, from the appearance of blood in the stools, and the other symptoms of colonitis formerly detailed.

I now proceed to give some account of the appearances met with on dissection, which are to be considered as chiefly applicable to the form of flux termed colonitis. These appearances, in a great proportion of cases, consisting solely in an inflammation of that part of the intestinal tube situated below the valve of the colon, without the smallest trace of disease in the structure of the liver; and although this appears a sufficient refutation of the vague idea entertained by many, that all fluxes prevalent in warm climates are to be attributed to diseases of this organ, yet I am by no means disposed to infer, from the want of morbid appearances in the liver, that this viscus may not have been in many cases the seat of diseased action during the life of the patient.

On laying open the abdomen, the following appearances generally present themselves: an effusion of serum, sometimes mixed with coagulable lymph, is found accumulated in this cavity; the omentum is generally shrunk, firmer than usual,

and feeling doughy, with slight adhesions to the convolutions of the intestines ; at other times shrivelled, perfectly transparent, and entirely destitute of fat—the latter appearance chiefly confined to those cases where the disease has been unusually protracted and complicated with a liver affection ; the stomach is seldom altered in its appearance or structure, and has seldom any thing peculiar in its contents ; the small intestines are often perfectly sound, sometimes exhibiting slight inflammatory patches, particularly towards the lower part of the ilium, and to these patches the omentum is occasionally found adhering ; these adhesions are to all appearance the result of a secondary inflammation supervening shortly before the death of the patient. On slitting open portions of the small intestines, a quantity of foetid air generally makes its escape, and this portion of the canal is frequently void of any other contents, nor does its inner coat exhibit any peculiar appearance. The great intestines again, the principal seat of disease, shew the strongest marks of inflammation in all its stages ; some portions exhibiting externally a slight inflammatory redness, while others are marked by the highest degree of lividity ; and in some cases parts of the gut will be found to have given way, so as to permit the escape of air, and even of fæces into the cavity of the abdomen ; and in these destructive effects of inflammatory action, the cæcum, with its

appendix vermiformis, and the sigmoid flexure of the colon, will, in most cases, be found to participate largely.* The appendiculæ epiploicæ, instead of their usual fatty appearance, are generally converted into gelatinous masses, and diminished in size; this appearance particularly remarkable in cases of a protracted disease, complicated with liver affections. The appearance of cells in the colon is in a great measure obliterated, and the coats of the intestine often so much thickened through-

* The frequent appearance of disease in these two portions of the gut was a circumstance which very early attracted my attention; and, in the year 1808, I hazarded the following conjecture on the subject, in a communication to Dr. Berry, at that time a most active and intelligent member of the Medical Board at Madras:—*Quer.* “ May not this be accounted for by the dependent situation of these two portions of the canal? When we are in an erect posture, the cæcum occupies a very dependent situation, with respect to the origin of the superior mesenteric artery from which it is supplied. The same thing cannot be said of the sigmoid flexure of the colon, so long as we continue in this posture; for it is then as high as the origin of the inferior mesenteric which supplies it: but, when the patient comes to be bedridden, and lies alternately on the right and left side, these two portions of the intestine come alternately to occupy a situation very favourable to any accumulation of blood that may be disposed to take place. And the position of the part which has such an obvious influence in other cases, will probably be allowed to operate with more force here, when we consider that the veins of the abdominal viscera are destitute of valves, and that although, upon the whole, the blood is assisted in its passage through them by muscular pressure, yet it is not, as in the veins of the extremities, assisted in its progress through each individual trunk by the action of circumjacent muscles.”

out, as to suggest the idea of a solid rope, and so much altered in tenacity, so brittle in texture, as not to admit of being handled without risk of rupturing them. On slitting open this portion of the gut, a quantity of fœtid air makes its escape, and the natural dimensions of the canal will be found much lessened by the thickening of the coats; the villous coat will be found in some places simply abraded, in others ulcerated, and besmeared with a bloody mucus, mixed with specks of purulent matter; and, in a few instances, I have seen parts of this coat exhibit the tuberculated appearance which has been so aptly compared to small pox*. Extravasated grumous blood, in considerable quantity, is occasionally found in the colon; and a quantity of natural coloured fluid fæces in the upper part of the great gut is by no means uncommon. The appearance of hardened lumps of fæces, in the form of scybalæ, is very seldom met with on dissection.

While diseased appearances are thus so remarkable in the course of the large intestines, the liver is frequently free from even the most trifling appearance of disease; at other times, it appears simply and slightly altered in colour, without any change of structure; and is sometimes found preternaturally small and slightly indurated, at other

* Sir George Baker De Dysenteria Epidemica, 1762.—Pringle's Diseases of the Army.—Monro's Health of Soldiers.

times enlarged and indurated. The appearance of abscess is rather a rare occurrence; the coats of the gall bladder are occasionally found to be thickened, and its capacity diminished; the bile is very often changed in appearance from healthy bile. This change, however, amounts to nothing more than a slight degree of thickening, or inspissation of the fluid, with an increased degree of tenacity, and a darker colour than natural. I have, I think, in a very few instances, observed the bile of a paler colour, and more fluid consistence than natural. The reverse of this, however, is by far its most common appearance.

The pancreas and spleen are so seldom altered, that it would only display an affectation of accuracy to attempt to characterise their diseased appearances. The same thing may be said of the kidneys and urinary bladder; the latter, however, is occasionally found pretty extensively involved in the inflammatory appearances of the contiguous viscera. The mesenteric glands (particularly in cases of a lingering disease) are often found enlarged and obstructed; and this appearance, if I mistake not, is chiefly confined to the mesocolon, or that part of the mesentery to which the diseased portions of the large intestines are attached.

I now subjoin a table of dissections, exhibiting the appearances in thirty-five fatal cases of Dysentery. These are all the dissections of which I find

I have preserved notes ; but, from the variety of situations in which they have occurred, and the different circumstances under which they have been detailed, they afford a very correct estimate of the sum total of my observations on this subject. And I am confident I speak within bounds when I say, that I have dissected not less than a hundred subjects dead of this disease, and have witnessed the dissection of many more.

TABLE of DISSECTIONS, shewing the Diseased appearances in Cases of DYSENTERY.

Station.	Date.	Name.	Liver.	State of the Omentum, Stomach, and Intestines.
Wallajahbad.	Jan. 1808.	Alexander Yale	Sound.	Small intestines inflamed in several places; colon thickened throughout; sigmoid flexure particularly affected.
		John M. Kenzie	Sound.	Small intestines sound; colon inflamed and thickened throughout; one mortified spot towards its lower end.
		Thomas Minness	Pale coloured.	Small intestines slightly inflamed; lower part of the colon quite mortified.
	Feb. —	Patt. Matthews	Sound.	Omentum slightly inflamed; colon thickened and inflamed throughout.
		Michael Connarty	Enlarged.	Colon thickened throughout; two spacelated spots in its transverse arch.
	Mar. —	Serjeant C. Campbell	Abscess.	Cæcum slightly inflamed; transverse arch of the colon adhering to the liver; sigmoid flexure and rectum mortified.
		Archibald Donaldson	Sound.	Omental adhesions; cæcum mortified; one sphacelated spot on the transverse arch of the colon; sigmoid flexure mortified.
		Dennis Nash	Sound.	Omentum transparent, adhering to the bowels; cæcum and appendix vermiformis completely destroyed by mortification, so as to permit the escape of a quantity of fæces into the cavity of the abdomen; lower part of the colon and rectum mortified; mesenteric glands enlarged and indurated.
		Samuel Stuart	Enlarged.	Omentum, stomach, and small intestines inflamed; cæcum and lower part of the colon mortified.
	Sadrass.	April —	William M. Mullen	Pale and indurated.	Omentum adhering to the bowels; several sphacelated spots in the course of the large intestines, particularly towards the lower part of the colon and rectum.
	May —	James Ewing Serjeant R. Park	Pale coloured. Dark coloured, with white spots on its surface.	Lower part of the colon and rectum completely mortified. Fat in the omentum, and around the viscera of a gelatinous appearance; stomach and small intestines sound; cæcum appeared sound externally, but its inner coat much inflamed; coats of the colon so much thickened as to feel like a rope; one mortified spot in the sigmoid flexure, its inner coat

TABLE of DISSECTIONS—Continued.

Station.	Date.	Name.	Liver.	State of the Omentum, Stomach, and Intestines.
Sadrass. -	May 1808.	Corporal Polson - Andrew Murray -	Pale and somewhat indurated. Sound.	covered with superficial ulcerations, and besmeared with pus; rectum in the same state. Small intestines generally, but slightly inflamed; cæcum and colon much distended with air; inner coat of the sigmoid flexure much inflamed. Omentum adhering to the surface of the bowels; small intestines inflamed in several places; large intestines had a continued chain of ulcerations on the inner coat from end to end; several extensive mortifications in the course of the colon, particularly one in its transverse arch, which was more diseased in this man than in any yet examined.
	June —	Cornelius Keating - Thomas Gillslan -	Pale and indurated. Pale coloured.	Stomach and small intestines sound; one livid spot in the cæcum; lower part of the colon and rectum much thickened; internal coats inflamed and ulcerated. Omentum adhering to the cæcum; one small round hole with livid edges in this part of the intestine; internal coat inflamed and ulcerated round the orifice; colon and rectum thickened throughout with extensive ulcerations in their inner coats.
Wallajahbad.	Aug. —	James Hay - - - Serjeant G. Farrel -	Sound. Sound.	Lower part of the ilium slightly inflamed; cæcum excoriated in its inner surface; colon and rectum thickened; lower part of the colon excoriated internally. Omentum adhering to the surface of the bowels; cæcum inflamed and mortified; one mortified spot in the hepatic flexure, and several in the sigmoid flexure of the colon; on slitting it open, a quantity of bloody mucus was found in it; a small quantity of serum and pus in the cavity of the pelvis.
		Thomas Williamson -	White and indurated.	Sigmoid flexure of the colon and rectum inflamed and thickened; inner coat of the colon had a livid and granulated appearance.

TABLE of DISSECTIONS—Continued.

Station.	Date.	Name.	Liver.	State of the Omentum, Stomach, and Intestines.
Wallajahbad.	Nov. 1808.	Gordon Drummond	White and indurated.	Small intestines slightly inflamed: cæcum completely mortified.
		Philip Moon	Pale and somewhat hardened.	Small intestines quite sound; cæcum mortified.
Hydrabad.	Dec. 1809.	Corporal Davis	Pale coloured.	Stomach and small intestines sound, large intestines thickened throughout; lower part of the colon mortified.
Masulipatam.	April, 1810.	John Christian	Several small abscesses.	Abdomen contained a quantity of deep coloured serum; omentum shrivelled and containing very little fat; stomach sound; small intestines inflamed in several places, particularly towards the lower part of the ilium, with slight adhesions between the convolutions; colon thickened throughout; sigmoid flexure completely mortified.
		Robert King	Pale and enlarged.	Omentum thickened, and adhering to the bowels; stomach and small intestines perfectly sound; cæcum and sigmoid flexure of the colon both completely mortified, and containing several small holes, through which a very foetid air was discharged; mesenteric glands enlarged and obstructed.
	May —	Sergeant N. Miles	Sound.	Lower edge of the omentum inflamed, and adhering to the surface of the bowels; stomach and intestines distended with flatus; cæcum thickened, and extensive ulcerations on its inner coat; transverse arch of the colon perfectly sound; sigmoid flexure quite livid externally, and its inner coat abraded and ulcerated.
		James Foran	Two small abscesses in the right lobe.	Stomach and small intestines sound, large intestines of a livid colour throughout; cæcum mortified; mesenteric glands enlarged and indurated.
		Patrick Kirwan	White and indurated.	A quantity of serum effused into the pelvis; stomach sound; small intestines inflamed in several places; cæcum thickened; transverse arch of the colon free from disease; sigmoid flexure mortified, and containing a quantity of black faeculent matter of an extremely offensive smell.

TABLE of DISSECTIONS—Continued.

Station.	Date.	Name.	Liver.	State of the Omentum, Stomach, and Intestines.
Masulipatam.	July 1810.	John Millar	Sound.	Stomach and small intestines perfectly sound; cæcum completely mortified, and containing a quantity of dark coloured fluid fæces; arch of the colon sound, its sigmoid flexure much thickened, and quite livid; rectum thickened but not mortified.
	Aug. —	Isaac Baird	Right lobe enlarged and hardened, left lobe sound.	Omentum quite shrivelled and destitute of fat; stomach sound; intestines from end to end of a light leaden colour and somewhat thickened; mesenteric glands enlarged and obstructed; right kidney much smaller than usual, left enlarged in proportion.
	Nov. —	William Barnett	Rather pale and hardened.	Cæcum and sigmoid flexure of the colon completely mortified.
		Archibald McMillan	Brown coloured, with white spots on its surface.	Stomach and small intestines sound, large intestines thickened throughout; a livid spot observed in the cæcum near the origin of the appendix vermiformis; on slitting open the lower part of the colon it was found to contain a quantity of pus and its inner coat ulcerated; one white spot was observed on the surface of the spleen.
	June 1811.	John White	Enlarged and indurated, with white specks on its surface.	Stomach and small intestines sound, with the exception of one or two purple spots towards the lower end of the ilium; coat of the large intestines thickened throughout, and the appendices epiploicæ of a gelatinous appearance; on slitting open the sigmoid flexure of the colon a quantity of pus was found mixed with fæculent matter, and small ulcers on the inner coat of the intestine; mesenteric glands enlarged.
Sourabaya. Island of Java.	Oct. —	Thomas Ritchie, 69th Regiment	Small and somewhat discoloured.	Stomach and small intestines sound as far as the lower part of the ilium, which was slightly inflamed; colon inflamed and thickened throughout, particularly its sigmoid flexure, which appeared livid.
Trinchinopoly.	April 1814.	William Donaldson	Abscess.	Lower part of the colon appeared livid externally, on slitting it open extensive ulcerations were discovered, and its inner coat covered with grumous

TABLE OF DISSECTIONS—Continued.

Station.	Date.	Name.	Liver.	State of the Omentum, Stomach, and Intestines.
Bellary. . .	May, 1814	Alexander Grant . . .	Sound.	<p>blood; this was the only diseased appearance in the course of the intestinal canal.</p> <p>Omentum shrunk and gathered up into a firm knotty mass; stomach, duodenum, and jejunum, free from any appearance of disease; lower part of the ilium slightly inflamed; colon and rectum much thickened, and their coats so much altered in texture as scarcely to admit of being handled without laceration; on slitting open the sigmoid flexure of the colon where it appeared most diseased, the internal surface of the gut had a granulated appearance, and was found covered with small ulcers; some extravasated blood, approaching to a state of putridity, was found in this part of the canal.</p>

Having now, by a detail of symptoms, and a view of the usual appearances on dissection, endeavoured to establish the existence of two distinct modifications, or varieties of flux prevalent in India, I proceed to say something of the treatment. On this subject, however, I shall not dwell long, as it is not my intention to swell this volume by entering into a minute detail of the mode of administering the different remedies, (which may, in some measure be learned from the cases recorded in the Appendix,) but simply to state, in general terms, what I have found to be most useful. I have no exclusive practice to recommend as always applicable;—nothing like a specific to hold out.

From the preceding detail of symptoms, and the appearances met with on dissection; from the slightness of the constitutional symptoms, and the violence of the topical affection, I have been led to consider the colonitis, or acute form of flux, as much more of a local disease, and, of course, more under the power of local remedies than has generally been imagined; to look upon it as a disease confined almost exclusively to the large intestines, an inflammation, in short, of this part of the canal, tending rapidly to mortification, and having, in a great proportion of cases, little or no connection with disease of the liver.* In many of the most des-

* In proof of the local nature of this affection, I beg leave to quote the following passages, from my correspondence with Dr.

perate cases of this disease, there has been so little reason to suspect an affection of this latter organ, from the existing symptoms during the life of the patient; and so trifling have been its diseased appearances on dissection, that I have been almost tempted to look upon them as the result of a secondary affection, communicated to the liver from its contiguity to the hepatic flexure and transverse arch of the colon—to look upon them as an effect rather than a cause of the disease. But, even allowing that a diseased action of the liver, and a vitiated state of the biliary secretion, have always preceded the attack of colonitis, and have even been, in some measure, the cause of the latter affection, still, in the state we meet the disease, the effect appears

Berry, already referred to. Dr. B. says, “ I have not laid any stress on the fever of this disease, as it is not common in inflammation simply of the colon, or remarkable till the disease has made progress; but when fever exists at the commencement, some other viscus besides the colon is probably affected.” Again, “ In the form of flux that has existed in the Royals, and that which took place last year in the 30th regiment, the small degree of constitutional affection present till the disease had almost run its course has no doubt been remarkable, and is very different from the more acute forms that used formerly to attract attention, and point out the inflammatory nature of the disease. It is difficult to account for the acute form being less prevalent, unless, perhaps, that the nature of the disease, not being formerly so well understood, or dissections so frequently made, it was only this form that most attracted attention; for flux has always been too fatal a disease, to say that the form, as it has appeared for two years at Wallajahbad, has not prevailed before.’

greatly to have outrun the cause ; they bear no adequate proportion to each other : and it is too much to expect that, by taking away the one, the other will cease. It would be of little consequence to exhibit remedies calculated to restore a healthy action to the liver while the patient was dying of mortification of the colon. Our attention therefore is, in the first instance, to be directed to the diminution of this violent inflammation of the colon, which will otherwise speedily terminate in mortification and death ; and, for this purpose, I have to urge the necessity of a vigorous use of topical remedies, of which leeches, blisters to the surface of the abdomen, fomentations, anodyne and astringent injections, constitute the chief. I am aware that these, particularly blisters, and anodyne injections, have been very generally employed, and frequently recommended as auxiliaries in the cure of dysentery. From having, however, been looked upon as auxiliaries, less attention has been paid to their administration than they deserve ; time has been lost in exhibiting general remedies, and waiting for their operation, which would have been more profitably employed in a more immediate attack on the seat of the disease. I am very far, however, from wishing to insinuate that I would reject the use of remedies affecting the system at large ; these are here, as in every other case of violent inflammation, of the utmost importance. And, from the description

I have given of the complaint, the first remedy which a practitioner would probably be induced to think of is,

General-Bloodletting.—Of this remedy I have to express a very favourable opinion. I must, however, candidly own, that this opinion is grounded more on the ravages of inflammation, so universally apparent in the dead, than on any repeated or extensive experience of its beneficial effects on the living. In the regiment in which I served there were two circumstances which contributed to restrain us from a free use of the lancet; the first was, a due deference to the opinion of the older practitioners in India, which, at the time of our arrival there, was almost universally against it; the second was, the diminution of vigour in the constitution of Europeans which a residence in India speedily induces, and which, in the case of the Royals, was, perhaps, somewhat augmented by a voyage of full five months without having touched any where for refreshments; so that by the time we had got over the first objection, from repeated experience of the safety and utility of bleeding in other diseases, our men's constitutions were reduced to a state which rendered the employment of this evacuation in dysentery extremely questionable, while the complicated nature of the cases latterly occurring lessened its necessity. In short, of the

few cases of dysentery in which I have employed bleeding, the majority have, I think, terminated favourably; and of those in which the result has been fatal, the appearances on dissection have been such as to excite a sentiment of regret at not having carried the evacuation farther.

Purgatives.—The exhibition of a purgative on the first admission of a dysenteric patient, with a view to ascertain that his intestinal canal is not overloaded with fœculent matter, and to assist us also in forming an accurate conception of the particular form of disease we have to contend with, is a precautionary measure which I have hardly ever omitted; and, with the same view, the exhibition of a purgative injection is occasionally to be recommended. Should these, however, be followed by no discharges of unhealthy fæces, but produce an increase of pain and tenesmus, with more copious discharges of blood and mucus, while, at the same time, the appearance of the tongue, and the mildness of the febrile symptoms in general, give no reason to suspect a loaded state of the bowels, the repetition of purgatives become, to say the least of it, perfectly unnecessary, and must obviously tend to counteract us in removing that irritable state of the bowels, and increased determination of blood to them, which it is so much our object to diminish; and except in cases where an obstinate tenesmus

may suggest the employment of a purgative, to satisfy ourselves that this harassing symptom is not kept up by the irritation of accumulated scybalæ, the frequent repetition of purgatives, in the form of disease now under consideration, is neither suggested by reasoning, nor warranted by experience. Indeed, the exhibition of even a single purgative, particularly in cases where a diarrhœa has existed previous to the patient's admission, would perhaps be omitted with advantage, or at least the time occupied by its operation might often be more advantageously employed. The purgatives which I have chiefly been in the habit of employing are neutral salts, with or without an infusion of senna : for this preference I have no very cogent reason to assign, but have thought those to operate more effectually, and with less griping and irritation, than other remedies of this class.

Emetics.—To obviate particular symptoms, to remove from the stomach any deleterious substance recently swallowed, and to give the other medicines we wish to administer a better chance of success, the exhibition of an emetic may occasionally be necessary ; but the extensive use of emetics, as a mode of cure, in either form of dysentery, is a practice I have no experience of. It is indeed true that the large doses of ipecacuan and opium, so generally employed, and so strongly recommended at

the period of our arrival in India, were not unfrequently attended by vomiting; this, however, was an effect which the warmest advocates of that practice wished to avoid; and, for my own part, it was never but with the utmost regret I saw it take place. It was always with me a sufficient indication to diminish the dose, or entirely to intermit the use of the remedy.

Sudorifics.—Of all the general and constitutional remedies employed in the form of flux now under consideration, this is the class of articles of which I have the most extensive experience, and to which I am disposed to assign the most powerful and salutary effects. Under the head of sudorifics, I mean to consider the very extensive employment of opium and ipecacuan introduced into India by Mr. Abercromby, when surgeon of the 34th Regiment; and which was urgently recommended to our attention during the prevalence of a most destructive flux in the 2d battalion of the Royals at Wallajahbad in the year 1808. The practice of giving several grains of solid opium, and following it by the exhibition of two or more ounces of an infusion of ipecacuan, was one at that time in the highest repute, and one which we entered into very extensively. Much ingenuity was displayed in accounting for the *modus operandi* of this remedy, and in explaining the beneficial effects so obviously result-

ing from its use. For my own part, however, I have no hesitation in asserting that its most obvious operation always appeared to me to be that of a powerful sudorific. In support of this opinion, I beg leave to quote the words of my respected friend, Mr. Heward, garrison-surgeon at Bangalore, whose observations on this disease, as it appeared in the 30th Regiment at Wallajahbad, are to be found in the 20th Edinburgh Medical Journal. Mr. H. says, in speaking of this practice, "the operation of the opium appears obviously two-fold, first, by diminishing pain and irritation; and, secondly, by determining to the surface of the body. The first effect may, in every case be observed, but the second and most important is less certainly produced, though it is in this way chiefly I believe the disease is carried off:" and in these observations I perfectly coincide. The other forms of sudorifics which I have chiefly employed are, Dover's powder, and the combination of antimonial wine with tincture of opium, or of antimonial powder with solid opium, in the form of a pill, from all of which I have observed beneficial effects; and, if a preference is due to one over the other, it is perhaps owing more to the situation of the patient at the time than to any specific difference in their action. Whenever it becomes an object, from the state of the stomach, to exhibit a sudorific in small bulk, the pill of opium

and antimonial powder will be found extremely convenient; this will also be found an excellent mode of employing sudorifics in camp, where some degree of inaccuracy and neglect will frequently attend the exhibition of medicines, when prescribed in a bulky or diffused form, and left to be administered by attendants, perhaps harassed and worn out by a long march. Before quitting this subject, I shall just observe, that, from the natural heat of the climate, during a great part of the year, smaller doses of sudorifics will be found to produce the desired effect than will be necessary in a colder climate; and this circumstance will account for the small doses of sudorifics generally prescribed in the cases detailed in the Appendix to this paper,

Warm-Bath.—This remedy will be found particularly useful in allaying the pain attendant on the disease; inducing a tendency to sleep; diminishing the frequency of the stools; and in promoting a discharge of urine, the suppression of which is often highly distressing to the patient, in so much that I have frequently been solicited to attempt something for the relief of this particular symptom. With this view, the catheter was at first pretty frequently introduced; but although this measure may be occasionally necessary to satisfy the urgent entreaties of a patient, it will generally be

found to afford but little relief; this affection consisting in a real suppression, as accurately distinguished by Mr. Hey from a retention of urine*.

Mercury.—In compliance with the very general, and in many cases well-founded, partiality for this medicine, which exists throughout India, we were induced to prescribe it to a very large extent in the first cases of dysentery which occurred after our landing at Prince of Wales' Island, where the regiment disembarked in September 1807. Dysentery soon occurred here in a very serious shape; and the exhibition of mercury, to the extent of producing profuse salivation, was then a very general practice in the island. In all cases of flux, and in the dysentery of natives and old residents in India, it might have been a very successful practice, but was certainly far from being so amongst the description of men we landed there. The dissection of every subject who died of dysentery in the regimental hospital at Penang, (with one solitary exception,) proved the disease to consist entirely in an inflammatory affection of the large intestines, without a trace of disease in the structure of the

* I have not thought it necessary to devote a separate section to the notice of fomentations of the abdomen, which are merely a partial use of the remedy now under consideration, and which may, in many cases, be employed with advantage.

liver. The consideration of this circumstance, and the reflection that mercury, when given for the cure of other complaints, is apt to produce some of the very symptoms which are here so distressing, soon induced us to be more circumspect in the use of this powerful remedy. Pains in the bowels, griping, and tenesmus, mucous, and even bloody stools, are not very unfrequent occurrences from the extensive use of mercury; and this medicine is, therefore, in my opinion, not very likely to be useful in removing them. I can readily conceive, and indeed know, that in cases of a protracted disease, where the discharges from the intestines degenerate from pure blood and mucus, and become more of a diseased nature, that there is no remedy so much to be depended upon, for the restoration of healthy secretions; but in the pure inflammatory complaint I am now speaking of, mercury can seldom be useful.

Topical Bleeding.—In considering the use of local remedies in the acute form of flux, I am induced to recommend the application of leeches to the surface of the abdomen, chiefly upon the authority of a letter from Dr. Annesley, Surgeon of the Madras European regiment, dated *Arnee*, the 11th July 1812, in which he says, “I have had a few cases of acute dysentery, in which I have been very successful, by the following treatment, viz.

smart and active purging, bleeding and blisters, all within the twenty-four hours, the effect of which was wonderful; a vast quantity of fæces came away; the bloody discharges ceased; and nothing remained but uneasiness, which was effectually removed in a day or two, by giving oily laxatives till the bowels recovered their tone, when nourishment and cordials soon brought them round. From this it would appear that bleeding may be used with advantage in the acute dysentery, and dissection certainly points out previous inflammation in almost every case. Whether general or topical bleeding is best, would become a question. In the cases I mentioned, leeches were employed, and as you may always proportion the quantity of blood you wish to take away by the number of leeches, I should think it the best plan. Give this consideration, and let me know your sentiments. If cases, in general, succeed as well as those I allude to, I think few men would die of dysentery. One of my cases was very desperate; he had been ill two days previous to his admission, a large quantity of brick-dust-coloured blood was discharged, but yielded immediately to bleeding, by the application of 18 leeches, the moment he came into the hospital*.”

* I must here apologize to my friend Doctor Annesley, for publishing so large a portion of a private letter, written without the smallest view to publication. I could not, however, deny myself the satisfaction of enforcing the efficacy of the practice I re-

During the period which I remained in India, subsequent to the receipt of the above letter, I had several opportunities which I considered favourable for the application of leeches to the surface of the abdomen, and in all of them the practice was attended with decided benefit; the pain and tension, as well as the bloody discharges by stool being immediately diminished*.

Blisters.—Of the efficacy of these, I speak decisively, from long and repeated experience; and whenever fixed pain in any part of the course of the colon indicates their employment, they cannot too soon be had recourse to. I have never known them fail to be attended by a diminution of the internal pain, the frequency of the stools, and tenesmus. It is, however, proper to recommend particular attention to the dressing of blistered parts on the surface of the abdomen, as I have known them, in several instances, degenerate into sores of a very troublesome description; and one case, I remem-

commend, by the coincidence of his opinion; the value of which will be best estimated by those who know his zeal and assiduity in the pursuit of his profession.

* While this sheet was printing, a practice was suggested to me by my friend Dr. Aitkin, which I would strongly recommend to the attention of future practitioners in India, viz. the application of leeches to the extremity of the rectum, as being the most direct application of topical bloodletting in inflammatory affections of the bowels.

ber, in which mortification occurred in the parieties of the abdomen, from a bad habit of body, and proceeded so far as to lay bare the peritoneum, and allow the peristaltic motions of the intestines to be seen through it ; and to this I conceive the death of the patient, which subsequently occurred, was more to be attributed than to the violence of his dysenteric symptoms.

Injections.—Of all the remedies employed in dysentery, injections have always appeared, both to my patients and myself, the most instrumental in alleviating the distressing tenesmus, diminishing the frequent calls to stool, and lessening the profuse discharges of blood and mucus. If thrown up in sufficient quantity, and with a tolerable degree of force, they will reach every part of the large intestines, and from thus coming in immediate contact with the seat of the disease, their beneficial effects are greatly augmented. It is extremely common for patients to assert that injections are the only remedies from which they experience any relief, and to beg for a repetition of them as the only thing from which they have any hope. For several months after our arrival in India, the discharges of blood were, in many cases, so profuse as to induce us to try injections of the most astringent nature ; and I may here remark, that this is the only form in which I have employed astrin.

gents to any extent in the cure of dysentery. In the composition of injections, decoctions of bark, solutions of the acetate of lead, and of the sulphate of zinc, were, at first, pretty extensively employed; and, with a view of increasing their efficacy, were occasionally thrown up cold. In the more moderate cases which latterly occurred, there was seldom any thing requisite beyond the common anodyne injection, composed of rice gruel (or what is termed in India, congee water) and tincture of opium, administered three or four times in the course of the day. From the expertness with which the natives attendant upon European hospitals generally administer injections, the frequent introduction of the pipe will not be found to produce those irritating effects which might be apprehended.

Such then are the general and local remedies I have been in the habit of employing in the acute form of flux. To give them a fair chance of success, the early and assiduous administration, particularly of the latter class of remedies, becomes indispensable; and where a timely opportunity of putting them in practice has been afforded, they have been followed by all the beneficial effects which can reasonably be expected in a disease of so fatal a tendency. Where we are not afforded an early opportunity of checking the inflammatory affection of the large intestines, and where, in spite of all our efforts, this proceeds to

terminate in mortification, the liberal exhibition of bark and wine is the only rational practice that can be recommended. A recovery, however, from even the slightest degree of mortification, although not an unexampled event, is one which must ever be looked on as miraculous ; an event more to be wished for than expected.

In the treatment of the chronic, or hepatic form of flux, on which I now proceed to make a few observations, many circumstances combine to induce us to consider it as much more of a constitutional disease than the preceding. The circumstance of its prevailing principally amongst men sometime resident in India, the degree of fever, which is always more or less conspicuous, and the diseased secretions apparent in the stools, and in the matter rejected by vomiting, all tend to mark a disease in which a more general derangement of the functions of the glandular viscera of the abdomen, and of the intestinal tube takes place. I will by no means take upon me to assert, as many believe, that all the diseased appearances of the stools exhibited in this form of flux proceed from a vitiated action of the liver ; but that the functions of this organ are, in most cases, materially, and, perhaps, primarily deranged, and that without the restoration of a healthy action to this viscus, all our curative efforts will prove nugatory, are facts very ge-

nerally, and, as far as I know, most justly believed. That this disease subsequently proceeds to impair the functions of the stomach, and of the upper part of the intestinal canal, the frequent attacks of vomiting, the passing of the undigested portions of food with the fæces, and the rapid emaciation of the patient, appear to me abundant proofs. We have here then a very general affection and tendency to disease in the chylopoetic viscera, without a marked inflammation of any particular organ ; our practice here must therefore be in a great measure reversed. Instead of the reliance on local remedies, which I have recommended in the treatment of the preceding form of flux, our chief dependence here is upon remedies operating more generally, and the chief of these is

Mercury.—If, in treating of the acute form of flux, I have refrained from an indiscriminate, and, as I conceive, unmerited commendation of this powerful medicine, it is only in hopes of being able to urge its employment with double force in the form of disease now under consideration ; to recommend an implicit reliance on it in the chronic form of flux ; to ascribe an almost unlimited power to it in this disease ; and to express an opinion that it will seldom disappoint our most sanguine hopes. A partiality for the use of mercury is as conspicuous in India as the aversion to blood-letting

formerly noticed ; that partiality is, however, in my opinion, much better founded. The efficacy of mercury, in all fluxes dependent upon, or connected with, a liver affection, is so generally admitted, that it seems unnecessary to enlarge upon it, and I shall therefore conclude with a few words on the mode of its administration. Almost every practitioner in India has a partiality for some particular preparation of this remedy, which he conceives to possess superior virtue ; and this is, perhaps, the strongest possible proof how much depends upon the medicine itself, and how little upon the form of its administration. If I have formed a prepossession on this subject, it is in favour of the common blue pill. In the early stages of the disease, before the irritability of the stomach commences, and before the organ assumes a disposition to reject every substance taken into it, I have thought that I could affect the system more speedily, and produce a change in the nature of the evacuations sooner, by the daily exhibition of from twelve to twenty grains of the blue pill, than by any other preparation. When an irritability of the stomach exists, and where, from the internal exhibition of mercury on former occasions, this remedy is known to have a tendency to increase the irritability of that organ, or where it has formerly shewn a disposition to affect the bowels with griping and tenesmus, its internal exhibition is to be omitted, and the system

to be affected by rubbing in daily from one to two or three drachms of the blue ointment, according to the urgency of the symptoms, the rapidity with which the disease is proceeding, and the constitution of the patient. The exhibition of calomel with opium is a very favourite practice with many, and I have entered into this to a very considerable extent; three or four grains of the former, and a grain of the latter, made into a pill, and exhibited every three or four hours, I have soon found to produce all the beneficial effects resulting from the employment of mercury. The purgative effects of the calomel are not entirely obviated by this proportion of opium, and this I have sometimes thought to have a beneficial tendency, particularly in cases where the occasional interposition of a purgative would otherwise become necessary, and where, from the situation of the patient, in camp, or on a march, medicines of this class become particularly inconvenient.

The general success of mercury, under every form, in the cure of hepatic fluxes, would seem to imply that the mode of its administration is, as I have already observed, a secondary object, and that, if a preference is due to any one preparation, it is more owing to the situation and circumstances of the patient than to any specific difference in their action. The quantity of the medicine to be exhibited will vary greatly in different individuals; it is always

to be carried the length of producing considerable ptyalism; and this, wherever the exhaustion of the patient does not forbid it, is to be kept up without intermission, until natural secretions return, and the stools resume a healthy appearance. For the profuse salivations, which many suppose necessary, I have never heard any good reason assigned; while the relaxation and debility of the patient, partly induced by the medicine, and partly by its rendering him incapable of taking the little sustenance to which he might otherwise be inclined, seem very strong objections to this practice. It is to be recollected that this is a chronic disease, not making any very rapid progress, not having in itself any very fatal tendency, but becoming chiefly dangerous by its disposition to terminate in a different affection; the practice, therefore, of pushing the mercury with an unsparing hand, which may be deemed requisite to arrest the progress of a spreading venereal ulcer, when seated on parts of importance, becomes here totally unnecessary, and its more gradual introduction appears infinitely preferable. Mercury then, in one shape or other, is to be considered as a *sine qua non* in the cure of this variety of flux. We are not, however, to neglect or despise the assistance of many of those remedies formerly noticed, for the cure of the more acute form of disease: Of these, the first entitled to consideration are

Purgatives.—The exhibition of these, in every stage of the disease, becomes occasionally requisite. In its early stages, they become useful by carrying downwards the whole of that profuse secretion of vitiated bile which is otherwise apt to accumulate in the stomach, and by adding to the irritability of this organ, often forms one of the most perplexing and intractable symptoms of the disease. They are, throughout the whole course of the disease, useful in preventing accumulation of air, and of undigested aliment, which are apt to take place in the course of the intestinal tube; and in its more advanced stages, when the white colour of the stools seems to imply a deficiency of bile, purgatives become useful in soliciting healthy secretions of this and the other fluids poured into the alimentary canal; in rendering the evacuations more copious and less frequent; and in producing calls to stool at more seasonable hours. In the choice of purgatives, we should study to select those which are likely to prove least ungrateful to the stomach of the patient; and in this we may often be guided by previous experience. If a prejudice exists against any particular medicine of this class, it ought, in general, to be a sufficient cause for its rejection. Neutral salts, in small doses, and largely diluted; infusions of senna; rhubarb, either in tincture, or in substance, and either with or without a few grains of calomel, are what

I have been in the habit of employing most frequently. In the choice of these, as well as in that of the preparations of mercury, a considerable variety of opinion exists; the castor oil is a purgative in very extensive use amongst the natives of India, and many of the practitioners there give it a preference to every other. Purgatives then, in one shape or other, I look upon as of great importance in conducting the cure of this form of flux, and next to mercury are the chief articles to be relied on. To relieve particular symptoms, a variety of other remedies will occasionally be employed with advantage: the warm-bath and sudorifics are required to obviate the heat of skin, and relieve the febrile symptoms in general, when they become urgent; opiates will be found useful in relieving the griping, and diminishing irritability of the stomach; and for this latter purpose, large blisters to the epigastrium are particularly efficacious, and should be applied without hesitation whenever this symptom becomes troublesome; particularly as we know that it often depends upon an affection of the liver, which blisters in the neighbourhood of that organ are well calculated to remove. Effervescing draughts were at first pretty largely employed to allay the irritability of the stomach: their success, however, entitled them only to a limited share of commendation. When tenesmus becomes troublesome, it will

be most effectually relieved by the use of the anodyne injections formerly recommended.

Before quitting the curative means in chronic dysentery, I must not omit to mention the practice of swathing the abdomen with flannel, as recommended by Dr. Dewar, and so obviously useful, by affording support to the debilitated intestines, by producing a degree of counter irritation on the surface of the abdomen, and by preserving an equality of temperature. The good effects of this are so well known to the soldiers, that you seldom see a man who has been any length of time in India, or who has suffered from bowel complaints, without his belly-band, consisting generally of a broad belt of woollen cloth, passing round the abdomen, buttoned in front, and supported by straps over the shoulders; and this an old soldier generally looks upon as one of the most important parts of his dress.

Respecting the regimen in these two forms of flux, of which I have hitherto said nothing, a few words will suffice. In the acute form of disease, particularly in its early stages, the antiphlogistic regimen, and abstinence from wine, cannot be too scrupulously enjoined; and the exhibition of mild diluents is strongly to be recommended. In the chronic flux, we should be guided in our selection of articles of diet by attention to those substances which are generally known to be most easy of digestion,

and most readily assimilated; and in this we may be directed, to a certain extent, by the patient's previous knowledge of what he has found to sit lightest on his stomach. But the appetite of a patient, in this form of disease, is often so fickle and capricious, as to render it impossible to comply with his taste; it may, however, be in general observed, that the smallness of the quantity he is disposed to eat will render it less injurious, should its tendency be hurtful; while, on the other hand, to force a patient to the use of articles of diet which he does not relish, and which, in the debilitated state of his stomach, are apt to be rejected by vomiting, seems a practice extremely nugatory.

I have thus far endeavoured, both in the history and treatment, to shew, that under the general denomination of Dysentery or Flux, we have two distinct forms of disease prevalent in India; and I now proceed to observe, that although, during the first years of my service in that country, these two diseases were often to be met with in practice as distinct as I have studied to keep them in description, they became latterly more and more blended together, and were to be found in all possible varieties of combination. This is what we should naturally expect from reasoning, and what is amply confirmed by my experience, so far as it goes. The well-known effects of warm climates, independent of the habitual use of spirits, will account for the

existence of a liver affection in most of the cases of colonitis which latterly occurred ; while the well-known tendency of the country or pariar arrack (often rendered more deleterious by the admixture of the most acrid ingredients,) to induce the acute or inflammatory flux, will account for the disposition latterly evinced by the hepatic fluxes to terminate in inflammation of the colon. While the two forms of disease were thus frequently found co-existent, and running insensibly into each other, it was by no means uncommon to find them existing alternately for weeks or months, and destroying the patient by a form of flux, the symptoms of which alternately bore a nearer relation to one or other of the diseases I have described. These form a description of cases by far the most perplexing and troublesome we meet with ; and, with respect to their treatment, the only general rule that can be laid down is, to urge the one or other mode of cure in proportion as the one or other set of symptoms become more pressing. And where the co-existence of both forms of flux renders it necessary to adopt a means of cure suited to this form of disease, we can only meet it by the simultaneous adoption of both modes of treatment. These, it will be observed, are by no means incompatible with each other ; the one consisting chiefly in the exhibition of local remedies, directed to the lower part of the intestinal canal, while the other consists chiefly in the

exhibition of mercury to affect the system. Had the appearance of the one form of flux uniformly, or even generally, preceded the other, I should have been most ready to take the opportunity of considering them as different stages, rather than different forms of disease; but the want of uniformity in this respect leaves, in my opinion, no room for such a description.

LIVER COMPLAINTS.

WHEN hepatitis occurs in an acute form, with all its accompanying diagnostics, it is by no means difficult of detection. From being considered one of the great endemics of India, it is a disease for which we are naturally on the look out; of the approach of which, the patient is naturally apprehensive, and for the treatment of which the surgeon is amply prepared. It is a disease, therefore, not likely to escape our notice, and, from meeting with appropriate treatment in its commencement, becomes, upon the whole, less dangerous and destructive, than those insidious and ill marked cases of chronic hepatitis, which steal upon us unawares, and proceed to an extreme from which there is no chance of recovery, without giving either patient or surgeon the necessary degrees of alarm. When we hear of patients dying suddenly from this disease, who were previously treated as hypochondriacs, and thought to enjoy a reasonable share of

health ; when we see abscesses in the liver discovered on dissection, which were never before dreamt of, it ought to awaken our most anxious inquiries, and impress upon our minds the necessity of an attention to the symptoms of those insidious attacks of liver complaint which reduce a patient to the brink of the grave without giving him due warning of his danger, and only call for the employment of the powers of medicine when we are sensible that they can be of little avail. Two or three cases of this description, which have fallen within my own observation, and several others which have come to my knowledge, have made a deep impression on my mind, and induced me to consider the early symptoms of liver disease as a subject of the utmost importance, and one of the most profitable points to which an inquirer can direct his attention.

While, in a great majority of instances, affections of the liver are obviously the joint effects of climate and intemperance, we find them in others the result of climate alone. When originating solely in this latter cause, they are often very obscurely marked, and it is a circumstance peculiarly galling when we find the disease to have proceeded to an incurable extremity in some of our best and most deserving men—men distinguished for sobriety and regular habits, virtues which, from their rarity amongst the soldiery in India, are the more

conspicuous and the more praise-worthy. It is, in all diseases, an object of importance to make ourselves, as far as possible, acquainted with the character of our patients; but if this becomes in any case more peculiarly necessary, it seems to be in cases like the present, where comparative insensibility of the organ affected, and the moderate degree of pain, are too apt to induce negligence and inattention on the part of the patient, and where, from motives very different, patients of opposite characters are equally disposed to make light of, or to conceal their complaints. While pain continues moderate; men of good character are not disposed to dwell upon their sufferings, are averse to appear in the sick report, and afraid of being ranked amongst what are termed hospital birds; while men inclined to drunkenness and dissipation are equally averse to make their appearance in the sick list, from a fear of being taken into hospital, and deprived of the means of gratifying their vicious propensities. I have often thought, and indeed often felt, that a little attention bestowed by a medical officer, on first joining a regiment, in acquiring a knowledge of the character of his patients, will, in the end, be amply repaid. He will eventually acquire the confidence of every deserving man, and will be less frequently annoyed and perplexed with attempts at imposition by those of a different description. It becomes us, at the same

time, when instituting such inquiries into the character of our patients, to recollect, that, while the votaries of dissipation are least likely to meet with our sympathy and attention, they are most likely to be the victims of disease.

Well-marked cases of hepatitis, characterized by severe and fixed pain in the region of the liver, extending to the shoulder, and increased by a full inspiration, attended with a quick and hard pulse, constipation of the bowels, and other symptoms laid down by nosologists, are not a very frequent occurrence in India; and when we do meet occasionally with these unequivocal symptoms, they, in general, lead to a practice sufficiently active, and amply successful. This will account, in a great measure, for the small number of deaths noted in the register, as occurring from this disease. In a period of seven years, we have only twenty-seven deaths ascribed to hepatitis; it is, however, to be observed, that these do not include many cases of liver affection, of which flux is often a prominent and urgent symptom, and which are accordingly entered in the hospital register under that head. But my principal object in this paper is, to enumerate some of the symptoms I have generally found to accompany those more chronic cases of liver disease, where pain is not a leading symptom; and where we want this guide to direct us to the seat of the evil, cases of this description, being by

far the most common in India, become, of course, by much the most important.

The class of patients to whom my experience has been chiefly confined, is perhaps not the most favourable for making observations on the state of mind accompanying disease; but whenever I have had an opportunity of turning my attention to this point, I have observed that, in cases of hepatitis, the mind is, in general, obviously affected; and an apprehension and alarm exists which no external symptom seems to justify. The patient is generally overcome with a degree of languor, listlessness, reluctance to exertion, and aversion to enterprise, for which no adequate cause is conspicuous. He does not seem to be deterred from exertion by the presence or apprehension of pain, nor does his aversion to enterprise seem to proceed from a want of ability to accomplish it; he seems solely to be restrained by a state of mind rendering him indifferent to external objects, inducing him to paint the result of his complaints as inevitably fatal, and to consider every thing as void of importance to one who must speedily fall a victim to disease*. While the patient is apt to indulge in this despond-

* The state of mind so well painted by Mr. Watt, in his cases of Diabetes, is equally conspicuous in the chronic hepatitis; and this, perhaps, is not the only feature in which the two diseases agree.

ing state of mind, he does not always relinquish his hopes from the employment of medicine, but, in some instances, seems to entertain an almost superstitious faith in its power; he delights in detailing his miserable feelings to others, particularly to medical men, while, at the same time, it is obvious that he labours under the greatest difficulty in explaining his sensations accurately. From this he is apt to suppose that his medical attendant does not perfectly comprehend the nature of his complaints, and thinks that if they were completely understood, he might yet be saved. Pain, as I have already hinted, is not, in general, an urgent symptom; and when more distinctly complained of, it is, I think, frequently described as occupying the epigastric, rather than the right hypochondriac region. It is occasionally found extending up the side, and reaching to the top of the right shoulder, where a gnawing, or aching sensation is experienced; the patient generally speaks of a sense of oppression, fulness, or stuffing about the lower part of the chest, which leads him to press upon the part affected; and from this he experiences a momentary relief. I have, myself, however, been long a sufferer from a chronic affection of the liver, and, instead of a sense of fulness, I have more generally experienced a feeling of vacuity—a sensation as if part of my liver were defective, or rendered entirely destitute of sensation; and this disagreeable

feeling is also very much relieved by pressure on the region of the liver. I have frequently met with patients who could not well say what was the matter with their side, but seemed to entertain a vague idea that they would be relieved by making an incision into it, and have pressed me to attempt something of this kind for their relief. A manual examination of the side will sometimes assist us materially in ascertaining the existence of a liver affection, and is a mode of inquiry which should never be omitted. I have met with many who seemed to possess a peculiar expertness at discovering enlargements and indurations of the liver by this means. I must, however, observe, that I have more than once seen very gross errors committed by some who pretended to acquire very important information from this *tactus eruditus*; and although, in the advanced stages of the disease, where emaciation has proceeded to a great extent, this examination may assist us in forming an idea of the nature and stage of the affection, I have been latterly accustomed to trust but little to it in my endeavours to ascertain the existence of the disease in its earlier stages. It is, perhaps, here, worthy of remark, that I have met with some patients, who, although they could themselves press the side freely, yet shrunk from the hand of a stranger, the moment it was applied, as if it occasioned them exquisite pain. Whenever an unusual sus-

ceptibility of this kind exists, it should be distinctly ascertained whether it is the result of pain, or proceeds from a sense of tickling; which I have sometimes observed to be the case. This will, in general, be easily ascertained, by pressing more firmly on the side; by trying whether the patient can bear the application of our hand to his opposite side; and by trying whether he can bear pressure, with his own hand, on the region of the liver. When the disease has been of considerable duration, I have sometimes been able to perceive, by the eye, an obvious swelling over the site of the liver. When the patient is stripped naked, and examined minutely, both on the sternal and dorsal aspect, it will sometimes appear that the ribs lying over the region of the liver are more elevated than the corresponding ones of the opposite side, as if the action of respiration was going on in that side, while the other remained at rest. Such are the principal feelings and symptoms referable to the liver itself. The pulse, in cases of chronic hepatitis, does not afford any decisive criterion, until its increased quickness, accompanied with fits of rigor, thirst, and restlessness, give reason to apprehend the formation of matter; a dry tickling cough sometimes occurs, but, in general, it is not a symptom which attracts much of the patient's attention. An increase of pain, and difficulty of lying on the left side, when it exists, is a strong symptom of li-

ver affection : it is one, however, by no means universally present ; and, in some instances, I have known an equal difficulty of lying on the right side, and the patient only able to enjoy rest upon his back. The next object demanding our attention is the state of the stomach and bowels. In almost every serious affection of the liver, I have observed a peculiar irritability of the stomach, marked by an almost constant degree of nausea and retching, with the frequent rejection of its contents, consisting of vitiated bile, and tough phlegm : this is generally attended with a capricious, but not always defective appetite. When the patient fully indulges his inclination for food, he experiences, for some time after eating, a sense of fulness and tension in the stomach, and is sensible that he has taken in more aliment than he is able to digest ; this produces a degree of febrile thirst, restlessness, and intolerance of one position. The state of the alvine discharge is, in every doubtful case of liver complaint, a subject of no less importance ; this is, in most cases, materially altered, either in quantity or appearance. I have already, under the head of Dysentery, noticed one form of that disease in which the liver is principally affected, and which might, perhaps, without impropriety, have been considered in this section ; but having already directed the reader's attention to that subject, it seems only necessary to observe, here, that the liver disease is not uni-

versally accompanied with the state of bowels there pointed out ; but, on the contrary, the disease generally commences, and frequently exists for some time, with a state of constipation of the bowels, the stools being less frequent, and more scanty than natural ; sometimes remarkable for a darker, and sometimes for a lighter colour than usual, these colours frequently alternating for some length of time, and eventually terminating in flux. From the imperfect state of digestion, we find the stools in the latter stages of the complaint occasionally mixed with portions of ill-digested aliment, and copious discharges of flatus frequently take place. The urine, when examined, will be found depositing a copious reddish flaky sediment, which, however, is a symptom not particularly confined to cases of hepatitis ; but generally prevalent in all cases where the stomach is much affected, the digestion impaired, and the process of assimilation defective. This appearance of the urine, which, in the more acute form of hepatitis, may generally be looked on as a favourable symptom, denoting its speedy resolution, is, in the chronic form of the complaint, to be considered as a more equivocal appearance, and will often exist for a length of time without any obvious amendment. The peculiar sallowness of complexion, and jaundiced eye, which most authors have dwelt upon in their descriptions of hepatitis, I have not hitherto mentioned, conceiving that, al-

though this appearance gives a decided turn to the diagnosis in Europe, and although it is, perhaps, always to be looked upon as originating in, or indicating a predisposition to, liver affection, yet we see it so generally prevalent in India that, as a diagnostic symptom of disease, it becomes comparatively unimportant.

In the dissection of patients who have died of hepatitis, the appearances will, of course, differ materially, according to the rapidity and violence with which the symptoms have proceeded. In cases of the acute form of liver complaint, where the disease proves speedily fatal, by terminating in suppuration, it is very common to find one, or both lobes, almost wholly converted into matter, partly serous and partly purulent, confined in a sac formed by the peritoneal coat of the liver, which, in attempting to raise up this organ from its position, is often ruptured, and the matter diffused over the abdomen. In a few cases of this kind, one of which is detailed in the Appendix, I have found the diaphragm eroded, and the matter communicating with the cells of the lungs, from which, where the patient has survived for any length of time, it has been discharged by expectoration. In many instances, an extensive adhesion will be found to have taken place between the liver and transverse arch of the colon. From this it will be apparent, that the matter may thus find its way into

the intestinal canal, and be discharged by stool. It has never happened to me to meet with a case in which such a communication between an abscess of the liver and the cavity of the intestine could be distinctly established, although I have no doubt that matter has, in many instances, been discharged in this way, and in some cases a cure accomplished. In the chronic form of disease, instead of meeting with an abscess of any remarkable size, we generally find several small distinct collections of pus, similar to what are termed vomicæ in the lungs. The whole mass of the liver is generally, in such cases, altered in colour; it assumes an appearance as if parboiled, and becomes much firmer in texture than natural, in so much, that on cutting into its substance, a sensation is communicated to the hand of the dissector, as if his knife was passing through a soft cartilaginous mass. The small quantity of blood which flows from an incision into an indurated liver of this description, is a remarkable feature, and affords a striking contrast to the state of liver I have described, as existing in the remittent fevers of India. The appearance of white spots of various dimensions on the surface of the liver, and of indurated tubercles in its substance, is by no means uncommon in protracted and ill-defined cases of disease. In the Appendix, I have detailed a singular case of hydatids attached to the liver, combined with the ex-

stence of small abscesses in its substance: this, however, is the only case of the kind I met with in India, and is to be considered a rare occurrence*. The gall-bladder seldom exhibits any material alteration of structure, or, at most, is simply thickened in its coats, and, in consequence, somewhat diminished in capacity. The bile itself I have never had an opportunity of analyzing, and am not able to speak with precision as to the changes it undergoes; but, if we may judge from appearance, these changes cannot be of very material importance, as it differs only from healthy bile in a slight alteration of colour or consistence.

In the treatment of hepatitis, of which I have now endeavoured to detail the most usual symptoms and appearances, our most strenuous endeavours ought to be directed towards the prevention of suppuration; for although I have frequently heard of cases of recovery, after considerable ab-

* The diseased appearances of the liver, as occurring in India, are generally confined to suppuration, or induration, the legitimate results of a preceding inflammation. The different species of tubera described by Dr. Farre, are by no means a common occurrence in that climate; and the existence of hydatids in the liver is very rare. The latter appearances are, perhaps, more frequently met with in Europe than in India. Since this work went to press I have been favoured with the particulars of two remarkable cases of hydatids in the liver, one of which occurred in the practice of Dr. Marshall Hall of Nottingham, and the other in the practice of Mr. Oldknow, surgeon of that place.

scesses of the liver, I have never had the good fortune to meet with an instance of a complete restoration to health, after being certain that such an event had taken place ; and I have heard the same remark made by a very experienced practitioner in India, for whose judgment and opinions I have the highest respect*. From the deep seat of many of these abscesses ; from the resistance opposed to their progress outwards ; and from the ease with which the substance of the liver apparently gives way to the ulcerative process, we are often surprised to find an enormous collection of matter accumulated before we have any external appearance to direct us to the precise seat of it, or to guide us in making an opening for its evacuation.

From these considerations it becomes us to be peculiarly sedulous in our efforts to prevent suppuration of the liver ; and for this purpose I have employed blood-letting to a much larger extent than what the state of the pulse, the height of the symptoms, or the habit of the patient would seem to demand. Of this, I can safely say, that I have never had occasion to repent ; and that the more I practised it, the more confident I became in its use.

* A story is very generally current in India, of an officer on the Madras establishment having had an abscess of the liver opened by his adversary's ball, in fighting a duel, and by this means obtaining a complete cure.

It is common in India to look upon blood-letting as an evacuation which, if possible, it is upon all occasions desirable to avoid, and which ought never to be had recourse to except in cases of extremity. Although this is a sentiment in which I have never permitted myself to indulge, yet I fear I have often been to blame for the omission of this important remedy. This, however, will perhaps be considered a venial fault in a young practitioner, by those who know how imperfectly the system of depletion, in the treatment of diseases, was established in India at the time of my leaving it, and how formidable the opposition with which its advocates had to contend.

The remedies next in efficacy are purgatives; and of these calomel is generally and justly supposed to produce the most beneficial effect. It is a common and effectual practice to administer six, eight, or ten grains of this preparation, in the form of pill, over night, and to follow it in the morning by the exhibition of a quantity of some of the neutral salts, the infusion of senna, or a dose of castor oil. The first of these is the remedy to which I am disposed to give the preference; but each has its advocates, and perhaps its peculiar advantages. I am convinced that there is no error into which we are more prone to fall than that of adopting a routine in practice, and getting into the habit of exclusively employing one set of remedies, without

reference to the habit and circumstances of the patient. When purgatives appear tardy in their operation, there ought to be no delay in assisting them by the employment of injections, and when by these means copious evacuations are procured they seldom fail of producing the most beneficial effects; relieving the indescribable sense of tension, stuffing, and oppression about the region of the liver, and making the patient feel comparatively light, easy, and cheerful; so that we have seldom any difficulty in persuading him to repeat them as often as they are considered necessary. The utility of an examination of the evacuations in assisting our diagnosis, and regulating the means of cure, I have already inculcated.

We are not, however, to expect, in cases of long and continued attacks of liver disease, that purgatives will alone succeed in restoring the abdominal secretions to a healthy state, and producing stools of a natural appearance; for these purposes, in every protracted case of this disease, the powers of mercury are alone to be trusted, and these are in general sufficiently efficacious. The relief indeed experienced in most cases of chronic hepatitis, the moment the mercury affects the mouth, is truly surprising; the removal of all uneasy feelings from the side, the comparative clearness of the patient's skin and visage, the restoration of the natural evacuations, and the removal of

every complaint but debility, evince the powers of this remedy ; and were its effects always as permanent as they are conspicuous, we should have nothing farther to desire in the treatment of this complaint. Unfortunately, however, this is not one of those diseases to which a patient is only subjected once in his life ; and when, as is too often the case, the patient's circumstances compel him to remain in India, he is generally subject to a repetition of his complaints, and has often occasion to recur to the same remedy, which, like all others, loses its efficacy by frequent repetition. With regard to the form of employing mercury, I have previously given my testimony, so far as my experience goes, to the superior efficacy of the blue pill, wherever the state of the stomach admits of its employment ; and this is a remedy which may be taken in considerable quantity by those in the higher ranks of life, who have an opportunity of taking care of themselves, without interruption to their usual occupations. In regulating the extent and duration of a mercurial course, I have generally made it a rule to be guided, in some measure, by the duration of the complaint, urging the mercury more speedily where the disease was of short duration, and the constitution unbroken by previous attacks ; and where the disease was of longer continuance, exhibiting the medicine more gradually, and protracting the period of its employment.

In the employment of nitrous acid, for the cure of liver complaints, I have not observed all those salutary effects which some would lead us to expect from the use of this remedy. My trials of it, however, have not perhaps been sufficiently extensive, as I have never been inclined to trust the cure to it alone, but have, in many instances, alternated it with a course of mercury; and from this practice I derived very considerable benefit in my own case.

Of the use of the acid bath recommended by Dr. Scott, I cannot speak from experience, but, coming so strongly recommended from so respectable a quarter, and offered to us as a relief from the most miserable feelings which humanity is heir to, it certainly deserves an extensive trial.

In combination with the general remedies which I have now considered, we are not to omit the use of topical applications to the region of the liver. Blood-letting by leeches, or the scarificator, is, in the early stages of the affection, often of the most essential service; and wherever a sufficient quantity of blood can be procured by these means, we never fail of relieving the sense of fulness and tension in the part affected. This is a remedy too, which, from the plentiful supply of leeches in most parts of India, we have it in our power to practise to the fullest extent; and it has the advantage of being, in many cases, admissible, where the propriety of gene-

ral blood-letting may be considered as questionable by the practitioner, or strenuously opposed on the part of the patient.

Blisters are a never failing source of relief in almost every stage of the affection, and afford us, at the same time, a remedy which we can in some measure employ as a test in cases where we have reason to suspect the disease to be feigned. No one will submit to the pain, irritation, and trouble of repeated blisters, unless to avoid some greater evil, or to gain some important end; and it is a pleasant reflection, where we have any suspicion of our patient, to think that we are employing one of the most effectual means for relief, if he is really ill, or rendering his attempts to impose upon us a source of pain to himself. Blisters have also the advantage of being applicable to rheumatic affections; for which we often find patients so willing to mistake the chronic hepatitis. I need scarcely, however, caution medical men against indulging in this error, as every one will readily conceive that, in India, where hepatitis is considered as the bane of Europeans, all pains about the site of the liver are most likely to proceed from disease in that organ. Every consideration then induces us, without hesitation, to have recourse to blisters; and, in regulating their application, I shall barely observe, that I think the repeated application of fresh blisters preferable to the esta-

blishment of blister issues, particularly in a warm climate, where dressings are apt to become rancid, and where sores, if not particularly attended to, are apt to degenerate into troublesome ulcerations.

The only remaining topical remedy which I consider of importance is the seton; and of this, it may be observed, that the beneficial irritation on the surface, which it occasions at its first introduction, soon subsides, and the discharge, in general, is not sufficient to produce very material benefit. I conceive the introduction of a seton, however, by far the most advantageous mode of opening abscesses in the liver when they point externally; and were we able, by fomentations, poultices, or any other means, to procure an early derivation of the matter to the surface, so as to guide us in operating, setons would, I believe, be the means of saving many patients, or, at least, of prolonging their lives. I must, however, be again allowed to repeat, that although I have, in several instances, opened abscesses of the liver in this way, no one of my patients has eventually been restored to permanent health. Let us not then deceive ourselves—let us not join our patients in the procrastination in which they are apt to indulge—but let us, on the contrary, point out to them the evils of delay, and press upon them the necessity of early and assiduous efforts to prevent suppuration—an event which leaves so little room to hope.

discharge of bitter juices, particularly in a warm
 climate, where these are not so frequent, and
 and where some, if not particularly attended to,
 are apt to degenerate into troublesome interstices.
 The only remaining topical remedy which I can
 refer of importance is the castor, and this it may
 be observed that the hepatic affection on the
 surface, which it occasions at its first introduction,
 soon subsides, and the discharge in general is not
 sufficient to produce very material benefit. I con-
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 the most advantageous mode of opening, whenever
 in the liver when the point externally, and when
 we are by fortuitous position, or any other
 means, to procure an early detension of the matter
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 press upon them the necessity of early and safe
 means, to prevent suppuration—in a word
 which leads to little room to hope.

APPENDIX

APPENDIX I.

REGISTER of DEATHS in H.M. 2d Batt. 1st Reg. of Foot, for the Month of January 1808.
Station, WALLAJAHBAD.—Present on the 1st January, N. C. Officers and Privates 1006.

COMPANY.		NAME.	SIZE.		AGE.		Make.	DESCRIPTION.			DISEASE.	REMARKS.
No.	Captain's Name.		Feet.	Inches.	Years.	Months.		Complexion.	Hair.	Eyes.		
1	Chisholm's	Thomas Penniston	5	6	23		Puny	Fresh	Brown	Grey		
		Edward Haywood	4	10	17		Slight	Ditto	Lt. Brown	Hazle		
7	John Gordon's	John Anderson	5	4	18		Good	Brown	Dark	Dark		
		Joseph Doran	5	4	17		Slight	Swarthy	Brown	Grey		
		Selas Fleet	5	5	18		Puny	Fair	Ditto	D. Grey	Dysentery.	
		John Stewart	5	4 $\frac{3}{4}$	17		Slight	Fresh	Dark	Blue		
		Joseph Dicks	4	8 $\frac{1}{2}$	14		Ditto	Ditto	Fair	Ditto		
3	Parson's	Serj. John Douglas	5	7	26		Good	Fair	Ditto	Ditto	Liver.	
		William Anderson	5	5 $\frac{1}{2}$	18		Ditto	Brown	Brown	Grey	Ulcer.	
		James Dumphie										
		James King	5	6	19		Slender	Fresh	Brown	D. Blue		
		John M. Kane	5	5 $\frac{1}{2}$	17		Stout	Swarthy	D. Brown	Grey		
		John Stables	5	4 $\frac{1}{2}$	21		Ditto	Fair	Brown	Hazle		
		Alexander Youll	5	3	18		Ditto	Ditto	Red	Grey	Dysentery.	
5	H. B. M'Ghie's	Patrick Daly	5	5	15		Ditto	Ditto	Brown	Ditto	Ditto.	
6	J. P. Gordon's	John M'Kenzie	5	6 $\frac{1}{4}$	20		Good	Brown	Black	Black	Ditto.	

REGISTER for January—Continued.

No.	COMPANY. Captain's Name.	NAME.	SIZE.			AGE.		Make.	DESCRIPTION.			DISEASE.	REMARKS.
			Feet.	Inches.	Years.	Months.	Complexion.		Hair.	Eyes.			
2	J. P. Gordon's	Thomas Minnis	5		15		Slight	Fresh	Brown	Grey	Ulcer		
8	Stoddart's	William Judd	5	9	21		Ditto	Fair	Light	L. Grey	Dysentery.		
		John Thom	5	0 $\frac{1}{4}$	14		Ditto	Dark	Black	Grey	Ditto.		
4	Lee's	James Fitzgerald	5	5	21			Fair	L. Brown	Ditto	Ditto.		
		Joseph Banner	5	3	25			Swarthy	Black	Black	Dysentery.		
		Patt. Collins	5	3	18			Fresh	L. Brown	Blue			
		Patt. Corrigan	5	2 $\frac{1}{2}$	16		Slight	Ruddy	Red	Grey			
		Thomas Dewar	5	1 $\frac{1}{2}$	15		Ditto	Fresh	Red	Ditto	Dysentery.		
6	Edward Glover's	Corporal A. Fife	5		20		Stout	Ditto	Red	Hazle	Ditto.		
L. C.	Duncan's	Michael Boland	5	6 $\frac{1}{2}$	24		Ditto	Ditto	Brown	Ditto	Ditto.		
		James Edgerton	5	6	20		Ditto	Pale	Fair	Grey			
6	Edward Glover's	Andrew Allen	5	5	32		Ditto	Swarthy	Black	Brown	Dysentery.		
Gren.	M'Lean's	William COWALL	6		23		Slender	Brown	Light	Hazle			

Note.—A similar Register has been made out from 1st January 1808 to 31st July 1814, and the following abstracts give the general results of that Register.

ABSTRACT of the Register of Deaths for the year 1809.

1809. Month.	STATION. Head Quarters of the Regiment.	STRENGTH. N. C. Officers and Privates.	Number of Deaths.		AGE.		MAKE.		DISEASE.					REMARKS.	
			25 Years and under.	Upwards of 25 Years.	Robust, Stout, or well made.	Slight, Slender Delicate or Puny.	Fever.	Dysentery.	Liver.	Ulcer.	Hydrophobia.				
January.	Wallajahbad.	1009	3	1	1	1	1	1	1	1					{ Regiment marched on the 12th for Bangalore, was afterwards countermanded, and directed to proceed to the Presidency, where it arrived on the 24th. Detachment joined from Vellore.
February.	Fort St. George.	951	2	2	1	1	1	1	1						
March.		944	3	3	1	2	1	2	1						
April.		941	3	3	1	1	1	1	3						
May.		938	3	2	1	1	1	1	3						
June.		937	2	2		2	2	2	2						
July.		935	2	2		2	2	2	2			1	1		
August.		933	6	5	1	4	2	2	1						{ Regiment marched out of Fort St. George and encamped at the Mount on the 6th, leaving the sick and boys at Madras. Regiment arrived at Hyderabad on the 3d.
September.	In the Field.	929	7	6	1	2	2	2	1	4					
October.		923	3	3	2	2	1	4	3	3					
November.		928	5	5	1	4	1	2	3	5					
December.	Hydrabad.	914	5	5	4	1	4	1	2	5					
Total.		Average. 940	44	40	4	17	19	527	2	1	1				

Abstract of the REGISTER of DEATHS for the Year 1812.

1812. Month.	STATION. Head Quarters of the Regiment.	STRENGTH. N. C. Officers and Privates.	Number of Deaths.		AGE.		MAKE.			DISEASE.							REMARKS.
			25 Years and under.	Upwards of 25 Years.	Robust, Stout, or well made.	Slight, Slender, Delicate, or Puny.	Fever.	Dysentery.	Liver.	Dropsy.	Veneral.	Small Pox.	Wound.				
January.	Trichinopoly.	1197	2	1	1	1	1	1	1	1	1	1	1	1	1		
February.		1193	4	1	1	3	1	1	1	1	1	1	1	1	1		
March.		1359	1	1	1	1	1	1	1	1	1	1	1	1	1		
April.		1338	3	1	1	3	1	1	1	1	1	1	1	1	1		
May.		1338	3	1	1	3	1	1	1	1	1	1	1	1	1		
June.		1336	4	1	1	1	4	1	1	1	1	1	1	1	1		
July.		1330	6	1	1	4	3	1	1	1	1	1	1	1	1		
August.		1409	5	3	3	5	3	1	1	1	1	1	1	1	1		
September.		1405	2	1	1	3	2	1	1	1	1	1	1	1	1		
October.		1395	3	3	2	1	1	2	1	1	1	1	1	1	1		
November.		1391	6	2	2	5	3	2	1	1	1	1	1	1	1		
December.		1364	5	2	2	6	1	1	1	1	1	1	1	1	1		
Total		Average 1338	43	12	32	22	63	40	1	1	1	1	1	1	1		

{ A detachment of four Companies marched for Quilon on the 30th.
Detachment returned from Quilon on the 15th.

Abstract of the REGISTER of DEATHS for the Year 1813.

1813. Month.	STATION.	STRENGTH.	Number of Deaths.	AGE.		MAKE			DISEASE.									REMARKS.					
				25 Years and under.	Upwards of 25 Years.	Robust, Stout, or well made.	Slight, Slender, Delicate, or Puny.	Fever.	Dysentery.	Liver.	Pulmonic.	Rheumatism.	Veneral.	Gastritis.	Abscess.	Hydrophobia.	Drowned.						
January.	Trichinopoly.	1357	4	4	1	4		1		1													
February.			5	4	1	5		2		2													
March.			7	6	1	4		3		2													
April.			5	2	3	1		4		4													
May.			5	4	1	2		3		4													
June.			4	2	2	1		2		3													
July.			2	2	2	1		1		3													
August.			5	5	1	3		2		3													
September.			4	3	1	3		1		3													
October.			4	3	1	3		1		3													
November.			4	3	1	3		1		3													
December.			3	2	1	2		1		2													
Total		Average	52	40	12	32	20	523	6	1	1	1	2	1	1	1	2	1	1	2	2		

Regiment marched from Trichinopoly on the 19th.
 Regiment arrived at Bangalore on the 14th.

{ A detachment of five Companies took the field
 on the 13th.

Abstract of the REGISTER of DEATHS from 1st January to 31st July 1814.

1814. Month.	STATION. Head Quarters of the Regiment.	STRENGTH. N. C. Officers and Privates.	Number of Deaths.	AGE.		MAKE.		REMARKS.
				25 Years and un- der.	Upwards of 25 Years.	Robust, Stout, or well made.	Slight, Slender, Delicate, or Puny.	
January.	Bangalore.	1300	4	4	2	2		
February.			2	2	2	2		
March.			0	3	2	5		
April.	In Camp.		9	7	2	3		Regiment marched for Bellary on the 1st.
May.	Bellary.		18	16	2	14		{ Detachment joined at Bellary on the 19th, and the Regiment marched for Hydrabad on the 29th.
June.	In Camp.		6	6	3	3		Regiment arrived at Hydrabad on the 20th.
July.	Hydrabad.		3	1	2	3		
Total		Average	52	44	8	32	20	

Note.—The diseases for this period have not been inserted in the Register.

*Extracts from the Proceedings of the Medical Board
at Madras, dated 27th March 1809.*

“ THE Royals particularly suffered from the great youth of many of the soldiers, from circumstances connected with their voyage, and from being landed at Prince of Wales’ Island; and the 30th Regiment, by the change induced on landing from a long voyage, by the difference in diet, by exposure to the sun, and carelessness of the unseasoned soldier, as to what he eats and drinks; a loss which might be greatly diminished by making the Cape of Good Hope a depot for all regiments as well as recruits for India; for recruits are generally the greatest sufferers from the diseases fatal to European troops, being soon initiated into all the vices of the old soldiers, and, from not being accustomed, more apt to suffer from them:

“ Abstract of the sickness of his Majesty’s 59th Regiment, from their arrival in April 1806 to the end of that year, having been stationed at Poonamallie and Vellore. This Regiment stopped some time at the Cape, and obtained fresh supplies, by which they arrived under more favourable circumstances than either the 30th or 2d battalion of the Royals.

<i>Date.</i>	<i>Diseases.</i>	<i>Admissions.</i>	<i>Deaths.</i>
From April 1806 to 31st Decem- ber 1806.	Fever. - -	36	3
	Flux. - -	97	28
	Hepatitis. - -	33	11
	Other diseases. -	56	6
Total		222	48

“ Effective strength on landing 972.”

“ Abstract of the sickness of his Majesty’s 30th Regiment, from their arrival on the 24th January to the 31st August 1807, having been during the above period stationary at Wallajahbad.

<i>Date.</i>	<i>Diseases.</i>	<i>Admissions.</i>	<i>Deaths.</i>
From 24th January to 31st August 1807.	Fever. - -	131	20
	Flux. - -	491	85
	Hepatitis. -	22	3
	Other diseases. -	283	24
Total		927	132

“ Effective strength on landing 1229.”

“ Abstract of the sickness of his Majesty’s 2d battalion of Royals, from their arrival in December 1807 to the end of August 1808, having been stationary during the above period at Wallajahbad.

<i>Date.</i>	<i>Diseases.</i>	<i>Admissions.</i>	<i>Deaths.</i>
From December 1807 to 31st August 1808.	Fever. - -	239	17
	Flux. - -	541	98
	Hepatitis. -	20	3
	Other diseases. -	365	58
Total		1165	176

“ Effective strength on landing 1025.”

“ The views here given of the sickness of European troops for the first hot season after their arrival, are pointed proofs of the great benefit that would result from making the Cape of Good Hope the depot for all troops, and for all recruits for this

country*. And another fact is here shewn, his Majesty's 59th Regiment consisted more of men come to their full strength and vigour than those of his Majesty's 30th Regiment, and in the 2d battalion of the Royals there are literally a great number of boys; to this circumstance it was probably owing that there was so much less sickness in his Majesty's 59th Regiment than in the other two. For men come to maturity have habits of more arrangement, by which they are less liable to disease, or are more able to contend with it.

“ The companies of his Majesty's 56th Regiment that arrived here in March 1808, were a strong illustration of the advantages to be obtained by having all soldiers for India above 25 years of age, and as the period of service is fixed, no more boys should be sent to India. The men of his Majesty's 56th Regiment here, were, generally speaking, from 25 to 30 years of age, and which are certainly the fittest for ten or fifteen years service in India. Their sickness and casualties at Madras, from 1st April to 1st October 1808, as follows, will shew how very little they suffered from disease in comparison for the first six months they remained on this coast.

<i>Date.</i>	<i>Diseases.</i>	<i>Admissions.</i>	<i>Deaths.</i>
From 1st April to 1st October 1808.	Fever. - -	43	1
	Flux. - -	68	7
	Hepatitis. -		
	Other diseases. -	82	
Total		193	8

“ Effective strength of the detachment 309.”

* In the original document furnished me by Dr. Berry, a statement is given of the sickness of his Majesty's 34th Regiment, illustrative of the advantages it derived from a residence of three years at the Cape; but as the strength of the 34th, on its arrival at Madras, is not mentioned, I do not think that its sickness admits of a fair comparison with that of the other regiments.

APPENDIX II.

FEVER.

Wallajahbad, August 15, 1808.

JAMES SMITH, Æt. 19.

Was brought in off the parade this morning, complaining of intense pain in his forehead, sickness at stomach, and urgent thirst. Pulse 96, and full, face much flushed, skin hot, tongue clean.

Emittantur sanguinis uncixæ sexdecim.

Imponatur vesicatorium nuchæ.

Habeat statim sulphatis sodæ unciam cum semisse.

Aug. 16th. Had only one stool from the salts; blister has risen well; head-ach much relieved; complains a good deal of vertigo. Pulse 84, heat natural, tongue clean.

Recipe—Calomelanos grana duo,

*Pulveris antimonialis grana tria, misce, fiat pulvis,
quarta quaque hora sumendus.*

— 17th. Has had several calls to stool since last visit, but has had no evacuation of any consequence; still complains of slight head-ach. Pulse 80, heat natural.

*Injiciatur statim enema purgans cum olei ricini unciis duabus.
Continuentur pulveres.*

— 18th. Had several copious stools after the injection yesterday; is now free from complaint.

Dismissed.

Wallajahbad, Sept. 6, 1808.

JOHN LEVESAY, Æt. 15.

Was admitted yesterday forenoon, complaining of intense headach and pain in his loins; his pulse 86, of moderate strength; his face much flushed. An attempt was made to bleed him from the arm, but very little was procured, as he sickened almost immediately on opening the vein. A blister was then applied to the nape of his neck, and he took a dose of calomel and antimonial powder. Was seized during the night with violent pain in the right hypochondrium and dyspnoea, for which a blister was applied to the pained part. Blister on his neck has risen well. Head-ach much relieved. Blister on his side not yet fully risen, pain, however, considerably relieved. Has had a great many green coloured stools during the night; urine passed with difficulty. Pulse 90, heat natural, tongue white, and loaded.

Utatur balneo tepido mane et vespere.

*Recipe—Calomelanos grana quinque,
Extracti colocynthidis grana octo, misce.
Forma in Pilulas tres statim sumendas.*

Eight P. M. Blister on his side has risen well, and completely removed the pain. Has had no stool from the pills. Headach returned this afternoon, and is at present very severe. Pulse 96, skin hot, thirst urgent; urine passed freely.

Injiciatur quam primum enema purgans, et repetatur omni hora, donec responderit alvus.

*Abradatur capillitium, et
Imponatur vesicatorum capiti.*

Sept. 7th. Had several copious stools after the first injection last night. Blister has risen well. Head-ach much relieved; continues free from any pain of side or dyspnœa. Pulse 90, skin extremely hot, tongue white, urine passed with difficulty, appetite very bad, thirst urgent.

Recipe—Calomelanos grana duo,

Pulveris antimonialis grana tria.

Sit pulvis ter die sumendus.

Continuetur balneum tepidum ut heri.

— 8th. Had several copious stools of a natural appearance after the powders yesterday; sweated copiously during the night; is to-day free from any head-ach or pain in his side, but seems to labour under a great degree of febrile anxiety and oppression, and has been two or three times affected with rigor this morning. Urine passed with much difficulty, and very high coloured. Pulse 95, skin hot, tongue white, appetite bad, thirst urgent.

Continuentur pulveres ut heri præscripti;

Continuetur etiam balneum tepidum.

Recipe—Unguenti hydrargyri drachmam, cruribus vespere infricandam.

— 9th. Complains again to-day of pain in his forehead, but continues free from any pain of side; no return of rigor; has had several copious stools of a natural appearance since last visit. Pulse 90, skin rather hot, tongue white.

Continuentur pulveres et balneum.

Omittatur unguentum hydrargyri.

— 10th. Head-ach gone; no return of the pain in his side or rigor; four stools of a pretty natural appearance since last visit. Pulse 86, skin rather hot, tongue foul.

Continuentur pulveres et balneum.

Sept. 11th. No return of pain ; complains of vertigo and dimness of sight on attempting to sit up ; three stools since last visit. Pulse 86, skin hot, tongue white.

Continuentur pulveres, ut antea.

Intermittatur balneum tepidum.

— 12th. Mouth slightly affected by the calomel ; complains to-day both of slight headach and pain in his right side ; three whitish coloured stools since last visit. Pulse 84, skin hot, tongue white.

Intermittantur Pulveres.

Habeat statim olei ricini unciam unam.

— 13th. Had several stools of a more natural appearance after the castor-oil ; says he is to day free from any pain whatever, but seems to labour under a kind of general anxiety and oppression not easily described. Mouth a good deal affected, pulse 80, skin moist, tongue white.

Habeat mane et vespere tincturæ rhei drachmas duas.

Utatur gargarismate ex solutione sulphatis aluminæ.

— 14th. Had three whitish coloured stools after the Tinct. Rhei yesterday ; complains again to-day of severe headach, accompanied with vertigo, tinnitus aurium, and dimness of sight ; no pain of side. Pulse 86, skin moist, tongue white and loaded.

Continuetur tinctura rhei.

Imponatur vesicatorium nuchæ.

— 15th. Blister has risen well ; headach gone ; mouth still very sore ; no pain of side ; stools frequent, and whitish coloured. Pulse 80, heat natural, tongue white.

Continuentur tinctura rhei et gargarisma.

Sept 16th. No return of headach; three white-coloured stools since last visit; mouth much affected by the calomel. Pulse 80, skin hot, tongue white.

Habeat statim olei ricini unciam.

Continuetur gargarisma.

— 17th Mouth still very sore; complains of no headach, or pain of side; has had four or five brownish coloured stools since he took the castor oil yesterday. Pulse 78, heat natural, tongue white.

Continuetur gargarisma.

Habeat vini uncias sex indies.

— 18th. Complains of no pain whatever; stools frequent, but of a natural appearance; mouth still sore. Pulse 78, skin moist.

Continuentur gargarisma et vinum.

— 19th. Mouth still very sore; continues free from pain, and begins to recover strength. Pulse 76, tongue white, bowels regular.

Continuentur vinum et gargarisma.

— 20th. Mouth considerably better. Pulse natural, tongue foul, bowels bound.

Continuentur vinum et gargarisma.

Habeat statim olei ricini unciam.

— 21st. Had several copious whitish-coloured stools after the castor oil; continues free from any pain. Pulse natural, tongue clean, appetite improved.

Continuentur vinum et gargarisma.

— 23d. Complains again to-day of severe headach

continues free from any pain of side ; mouth still slightly affected. Pulse natural, tongue rather white.

Recipe—*Calomelanos grana quinque,*
Pulveris jalapæ grana quindecim.

Sit pulvis statim sumendus.

August 24th. Several copious white-coloured stools after his medicine ; headach almost gone. Pulse natural, tongue clean.

Recipe—*Calomelanos granum unum,*
Extracti Colocynthidis grana duo.

Sit pilula mane et vespere sumendus.

— 26th. Still complains of slight headach ; stools frequent, and of a natural appearance. Pulse natural, tongue clean.

Dismissed, convalescent.

Wallajahbad, September 11, 1808.

RICHARD DOWDLE, Æt. 16.

Admitted last night. I first saw him in the barracks about 8 P. M. ; at that time he complained of acute pain in his head, (which, he said, had been much increased by the operation of an emetic taken yesterday morning ;) his pulse then about 96 ; face flushed, skin hot. Twelve ounces of blood were immediately taken from his arm, and he took a dose of calomel and antimonial powder upon his admission, which has not yet produced any evacuation. Slept well during the night ; headach considerably relieved ; complains of pain and oppression about the scrobiculus cordis, with a slight degree

of dyspnœa. Pulse 88, skin rather hot, tongue clean. Has been complaining for five days past ; used no medicine previous to his admission, except the emetic, from which he vomited a large quantity of green coloured bile.

*Recipe—Calomelanos grana duo,
Pulveris antimonialis grana tria, misce.*

Fiat dosis ter in die sumenda.

Injiciatur statim enema purgans.

Sept. 12th. Several copious stools from the powders ; headach still severe ; no pain in his chest or dyspnœa. Pulse 80, skin moist, tongue rather white.

Continuentur calomelas et pulvis antimonialis.

Imponatur vesicatorium nuchæ.

— 13th. Several greenish coloured stools after the powder ; blister has risen well ; headach almost gone ; a slight degree of oppression about the scrobiculus cordis and dyspnœa, but no pain. Pulse 86, heat natural, tongue white and loaded.

*Recipe—Calomelanos grana quinque,
Pulveris jalapæ scrupulum.*

Fiat bolus statim sumendus.

— 14th. Several copious stools of a more natural appearance after the purgative ; headach quite gone ; complains still of oppression about the epigastric region, and an inclination to vomit. Pulse 80, heat natural, tongue white.

Habeat ter in die tincturæ rhei drachmas duas.

— 15th. Continues free from the headach ; no nausea. Pulse natural, skin moist, bowels regular.

Dismissed.

Fort St. George, March 5, 1809.

CORPORAL ROBERTSON, Æt. 33.

Complains of severe headach, and pain in his loins, accompanied with lassitude and prostration of strength; urgent thirst, and loss of appetite; has also been repeatedly attacked with cold shivering since the 3d instant, when he was first taken ill. Pulse 86; skin moist, tongue white.

Habeat statim sulphatis sodæ unciam cum semisse.

— 6th. Salts purged him freely; slept none during the night; headach still severe; has had several fits of rigor since last visit. Pulse 86, skin moist, tongue clean, appetite bad, thirst urgent.

*Recipe.—Calomelanos grana duo,
Pulveris antimonialis grana tria.*

Sit pulvis quarta quaque hora sumendus.

Abradatur capillitium, et vespere imponatur vesicatorium capiti, dolore urgente.

— 7th. Blister was applied last night, but has not yet risen freely; headach nothing relieved; had three stools after his powders yesterday; sweated copiously during the night. Pulse 80, heat natural, tongue clean.

Repetantur pulveres.

— 8th. Blister not yet risen freely; had several copious stools after his powders; headach nothing relieved. Pulse 80, heat natural.

Continuentur pulveres.

Applicentur hirudines quatuor singulis temporibus.

March 9th. Leeches not applied till this morning ; no stool since last visit ; headach nothing relieved. Pulse 84, tongue white.

Habeat statim sulphatis sodæ unciam et semisse.

— 10th. A considerable quantity of blood was taken away by the leeches ; had several copious stools from the salts ; headach much relieved. Pulse 80, skin rather hot, tongue white.

*Recipe.—Calomelanos granum,
Pulveris rhei grana decem.*

Fiat pulvis ter in die sumendus.

— 11th. Powders purged him freely ; headach almost gone. Pulse natural, tongue rather white.

Dismissed, convalescent.

Fort St George, March 10, 1809.

JOHN CARR, Æt. 16.

Admitted yesterday. Complains of severe and constant pain in his forehead, with which he was seized on the evening of the 8th, accompanied with a sense of chillness and urgen thirst. Pulse 90, skin hot, tongue rather white.

Habeat statim sulphatis sodæ unciam cum semisse.

— 11th. Salts purged him freely ; headach considerably relieved. Pulse 86, heat natural, tongue clean.

*Recipe.—Calomelanos grana duo,
Pulveris antimonialis grana tria.*

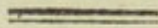
Fiat pulvis ter in die sumendus.

Vespere, capillitio abraso, applicetur vesicatorium dolore capitis urgente.

March 12th. Had several copious stools after his powders yesterday; blister was applied last night; headach considerably relieved. Pulse 80, tongue clean.

Habeat hora somni pulveris ipecacuanhæ et opii grana decem.

— 14th. Headach gone. Pulse 80, bowels regular. Dismissed.



Fort St. George, June 8, 1809.

JOHN CARR, Æt. 16.

Was seized yesterday morning with cold shivering, accompanied with severe pain in his forehead, and urgent thirst. A blister was applied to his head, and he took three purgative pills on his admission; has had five stools from the pills; blister has risen well; headach very little relieved. Pulse 94, skin hot, tongue white.

Capiat statim sulphatis sodæ unciam cum semisse.

Utatur vespere balneo tepido.

— 9th. Salts purged him freely; sweated copiously after the warm bath; head-ach still severe. Pulse 86, heat natural, tongue clean.

Recipe.—Calomelanos grana duo,

Pulveris antimonialis grana tria.

Sit pulvis ter die sumendus.

Repetatur balneum tepidum vespere.

— 10th. Still complains a good deal of headach, and slight pain in his loins. Pulse 80, skin cool, tongue clean, bowels regular.

Continuentur pulveres.

June 12th. Head-ach continues unabated: still complains of slight pain in his loins. Pulse 80, skin hot, tongue clean.

*Emittantur sanguinis ex arteria temporali uncia sex,
Continuentur pulveres.*

— 13th. Headach relieved by the bleeding. Pulse 78, heat natural, tongue clean, bowels regular.

Intermittantur medicamenta.

— 14th. Dismissed, convalescent.

Masulipatam, June 7, 1810.

JOHN MADILL, Æt. 21.

I was called to this man about 9 o'clock last night; he was then complaining of violent headach, was holding his head with both hands, and talking quite incoherently. Pulse at that time about 98, of moderate strength; heat natural. A blister was applied immediately to his head; took two ounces salts, and had some purgative injections thrown up; these have operated freely; blister has risen well; headach much relieved. Pulse 80, skin hot, tongue white.

*Recipe.—Calomelanos grana septem,
Pulveris jalapœ scrupulum.*

Sit pulvis statim sumendus.

— 8th. Medicine purged him freely; vomited a quantity of bile during the night; headach almost gone, but he complains a good deal of vertigo. Pulse 76, heat natural.

Repetatur pulvis.

June 9th. Two stools from his medicine; headach quite gone. Pulse and heat natural, tongue white.

Habeat statim infusi sennæ uncias quatuor.

— 12th. Still complains of vertigo and tinnitus aurium, but no headach. Pulse natural, skin cool, bowels open.

*Recipe.—Calomelanos grana duo,
Pulveris antimonialis grana tria.*

Sit pulvis ter die sumendus.

— 13th. *Continuentur medicamenta.*

— 16th. Free from complaint.

Dismissed.

Masulipatam, July 6, 1810.

PATT. CHURCHILL, *Æt.* 25.

Complains of severe headach and pains in his limbs, urgent thirst, and loss of appetite; was also affected with cold shivering on the night of the 4th instant, and again last night. Took a dose of calomel and jalap yesterday, after which he vomited a quantity of bile, and had several copious stools. Pulse 90, skin hot, tongue white.

Habeat olei ricini unciam et semisse, et balneum tepidum vespere.

— 7th. Had no stool from the castor oil yesterday, until he got two purgative injections in the evening; was again affected with rigor during the night. Pulse 90, skin hot, headach relieved.

*Recipe.—Calomelanos grana septem,
Pulveris rhei scrupulum.*

Fiat pulvis statim sumendus.

Continuetur balneum.

July 8th. Medicines produced no evacuations yesterday ; took four ounces infus. sennæ, and had some purgative injections last night ; these have produced several copious evacuations ; headach almost gone ; no rigor during the night. Pulse quick, heat natural.

*Habeat statim infusi sennæ uncias quinque, et, hora somni,
Pulveris ipecacuanhæ et opii grana duodecim.*

—— 9th. *Continuentur, medicamenta.*

—— 10th. Vomited his medicine yesterday ; still complains of headach and vertigo. Pulse quick, skin hot.

*Recipe.—Calomelanos grana septem,
Pulveris rhei scrupulum ; misce.
Sit pulvis statim sumendus.*

—— 11th. Only one stool since last visit ; headach relieved.

Capiat statim olei ricini uncias duas.

—— 12th. Dismissed.

Masulipatam, Aug. 9, 1810.

JAMES STEVENSON, Æt. 16.

Complains of severe headach and pains in his limbs ; urgent thirst, and loss of appetite ; was also affected with cold shivering during the night. Pulse 96, skin hot, tongue white, bowels open.

*Habeat statim sulphatis sodæ uncias duas.
Habeat etiam enema purgans.
Vespere utatur balneo tepido.*

Aug. 10th. Three copious stools after the salts; felt considerable relief from the warm bath, but still complains of headach and pains in his lower extremities. Pulse 98, skin moist, tongue white, face flushed.

Habeat infusi sennæ uncias duas omni hora, ad quartam vicem, et quam primum enema purgans.

Vespere imponatur vesicatorium, capillitio abraso, si dolor capitis perstaret.

— Five P. M. Has been lying asleep during the greater part of the day, at present he complains of no pain in his head, but seems to have a great deal of febrile anxiety and oppression about him. A remarkable change has taken place in his pulse since morning, from being full and about 98 in a minute, it is now much smaller, and not more than 84; infus. sennæ has operated pretty well.

Accipiat quam primum enema purgans.

Habeat etiam vini uncias tres.

— 11th. Has slept very little during the night, is at present lying moaning, with a great degree of febrile oppression; complains of slight headach and vertigo. Pulse 90, more full than last night, skin hot, tongue white.

Affundatur per caput et totum corpus multum aquæ frigidæ.

Capillitio abraso imponatur vesicatorium capiti.

Recipe.—*Calomelanos, pulveris antimonialis, utriusque, grana tria; sit pulvis ter de die sumendus.*

— 12th. Felt immediate relief from the cold affusion yesterday; his pulse fell to about 80, and became softer; blister has risen well, and removed the headach; has slept well during the night, and feels himself much better to day; but complains much of lassitude and debility. Pulse 80, skin cool, tongue white.

*Habeat pulveris corticis cinchonæ drachmam quater de die.
Habeat etiam vini libram dimidiam, partitis vicibus in dies
porrigendam.*

July 13th. Still complains a little of headach, and feels extremely weak and languid. Pulse 84, skin moist.

Continuentur cortex et vinum.

Vespere injiciatur enema purgans.

— 14th. Is at present free from pain, but complains of vertigo on attempting to get up. Pulse 86, skin extremely hot.

Repetatur affusionem aquæ frigidæ.

Continuentur alia.

— Five P. M. Complains again of headach this evening.

Applicentur hirudines duodecim temporibus.

— Nine P. M. Leeches ; bled freely ; headach nothing relieved. Pulse 90, skin hot.

Imponatur vesicatorium nuchæ.

Utatur quam primum balneo tepido.

— 15th. Experienced relief from the warm bath last night ; blister has risen well ; headach removed. Complains of difficulty in passing his urine ; lies almost constantly dosing, except when roused to take his medicines. Pulse 90, and smaller than usual ; skin rather cold ; bowels regular.

Capiat misturæ camphoræ unciam omni hora.

Continuetur cinchona ut antea.

Habeat vini libram in dies.

— 16th. Is at present free from pain. Pulse 86, fuller than yesterday, heat natural, bowels regular

Continuentur omnia.

Five P. M. Complains much of languor and oppression, but continues free from pain. Pulse 90, skin hot.

*Humectetur corpus subinde aqua frigida cum aceto mista.
Habeat hora somni calomelanos grana octo.*

July 17th. Experienced much relief from the vinegar and water; no stool since he took the calomel. Pulse 84, heat natural, tongue white.

Capiat infusi sennæ uncias duas omni hora ad quartem vicem.

Omittatur cinchona.

— 18th. Medicine purged him freely; no pain whatever. Pulse 84, tongue white.

Continuentur cortex et vinum ut antea.

— 20th. Convalescent.

Continuentur medicamenta.

— 23d. Convalescent. Bowels regular.

Continuentur medicamenta.

— 25th. No complaint but debility. Pulse natural, bowels regular.

Continuentur medicamenta.

— 26th. Dismissed.

Masulipatam, November 7, 1810.

WILLIAM M·KENNA, Æt. 17.

Was attacked last night with cold shivering, headach, and pains in his limbs; was admitted into hospital about two o'clock

this morning, and took a dose of calomel and rhubarb, which has operated pretty freely; headach somewhat relieved; eye-balls turgid. Pulse 100, tongue clean.

Emittantur e brachio sanguinis uncia sexdecim.

Habeat omni hora ad quartam vicem infusi sennæ uncias duas.

Five P. M. Headach relieved after the bleeding; medicine has purged him freely. Pulse 98, skin intensely hot.

Affundatur per totum corpus multum aquæ frigidæ.

— 8th. Sweated profusely after the cold affusion; headach much relieved. Pulse 94, skin rather hot, tongue clean, bowels open.

Repetatur infusum sennæ ut heri præscriptum.

— 9th. Infusum sennæ purged him freely; complains of no pain whatever. Pulse 86, heat natural, tongue clean.

Habeat pulveris corticis cinchonæ drachmam ter de die.

— 10th. Free from complaint.

Dismissed.

Trichinopoly, February 21, 1812.

JOHN ARCHIBALD, Æt. 19.

Five P. M. Was seized two days ago, while on guard, with a cold shivering, headach, and urgent thirst. Complains at present of severe pain in his head, loins, and lower extremi-

ties ; prostration of strength, and urgent thirst ; face flushed ; skin intensely hot. Pulse quick, bowels regular.

*Affundatur quam primum aquam frigidam more solito.
Sumat statim sulphatis magnesiæ uncias duas.*

Feb. 22d. Felt considerable relief from the cold affusion, and sweated copiously after it ; salts have operated freely ; complains still of headach and oppression about the præcordia, with considerable pain about the scrobiculus cordis. Pulse quick, skin hot, tongue foul.

*Emittantur sanguinis uncia duodecim.
Capiat duabus vicibus infusi sennæ uncias quatuor.*

Five P. M. Felt considerable relief after the bleeding, but now complains again of severe pain about the pit of his stomach, with dyspnœa. Infus. sennæ has produced several stools of a natural appearance. Pulse quick, skin hot.

*Repetatur venæ sectio et iterum effundantur sanguinis un-
ciæ duodecim.*

*Habeat pulveris ipecacuanhæ et opii grana quindecim.
Imponatur vesicatorium scrobiculo cordis.*

— 23d. Considerably relieved by the bleeding ; sweated copiously during the night ; blister has risen well ; still complains of slight pain about the lower part of his chest. Pulse quick, skin moist, tongue white.

*Sumat statim infusi sennæ uncias duas, omni hora ad ter-
tiam vicem repetendas.*

— 24th. Several stools of a natural appearance after the infus. sennæ ; still complains of pain at the scrobiculus cordis and dyspnœa. Pulse quick, heat natural, tongue foul.

Recipe.—*Calomelanos grana tria,*
Pulveris rhei grana decem.

Sit pulvis statim sumendus, et repetatur omni bihorio ad tertiam vicem.

Feb. 25th. Several bilious stools after his medicine yesterday; still complains a good deal of pain about the scrobiculus cordis. Pulse natural, skin cool, tongue white.

Sumat quam primum infusi sennæ uncias tres.

— 26th. Stools still accompanied with a great deal of bile; pain about the scrobiculus cordis relieved. Pulse natural, skin cool.

Repetatur infusum sennæ ut heri.

— 27th. Pain at the pit of his stomach much diminished; stools pretty natural.

Continuetur infusum sennæ.

— 28th. *Omittatur infusum sennæ.*

Habeat pulveris rhei grana decem ter die.

— 29th. Complains this morning of pain in his right side, particularly on a full inspiration. Pulse and heat natural, bowels open.

Imponatur vesicatorium parti dolenti.

March 1st. Blister has risen well, and given him much relief. Pulse natural, skin cool.

Capiat statim infusi sennæ uncias quatuor.

— 2d. Pain about the epigastrium almost gone; several stools of a natural appearance since last visit. Pulse and heat natural, tongue white, appetite bad, thirst urgent.

Habeat pulveris rhei grana quindecim ter in die.

March 4th. Complains more this morning of pain at the scrobiculus cordis and dyspnœa. Bowels regular.

Habeat statim infusi sennæ uncias quatuor.

Imponatur vesicatorium parti dolore affecti.

— 5th. Blister not yet risen freely ; pain continues ; bowels open.

— 7th. Blister rose freely ; pain relieved. Pulse natural, bowels bound.

Sumat statim olei ricini uncias duas.

— 8th. Several dark coloured stools after the castor oil ; pain continues.

Capiat infusi sennæ uncias quatuor.

Habeat mane et vespere pilularum hydrargyri grana quinque.

— 9th. *Continuentur pilulæ hydrargyri.*

— 12th. Dismissed.

Trichinopoly, March 25, 1812.

JOHN M·LEAN, Æt. 20.

Admitted yesterday, complaining of severe headach, urgent thirst, and loathing of food ; had a dose of salts, which have operated freely, but given him no relief from the headach. Pulse quick, skin hot, face a little flushed.

Applicentur hirudines novem singulis temporibus.

Habeat statim infusi sennæ uncias duas, et repetatur omni hora ad tertiam vicem.

March 26th. Leeches bled freely; infus. sennæ has produced no evacuation; headach relieved; had an attack of rigor yesterday forenoon. Pulse quick, heat natural.

*Habeat statim sulphatis magnesiæ uncias duas; et
Injiciatur quam primum enema purgans.*

— 27th. Had another attack of rigor last night; only one stool from the salts; headach much easier. Pulse quick, skin moist.

*Habeat statim infusi sennæ uncias tres, et repetatur omni
hora donec alvus soluta sit.*

— 28th. Had four doses of the infus. sennæ, which produced only two stools; no rigor since last visit; headach almost gone; appetite pretty good; thirst still urgent.

Sumat statim olei ricini uncias duas.

— 29th. Castor oil produced several bilious stools; complains more of headach this morning. Pulse quick, skin rather hot, tongue foul.

*Habeat statim infusi sennæ uncias duas, et repetatur omni
hora ad tertiam vicem.*

Lavetur corpus subinde aqua frigida cum aceto mista.

— 30th. Several stools of a more natural appearance after the infus. sennæ; headach rather increased. Pulse quick, skin moist.

Repetatur infusum sennæ ut heri præscriptum.

Abradatur Capillitium, et imponatur vesicatorium capiti.

— 31st. No stool since last visit; blister has given him much relief. Pulse natural, tongue foul.

Habeat olei ricini uncias duas.

April 1st. Oil operated freely; headach easier; skin moist, tongue foul.

Capiat statim infusi sennæ uncias quatuor.

— 2d. *Repetatur infusum sennæ.*

— 3d. Still complains of slight headach. Pulse natural, skin rather hot, bowels costive.

Sumat pilularum colocynthidis compositarum tres.

— 4th. Several bilious stools after the pills; headach continues in a slight degree.

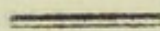
Habeat statim infusi sennæ uncias quatuor.

— 5th. *Repetatur infusum sennæ.*

— 7th. Complains occasionally of slight headach; bowels open.

Intermittatur infusum sennæ.

— 10th. Dismissed.



Trichinopoly, May 12, 1812.

Five P. M.

JOHN LECKIE, Æt. 20.

Brought into the hospital in a state nearly insensible; points to his head as the seat of pain; his skin feels intensely hot. Pulse 110, of moderate strength; countenance expressive of great anxiety, eyeballs turgid and inflamed.

Emittantur sanguinis e brachio uncia viginti quinque.

Imponatur vesicatorium dorso, inter scapulas.

Habeat statim sulphatis sodæ uncias duas, et injiciatur enema purgans.

May 13th. Salts have operated freely; still complains of headach and pains in his joints. Pulse 80, skin cool. Can assign no cause for his complaints.

Habeat quam primum infusi sennæ uncias tres, et repetatur omni hora ad tertiam vicem.

Vespere utatur balneo tepido.

— 14th. Had three stools after the infus. sennæ yesterday; still complains of headach, and had a fit of rigor about three o'clock this morning. Pulse 80, skin cool, tongue white.

Capiat statim pulveris jalapæ compositi semi-drachmam.

— 15th. Powder operated freely; complains of no headach this morning, but is affected with vertigo on attempting to walk. Pulse natural, skin cool, tongue clean.

Capiat decocti cinchonæ uncias duas ter de die.

— 17th. Complains this morning of slight pain in his right side, under the cartilages of the false ribs. Pulse natural, tongue white, bowels regular.

Intermittatur decoctum cinchonæ, et capiat statim pulveris jalapæ compositi semi-drachman.

— 18th. No stool from the powder; pain of side gone. Pulse natural, tongue white.

Habeat statim sulphatis sodæ uncias duas.

— 19th. Salts operated freely; continues free from any pain of side, but complains this morning of slight headach.

Capiat statim infusi sennæ uncias quinque.

— 20th. Infus. sennæ operated freely; stools of a

brownish colour ; still complains of headach, and had a fit of rigor last night. Pulse quick, skin hot.

Repetatur infusum sennæ ut antea.

May 21st. Several stools of a natural appearance after the infus. sennæ ; complains this morning of a sore throat, and upon inspection several superficial ulcerations are observed on each of the tonsils, and on the velum pendulum palati.

Utatur gargarismate ex decocto corticis cinchonæ et acido sulphurico.

— 24th. The ulcers in his throat mostly healed up ; complains to-day of pain in his breast and dyspnœa. Pulse natural, bowels open.

Imponatur vesicatorium pectori.

Continuetur gargarisma.

— 25th. Blister has risen well ; pain of breast and dyspnœa relieved.

Continuetur gargarisma.

— 30th. His throat continues a good deal inflamed, but the ulcers are almost healed up.

Continuetur gargarisma.

— 31st Dismissed.

*Bangalore, February 7th, 1813.
Six P. M.*

HUGH CREIGHTON, Æt. 24.

Was seized yesterday morning, when coming off duty, with slight rigors, severe headach, urgent thirst, and prostration of

strength ; bowels have been for some days past rather loose, with occasional attacks of griping ; had a dose of salts this morning, which has produced two stools. Headach unabated, face flushed, skin hot, pulse 90, tongue clean.

*Emittantur sanguinis uncia sexdecim, et
Injiciatur statim enema purgans.*

Feb. 8th. Blood drawn last night exhibits no inflammatory appearance ; injections followed by several scanty stools streaked with blood ; head-ach very little relieved. Pulse 88, skin rather hot, tongue clean.

*Applicentur hirudines sex singulis temporibus.
Capiat misturæ salinæ uncias duas omni hora.*

— Six P. M. Leeches ; bled freely ; has passed to-day a small quantity of green bilious fæces ; headach continues severe ; complains also of pain and tension in his bowels, and is affected with a great degree of febrile anxiety and alarm. Pulse 90, skin moist, thirst urgent.

*Injiciatur statim enema purgans.
Vespere utatur balneo tepido ; et capiat hora somni haustum
anodynum cum tincturæ opii drachma.*

— 9th. Passed some more bilious fæculent matter after the injection ; pain of bowels rather easier. Pulse 90, skin hot, tongue white.

Habeat statim infusi sennæ uncias duas, omni hora ad tertiam vicem repetendas.

— Six P. M. *Capiat hora somni haustum ex vino antimoniali et tinctura opii.*

Utatur balneo tepido.

— 10th. Several bilious stools after the purging mixture ; slept well, and sweated a good deal during the night ; still complains of headach and urgent thirst, and has thrown

up a small quantity of bile this morning. Pain of bowels continues easier. Pulse 88, skin hot, tongue foul.

Repetantur mistura purgans, et haustus anodynus, ut heri præscripta.

Feb. 11th. Rejected the mixture by vomiting yesterday; has had several stools of a more natural appearance since last visit; headach almost gone; complains a good deal of griping in his bowels, and flatulence. Pulse 78, skin cool, tongue white.

Habeat statim tincturae rhei unciam.

— 12th. Several bilious stools after the tinct. rhei; still complains of griping and flatulence. Pulse 80, heat natural, tongue clean.

Recipe—calomelanos grana tria, opi granum; misce.

Sit pilula mane et vespere sumenda.

— 13th. Evacuations more natural; headach gone; still complains of occasional griping.

Continuetur pilula.

— 14th. *Continuetur pilula.*

— 15th. Free from complaint.

Dismissed.

Bangalore, February 15, 1813.

JACOB GREENWAY, Æt. 21.

Complains of severe headach and pains in his bones, urgent thirst, and loss of appetite; complains also of soreness and

tension in the lower part of his belly. Pulse 94, skin covered with perspiration, tongue clean, bowels rather costive.

Applicentur hirudines duodecim temporibus.

Habeat statim sulphatis magnesicæ uncias duas ; et etiam Injiciatur enema purgans.

— Six P. M. Leeches bled freely ; salts produced several copious stools ; headach relieved. Skin moist.

Utatur quam primum balneo tepido.

— 16th. Headach much relieved ; he complains however of vertigo on attempting to get up ; still complains much of pains in his bones, and griping. Pulse 88, skin hot, tongue clean.

Habeat statim misturæ purgantis uncias duas, et omni hora ad tertiam vicem repetendas.

Capiat hora somni haustum anodynum antimoniale.

— 17th. Several bilious stools after the purging mixture yesterday ; slept well, and sweated copiously during the night ; complains much this morning of pain and oppression about the epigastrium. Pulse 80, heat natural, thirst urgent.

Repetatur mistura purgans.

— 18th. Mixture operated freely ; stools still bilious, and his urine high coloured ; has been much distressed with headach during the night, and complains more to-day of pain in the epigastrium. Pulse 78, skin cool.

Repetatur mistura purgans et imponatur vesicatorium epigastrio.

— 19th. Four or five stools of a more natural appearance after the mixture yesterday ; blister has risen well, and

given him much relief. Pulse and heat natural, tongue clean, thirst urgent.

Habeat misturæ salinæ uncias duas omni hora.

Feb. 20th. Convalescent.

Continuetur mistura salina.

— 21st. Convalescent.

Intermittantur medicamenta.

— 22d. Is now entirely free from pain. Pulse and heat natural, tongue clean, bowels regular; blister not yet healed up.

— 24th. Free from complaint.

Dismissed.

Bangalore, March 2, 1813.

ARCHIBALD BLAIR, *Æt.* 22.

Complains of headach, pain in his bones, oppression about the præcordia, urgent thirst, and loss of appetite; and has also been for two days past occasionally affected with slight rigors. Pulse 94, skin rather hot, bowels costive.

Injiciatur statim enema purgans.

Habeat etiam sulphatis sodæ uncias duas.

Six P. M. Four or five dark coloured stools after the salts; headach nothing relieved. Face flushed, pulse 100, skin intensely hot.

Statim utatur affusione aquæ frigidæ more solito.

March 3d. Sweated profusely after the cold affusion, and slept well during the night; headach and oppression about the præcordia relieved. Pulse 80, skin cool, tongue white.

Capiat statim misturæ purgantis uncias duas omni hora ad tertiam vicem repetendas.

— 4th. Several dark coloured stools after the purging mixture; headach almost gone. Pulse 74, heat natural, tongue rather white.

Repetatur mistura purgans.

— 5th. Mixture operated freely; stools of a natural appearance. Pulse 70, heat natural.

Dismissed.

APPENDIX III.

DYSENTERY.

Wallajahbad, February 20, 1808.

GEORGE BROWN, *Æt.* 23.

Complains of fixed pain in the hypogastric region, which is much increased on going to stool ; has been much purged during the night ; stools accompanied with a large quantity of blood. Pulse 80, heat natural, tongue clean.

A blister to the pained part.

An injection with decoction of bark and tinct. of opium morning and evening.

— 21st. Pain in the hypogastric region much relieved by the blister ; stools frequent, but accompanied with less blood. Pulse 80, skin hot, tongue clean.

Recipe.—Pulveris antimonialis grana tria, opii granum.

Sit pilula quarta quaque hora sumenda.

Continuetur enema ut heri præscriptum.

Mane et vespere utatur balneo tepido.

— 22d. *Continuetur medicamenta.*

Feb. 23d. Complains to-day of pain and oppression about the scrobiculus cordis, which is particularly distressing during the night; is often affected with nausea; stools less frequent, and of more natural appearance. Pulse 76, heat natural.

Omittatur pilula.

Continuentur enema et balneum.

Imponatur vesicatorium scrobiculo cordis.

— 24th. *Sumat opii grana duo nocte maneque.*

Continuentur enema et balneum.

— 25th. *Continuentur medicamenta.*

— 26th. Was afflicted during the night with bilious vomiting; complains to-day of headach and thirst; stools frequent and of a red colour; is at present free from any pain in his bowels. Pulse 80, skin hot.

Omittantur medicamenta.

Habeat pilulam ex calomelane et extracto colocynthides ter die.

— 27th. *Continuentur pilulæ.*

— 28th. *Continuentur pilulæ.*

— 29th. *Habeat pulveris ipecacuanhæ et opii grana duodecem mane et vespere.*

March 1st. Dismissed.

Wallajahbad, March 4, 1808.

JOHN BLACK, Æt. 24.

Complains of severe and fixed pain over the fore part of the abdomen ; has much straining on going to stool ; passes a large quantity of blood along with his stools. Pulse 80, heat natural.

Utatur balneo tepido mane et vespere.

Imponatur vesicatorium abdomini.

— 5th. *Recipe.—Pulveris radices ipecacuanhæ grana quinque, opii granum.*

Sint pilulæ duæ quas capiat secunda quaque hora, dummodo vomitio non excitetur.

— 6th. Took the pills yesterday without any obvious operation ; pain of bowels much relieved ; has had only two stools in the course of last night. Pulse 68, heat natural.

Habeat opii granum et infusi ipecacuanhæ uncie dimidium tertia quaque hora.

Habeat vini libram in dies.

— 7th. Took his medicines yesterday without experiencing any degree of nausea ; they produced, however, a copious perspiration ; has been a good deal griped during the night, but complains of no fixed pain in his bowels ; has had but one stool this morning, passed freely, and with a very slight tinge of blood. Pulse natural, skin cool.

Continuentur opium et infusum ipecacuanhæ secunda quaque hora.

March 8th. Medicine produced a great degree of nausea, and a very profuse perspiration; complains much to-day of griping in his bowels. Stools less frequent, and without any appearance of blood.

Continuentur medicamenta.

Accipiat per anum, tertia quaque hora,

Infusi ipecacuanhæ uncias, octo et tincturæ opii drachmam.

— 9th. Slept very well during the night, and is to-day free from any pain whatever; sweated a great deal after his medicine yesterday, but experienced no degree of nausea; has had but one stool since last visit, which was of a natural appearance, but passed with a good deal of difficulty. Pulse and heat natural, tongue clean.

Habeat tincturæ rhei drachmæ dimidium ter de die.

Omittantur alia medicamenta.

— 10th. Has been purged a good deal, and has passed a large quantity of blood, since he took his medicine yesterday; complains to-day of griping in his bowels. Pulse and heat natural.

Repetantur opium et infusum, ipecacuanhæ ut antea, tertia quaque hora.

— 11th. Has had but one stool since last visit, which was quite of a natural appearance; griping gone. Pulse and heat natural, tongue clean.

Continuentur opium et ipecacuanhæ bis die.

— 12th. Has had but one stool since last visit, which was quite of a natural appearance; is at present free from any complaint whatever.

Dismissed.

Wallajahbad, March 21, 1808.

CORNELIUS LYONS, Æt. 24.

Complains of severe fixed pain in the lower part of the abdomen ; has frequent loose stools, accompanied with blood and mucus ; tenesmus was very distressing till he got a purgative injection last night, since which it is much abated ; appetite impaired ; thirst incessant. Pulse 80, skin cold and moist, tongue clean. Was in the hospital about ten weeks ago with symptoms of common diarrhœa ; was dismissed at his own request, and has done his duty since.

Imponatur vesicatorium regioni hypogastricæ.

Habeat opii grana duo, infusi ipecacuanhæ unciam et semisse quarta quaque hora.

— 22d. Pain in the hypogastric region much relieved by the blister ; has had only four or five stools since last visit, still however accompanied with a small quantity of blood ; no tenesmus ; appetite improved ; thirst still urgent. Pulse 78, skin moist, tongue clean.

Continuentur opium et ipecacuanha.

— 23d. *Continuentur medicamenta.*

— 24th. Pain in the hypogastric region quite gone ; stools less frequent, and accompanied with some mucus, but no blood ; tenesmus increased ; thirst still urgent. Pulse natural, skin moist, tongue clean.

Continuentur medicamenta.

Injiciatur bis die infusi ipecacuanhæ uncias quatuor, opii grana quinque, decocti oryzæ libram.

March 25th. Tenesmus relieved by the injections yesterday; medicines followed by a copious diaphoresis; stools still frequent, and accompanied with mucus, but no blood; complains of occasional griping, but has no fixed pain in his bowels; urine high coloured; appetite improving; thirst great. Pulse 78, skin moist, tongue clean.

Continuentur medicamenta.

— 26th. Stools still frequent, accompanied with mucus, but no blood; tenesmus as yesterday. Pulse 76, heat natural, tongue clean.

Continuentur medicamenta.

— 27th. Medicines followed by a copious diaphoresis, and an irresistible tendency to sleep; experiences much relief from the injection; stools less frequent, still dark coloured, and accompanied with mucus; tenesmus diminished. Pulse 74, skin cool, tongue clean.

Continuentur medicamenta.

— 28th. Stools still dark coloured, and accompanied with a small quantity of mucus; complains of no pain of bowels; tenesmus gone. Pulse and heat natural, tongue clean.

Continuentur medicamenta.

— 29th. Has had three stools of a more natural appearance since last visit; continues free from any pain of bowels or tenesmus. Pulse and heat natural, tongue clean.

Continuentur omnia.

— 30th. Continues free from any pain of bowels; has had a slight return of tenesmus; has had four stools since last visit, accompanied with a discharge of flatus and white frothy matter. Pulse and heat natural, tongue clean.

Intermittantur opium et ipecacuanha.

Habeat statim tincturæ rhei unciam dimidiam.

March 31st. Has been much distressed with tenesmus, but has passed nothing by stool except a little white frothy mucus since last visit ; complains much of griping in the lower part of his belly. Pulse and heat natural, tongue clean.

Habeat statim sulphatis sodæ unciam.

Recipe.—*Olei ricini unciam,*

Decocti oryzæ libram, misce.

Sit enema quam primum injiciendum.

April 1st. Had several copious very dark coloured stools, after the salts yesterday ; griping and tenesmus much relieved. Pulse natural, skin moist, tongue clean.

Habeat statim tincturæ rhei drachmas tres ;

Et hora somni capiat opii grana duo,

Infusi ipecacuanhæ unciam.

— 2d. Had three stools of a natural appearance after the tinctura rhei yesterday. Pulse natural, skin moist, tongue clean.

Dismissed.—Convalescent.

Wallajahbad, March 25, 1808.

ALEXANDER M'CULLOCH, Æt. 21.

Was admitted last night, complaining of severe pain in the hypogastrium, which is now much relieved by a purgative injection, which he had upon his admission. Stools very frequent, and accompanied with blood and mucus ; slight tenesmus. Pulse 78, skin moist, tongue white, appetite bad, thirst urgent. Complaints of ten day's standing ; has been bled to twelve ounces, and used purgatives and diaphoretics.

Recipe.—*Opii granum,*
Infusi ipecacuanhæ unciam dimidiam, misce.
Sit mistura; capiat tertia quaque hora.
Recipe.—*Decocti cinchonæ uncias quatuor,*
Opii grana quinque,
Decocti oryzæ libram; misce.
Sit enema ter de die injiciendum.

March 26th. Experienced much relief from the injections yesterday; stools less frequent, and without any blood; pain in the hypogastrium quite gone; is frequently affected with bilious vomiting; appetite bad; thirst urgent. Pulse 80, skin moist, tongue white and furred.

Omittatur mistura.
Habeat statim pulveris ipecacuanhæ scrupulum.
Continuentur enemata.

— 27th. Vomited a large quantity of green coloured bile after his emetic yesterday. Stools very frequent, and accompanied with mucus, but no blood; no pain of bowels or tenesmus. Pulse 76, skin cool, tongue still white, appetite improved, thirst diminished.

Continuentur enemata.
Habeat in dies vini libram dimidiam.

— 28th. Has had about six stools since last visit, accompanied with some mucus, but no blood; continues free from any pain of bowels or tenesmus. Pulse and heat natural, tongue white.

Continuentur enemata et vinum.

— 29th. Is at present free from any pain; two stools of a natural appearance since last visit.

Dismissed.—Convalescent.

Sadrass, April 12, 1808.

SERJEANT PARK, Æt. 27.

Has been labouring under symptoms of dysentery for upwards of four months past; at present he seems much exhausted by the march; is much distressed with nausea, and has vomited a considerable quantity of green coloured bile this morning; complains of no particular pain; stools very frequent, and accompanied with a good deal of mucus. Pulse 90, skin moist, tongue clean.

Recipe.—Pulveris ipecacuanhæ grana quindecim.

Opii grana sex.

Forma in pilulas tres, quarum capiat unam quartam quaque hora.

— 13th. *Repetantur pilulae.*

— 14th. Sweated copiously after his pills; stools less frequent and passed more freely. Pulse 90, tongue clean.

Recipe.—Tincturæ opii,

Vini antimonialis, utriusque, drachmas sex,

Aquæ uncias duas et semisse; misce.

Sit mistura cujus capiat unciam quartam quaque hora.

— 15th. Sweated a good deal after his medicine yesterday; stools still very frequent, of a whitish colour, and accompanied with a great discharge of flatus; is occasionally attacked with griping, but complains of no fixed pain. Pulse 90, skin moist, tongue clean.

Continuetur mistura.

— 16th. *Continuetur mistura.*

April 17th. Is frequently attacked with griping, but continues free from any fixed pain in his bowels; stools still very frequent, of a dark colour, and occasionally accompanied with a small quantity of blood; appetite improved; thirst diminished. Pulse 84, heat natural, tongue clean.

Habeat omni trihorio opii grana duo, et infusi ipecacuanhæ unciam.

— 18th. Stools have been very frequent during the night, of a whitish colour, and accompanied with a great discharge of flatus; complains much of griping in the lower part of his belly. Pulse 84, tongue clean.

Continuentur opium et ipecacuanha.

Recipe.—Tincturæ opii drachmas duas,

Decocti oryzae libram, misce.

Fiat enema mane et vespere injiciendum.

— 19th. Complains of a general soreness all over the surface of the abdomen; experienced considerable relief after his injections yesterday; stools very frequent, and accompanied with a great discharge of flatus. Pulse 86, and weak, tongue clean.

Continuentur medicamenta.

Fomenta calida abdomini adhibenda.

— 20th. Experienced much relief from the fomentations yesterday; still complains of a soreness over the surface of the abdomen; stools less frequent. Pulse 86, tongue clean.

Continuentur omnia ut heri.

— 21st. Has been much griped, and has had frequent dark coloured stools during the night. Pulse 86, heat natural, tongue clean. Took a few mercurial pills at Wallajahbad, but never had his mouth affected by them.

Infricatur cruribus bis die unguentum hydrargyri drachmam dimidiam.

Habeat opii grana duo mane et vespere.

April 23d. Stools less frequent, and passed more freely ; has had no griping or pain in his bowels for two days past. Pulse 86, skin rather hot, tongue clean.

Continuentur opium et unguentum hydrargyri.

— 24th. Stools have been more frequent during the night, of a greenish colour, and passed without straining ; complains again to-day of pain all over the surface of the abdomen. Pulse 86, heat natural, tongue clean.

Continuetur unguentum.

Continuetur etiam opium ter die.

— 25th. Stools have been very frequent during the night, of a dark brown colour ; pain in the abdomen somewhat relieved. Pulse 90, heat natural, tongue white.

Continuetur unguentum.

Habeat tincturæ rhei drachmas duas ter die.

— 26th. Has had frequent dark coloured stools since he took the tinct. rhei ; is to-day free from any pain in his bowels. Pulse 90, heat natural, tongue clean ; mouth not yet affected by the mercury.

Continuetur unguentum.

Repetatur opium ter die sumendum.

— 27th. Mouth begins to be affected by the mercury ; stools less frequent. Pulse 90, and weak, tongue clean.

Continuetur opium.

Continuetur etiam unguentum, semel in die tantum.

— 28th. Mouth slightly affected by the mercury ; complains of little or no pain in his bowels, but is extremely rest

less and uneasy, and sleeps none during the night; stools less frequent, and alternately of a white and green colour. Pulse 90, and very small, tongue clean.

Omittatur unguentum.

Habeat mane et vespere tincturæ opii drachmas duas.

May 2d. Has used the tinct. opii regularly, morning and evening, since last week; mouth still affected by the mercury; stools less frequent, and passed pretty freely; complains of no particular pain, but of lassitude and prostration of strength. Pulse 90, and small, tongue clean.

Continuetur tinctura opii.

— 4th. Stools have been more frequent during the night; but are passed freely, and of a more natural appearance; is at present free from any pain of bowels. Pulse 90, tongue clean.

Intermittatur tinctura opii.

Habeat ter indies decocti angusturæ unciam, cum opii granis duobus.

— 5th. Angustura agreed well with his stomach; stools less frequent, but of a dark brown colour; continues free from any pain of bowels; complains of extreme lassitude and prostration of strength, with slight dyspnœa. Pulse 90, and very small, heat natural, tongue clean.

Continuentur angustura et opium.

— 7th. Experienced a slight degree of nausea after his medicine yesterday; stools have been more frequent during the night, but passed without straining. Pulse 90, and very small, tongue clean, heat natural.

Continuentur angustura et opium.

May 9th. Stools very frequent, and accompanied with mucus and blood, but passed without straining; complains more to-day of pain in his bowels. Pulse 86, and very small, respiration hurried, heat natural, tongue clean.

Intermittatur angustura.

Continuetur opium ut antea.

— 10th. Pain of bowels much relieved; stools less frequent, but still mixed with a good deal of blood and mucus; no tenesmus. Pulse 90, heat natural, tongue clean.

Continuetur opium.

— 11th. Stools still frequent, but free from any mixture of blood, and passed without straining; continues free from any pain of bowels. Pulse 86, heat natural, tongue clean.

Continuetur opium.

— 12th. *Continuetur opium.*

— 13th. Stools still very frequent, and occasionally mixed with a small quantity of blood; no pain of bowels; no tenesmus. Pulse 80, tongue clean.

Continuetur opium.

— 16th. Became delirious about 12 o'clock last night, and is at present lying moaning, without making any particular complaint; has had two stools during the night. Pulse 78, and very small, tongue clean, respiration quick.

Continuetur opium ut antea, et habeat vini libram in dies.

— 17th. Seems to-day more collected, but was affected with a high degree of delirium during the night; complains of violent spasmodic twisting in his bowels, and constant vertigo; stools less frequent. Pulse 80, heat natural.

Continuetur opium et vinum.

May 18th. Died at six this morning.

The body was examined three hours after death. On opening the abdomen, the fat in the omentum, and around the different viscera, appeared in that gelatinous state in which it is frequently seen in dropsical bodies; there was no effusion however, into this cavity: the liver seemed of a dark colour, and had some small white spots on its concave surface; the gall-bladder was distended with a quantity of very thin light coloured bile—indeed it had more the appearance of serum than bile; the stomach and intestines appeared sound. On examining the cæcum, it appeared sound externally; but, when laid open, it was found much inflamed on its inner surface, and contained a quantity of dark coloured fæces; the coats of the colon were so much thickened that it felt like a piece of solid rope; one mortified spot was discovered in its sigmoid flexure: on slitting it open, its inner surface was found almost covered with superficial ulcerations, and contained a quantity of pus; the rectum was in the same state. The cavity of the thorax was examined, but exhibited nothing very particular; there was one white spot on the surface of the heart.

Sadrass, April 21, 1808.

LUKE BUNTER, Æt. 30.

Was admitted into the regimental hospital at Wallajahbad about the beginning of February. At that time he had frequent mucous stools, accompanied with blood, and passed with

much straining; complained of a severe and constant pain in the anus and perinæum, from which he is now completely free; stools now very frequent and green coloured, is occasionally attacked with griping, but has no fixed pain in any part of his body. Pulse 76, heat natural, appetite bad, complexion sallow.

Utatur unguenti hydrargyri semi-drachma, more solito mane et vespere.

April 23d. Continues free from any particular pain; stools frequent and white coloured; no tenesmus; mouth not yet affected. Pulse 76, heat natural, tongue clean.

Continuetur unguentum.

— 27th. Mouth not yet affected by the mercury; stools frequent, white coloured, and occasionally accompanied with blood; complains of occasional griping in his bowels, but has no fixed pain in any part of his body. Pulse 76, skin hot, tongue white.

Continuetur unguentum.

Habeat statim olei ricini unciam.

May 1st. Mouth not affected; stools still frequent, and white coloured, but passed freely and without any pain. Pulse 76, heat natural, tongue clean.

Intermittatur unguentum.

Recipe.—Massæ pilularum hydrargyri grana quinque,

Opii grana duo.

Fiant pilulae duae, nocte maneque sumendæ.

— 4th. Mouth not affected in the least degree by the mercury; is occasionally attacked with griping, but has no fixed pain in his bowels; has generally about six or eight

white coloured stools in the course of 24 hours. Pulse 76, tongue rather white.

Continuentur pilulae.

Habeat statim olei ricini unciam.

May 8th. Has taken his pills regularly since last report; mouth not yet affected; stools frequent and green coloured; complains of no pain. Pulse 78, heat natural, tongue clean.

Continuentur pilulae.

Habeat quam primum olei ricini drachmas sex.

— 13th. Complains to-day of acute pain in the right iliac region; stools very frequent, and accompanied with a small quantity of blood; no tenesmus; mouth not affected, although he has taken mercurial pills regularly since last report. Pulse 80, heat natural, tongue clean.

Continuentur pilulae.

Imponatur vesicatorium parte dolore affectae.

Injiciatur statim decocti oryzae libram, cum opii granis quinque.

— 14th. Blister has risen well; pain completely removed; stools very frequent, and white coloured; no griping or tenesmus. Pulse 78, tongue clean.

Recipe.—Opii grana duo.

Infusi ipecacuanhae unciam.

Sit haustus hora somni sumendus.

Continuentur pilulae.

— 18th. Continues free from any pain of bowels, but passed a large quantity of clotted blood with his stools yesterday; no tenesmus. Pulse 78, heat natural, tongue clean.

Continuentur pilulae.

Repetatur haustus mane et vespere,

May 21st. Complains of occasional griping, but has no fixed pain in any part of his body; stools frequent, white coloured, and occasionally mixed with blood; no tenesmus. Pulse 80, tongue clean.

Intermittatur haustus.

Recipe.—*Decocti angusturae unciam,*

Opii grana duo.

Sit haustus ter die sumendus.

Continuentur pilulae.

— 23d. Stools still very frequent and white coloured; has passed no blood these two days; is frequently attacked with griping, particularly during the night; no tenesmus. Pulse 78, skin hot, tongue clean.

Continuentur haustus et pilulae.

— 26th. Has still very frequent white coloured stools, passed without straining, and accompanied with no blood; complains of no pain, but feels extremely weak and languid. Pulse 78, tongue clean.

Continuentur medicamenta.

— 29th. Has generally about six white coloured stools in the 24 hours, passed without straining, and accompanied with no blood; complains of no pain in any part of his body. Pulse 78, tongue clean.

Intermittantur medicamenta.

Recipe.—*Calomelanos granum,*

Opii grana duo.

Forma in pilulas duas nocte maneque sumendas.

June 1st. Continues free from any fixed pain, but complains of occasional griping; feels extremely weak and languid; has still very frequent stools of a white colour. Pulse 80, heat natural, tongue clean.

Continuentur pilulae.

June 4th. Complains to-day of slight headach, but continues free from any pain of bowels; stools less frequent, and of a more natural appearance. Pulse 76, appetite somewhat improved.

Continuentur pilulæ.

— 7th. Stools have again assumed a white colour, and he passed a small quantity of blood with them yesterday; complains of occasional griping in the lower part of his belly, but has no fixed pain or tenesmus. Pulse 74, heat natural, tongue clean.

Continuentur pilulæ.

— 10th. Complains of no pain in any part of his body, but has still very frequent white coloured stools; has passed no blood for two days past; experienced no obvyious effect from the pills. Pulse 76, tongue clean.

Continuentur pilulæ.

— 13th. Complains of great lassitude and debility; continues free from any pain; stools still frequent and white coloured; passed a considerable quantity of blood with them yesterday. Pulse 76, tongue clean, heat natural, appetite pretty good, thirst urgent.

Continuentur pilulæ.

— 17th. Complains to-day of pain in the hypogastrium, which is increased upon pressure; passed some blood yesterday with his stools, which are still white coloured; no tenesmus. Pulse 60, heat natural, tongue clean.

Continuentur pilulæ.

Recipe.—*Decocti oryzae libram,*

Olei ricini unciam.

Sit enema quam primum injiciendum.

June 19th. Had three copious white coloured stools after the injection, from which he experienced much relief; complains to-day of pain in the right iliac region, which is increased upon pressure; has passed no blood since last visit. Pulse 64, skin hot, tongue clean.

Continuentur pilulæ.

Vespere imponatur vesicatorium parti dolenti.

— 20th. Blister has not risen well; pain continues; has had five white coloured stools since last visit; no tenesmus. Pulse 68, skin hot, tongue white.

Diutius continuetur vesicatorium per aliquas horas.

Intermittantur pilulæ.

Habeat statim olei ricini unciam.

— 21st. Blister has risen well; pain in the right iliac region quite removed; had several copious white coloured stools after the castor oil; complains of no pain, but is extremely weak and languid. Pulse 64, heat natural, appetite pretty good, thirst urgent.

Repetantur pilulæ ut antea.

— 24th. Complains again to-day of pain in the right iliac region; stools very frequent and white coloured, but without any appearance of blood; no tenesmus. Pulse 68, heat natural, tongue clean, appetite good, thirst urgent.

Continuentur pilulæ.

Recipe.—Opii grana quinque,

Decocti oryzæ libram.

Sit enema mane et vespere injiciendum.

— 26th. Experienced much relief from the injections, and is now free from any pain whatever; complains of nothing but lassitude and debility; stools very frequent and

white coloured; no appearance of blood; no tenesmus. Pulse 68, skin rather hot, tongue clean, thirst urgent.

Omittantur enema et pilulæ.

Habeat hora somni opii grana duo.

Recipe.—Acidi nitrosi guttas viginti.

Decocti oryzæ libram, misce.

Sit mistura partitis vicibus in dies sumenda.

June 28th. Complains of slight griping from the acid, but it has not yet produced any other obvious effect; stools still very frequent and white coloured; continues free from any pain. Pulse 68, skin rather hot, tongue clean.

Continuetur opium.

Continuetur etiam mistura acida cum guttis triginta acidi nitrosi.

— 30th. Still complains of griping from the acid; stools less frequent, but still white coloured; continues free from any fixed pain. Pulse 70, skin rather hot, tongue clean, appetite pretty good, thirst diminished.

Continuentur medicamenta.

July 2d. Complains to-day of slight pain in the umbilical region; stools more frequent, and still white coloured; no tenesmus. Pulse 68, heat natural, tongue clean, appetite good, thirst much diminished.

Continuentur medicamenta.

— 5th. Is still affected with languor, debility, and emaciation, but complains of no particular pain in any part of his body; is occasionally affected with griping after taking the nitrous acid; stools have, within these few days, assumed a more natural appearance, and are become less frequent.

Pulse about 68, heat natural, appetite pretty good, thirst much diminished.

Dismissed.—Convalescent.

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Wallajahbad, August 5, 1808.

GARRETT FARROL, Æt. 34.

Complains of severe and fixed pain in the hypogastric region, under which he has laboured for two days past; has been very frequently at stool during the night, but has passed nothing except a yellow coloured mucus with much straining. Pulse 78, heat natural, tongue clean; has used no medicine.

Habeat statim olei ricini unciam et semisse.

Vespere imponatur vesicatorium parti quæ dolet.

— 6th. Blister was applied last night, it has risen well, and given him much relief; had three stools of a pretty natural appearance after the castor oil, but has since been much distressed with tenesmus. Pulse 78, tongue clean.

Injiciatur enema anodynum, cum opii granis quinque ter in dies.

— 7th. Experienced much relief from the injections yesterday; has had frequent calls to stool this morning, but has passed nothing of any consequence. Pulse natural, tongue clean.

Continuentur enemata ut heri.

— 8th. Had no stools after he got the first injection till 12 o'clock at night, since which he has had several white

frothy stools ; complains of no pain, but feels extremely weak and languid. Pulse 78, tongue clean.

Continuentur enemata.

Habeat hora somni pulveris ipecacuanhæ et opii grana duodecim.

Aug. 9th. Has had about twelve yellow coloured mucous stools since last visit ; continues free from any pain of bowels ; complains of a slight degree of vertigo, particularly on attempting to walk. Pulse 78, heat natural, tongue white.

Habeat statim olei ricini unciam.

Enemate omissa, repetatur pulvis.

— 10th. Had several yellow coloured, frothy stools, after the castor oil yesterday ; has been much distressed during the night with severe griping and tenesmus ; complains much to-day of pain in the umbilical region. Pulse 80, heat natural, tongue white, appetite very bad, thirst moderate.

Recipe.—Pulveris antimonialis grana tria, opii grana duo.

Fiant pilulæ duæ ter die sumendæ.

Repetatur enema et injiciatur tertia quaque hora.

— 11th. Was attacked this morning with vomiting of green coloured bile ; sweated profusely after his medicine yesterday ; pain in the umbilical region much relieved ; stools very frequent since last visit, and accompanied with blood. Pulse 80, skin moist, tongue white.

Continuentur medicamenta ut heri.

— 12th. Has been repeatedly attacked since last visit with vomiting of green bilious matter ; complains much of pain all over the surface of the abdomen ; has been almost constantly at stool since last visit, and has passed a large quantity of blood ; is much distressed with tenesmus. Pulse 90, and small, heat natural, tongue clean.

Utatur statim balneo tepido et iterum vespere.

Recipe.—Pulveris antimonialis,

Opii, utriusque, grana tria.

Forma in pilulas ter die sumendas.

Continuetur enema anodynum.

Habeat vini libram in dies.

Aug. 13th. Experienced very little relief from the warm bath yesterday; sweated profusely after his medicines; has been again attacked with vomiting of green coloured bile; still complains of much pain all over the surface of the abdomen, but can point out no part particularly affected; has had no sleep during the night, but has been almost constantly on the stool, and has passed a large quantity of blood and mucus; tenesmus continues unabated; complains much of oppression above the epigastrium, with slight dyspnœa. Pulse 95, heat natural, tongue clean.

Imponatur vesicatorium scrobiculo cordis.

Continuentur balneum et alia medicamenta ut heri præscripta.

— 14th. Was much distressed yesterday with hiccup and vomiting previous to the application of the blister; slept none during the night; has been again attacked this morning with vomiting of green bilious matter; oppression about the epigastrium and dyspnœa very little relieved; stools almost innumerable, and consisting principally of blood and mucus; still complains much of pain over all the surface of the abdomen, but points to no particular part; urine passed with much difficulty; tenesmus nothing diminished. Pulse about 80, and very small, skin moist, tongue clean.

Recipe.—Tincturae opii drachmas duas,

Spiritus ætheris nitrosi drachmam,

Aquae drachmas sex, misce.

Sit haustus ter die sumendus,

Continuentur balneum et enema anodynum.

Aug. 15th. Died at six in the morning. On examining the abdomen, a few hours after death, the omentum was found adhering in several places to the surface of the bowels, particularly to the caput cæcum, which was found much inflamed and mortified; one mortified spot was observed in the hepatic flexure, and several in the sigmoid flexure of the colon. On slitting open this portion of the intestine, a considerable quantity of bloody mucus, similar to what he had passed during life, was effused; the rectum was much inflamed, and thickened in its coats. The liver, spleen, stomach, and small intestines appeared sound; the bile contained in the gall-bladder was very thick and dark coloured; a small quantity of serum (mixed with pus) was found in the cavity of the pelvis.

Wallajahbad, August 7, 1808.

THOMAS BEATTIE, Æt. 20.

Complains of fixed pain in the lower part of the abdomen, to which he has been subject for three days past; has frequent loose stools, accompanied with mucus, and passed with much straining. Pulse natural, tongue clean, appetite bad, thirst urgent.

Injiciatur enema anodynum ter indies.

Capiat hora somni pulveris ipecacuanhæ et opii grana duodecim.

Vespere imponatur vesicatorium, dolore urgente.

— 8th. Blister was applied last night, and has removed the pain; experienced much relief from the injection; sweated copiously during the night; stools less frequent, but still

accompanied with mucus; tenesmus diminished. Pulse natural, skin cool, tongue clean.

Continuentur enemata et pulvis ut heri.

Aug. 9th. Has had about eight stools since last visit, of a pretty natural appearance; continues free from any pain of bowels; tenesmus almost gone. Pulse natural, tongue clean.

Continuentur enemata et pulvis.

— 10th. Has had three stools of a natural appearance since last visit; says he is now fit for duty if the blister were healed.

Dismissed.

Wallajahbad, Sept. 7, 1808.

ALEXANDER DODD, Æt. 31.

Complains of severe and fixed pain across the lower part of the umbilical region, to which he has been subject upwards of a week past; has frequent loose stools, accompanied with bloody mucus, and passed with much straining. Pulse 80, heat natural, tongue clean. Had a dose of castor oil on the 5th instant, and an anodyne injection last night, from which he experienced much relief.

Habeat pulveris ipecacuanhæ et opii grana decem ter in dies.

Injiciatur enema anodynum ter die, et

Vespere imponatur vesicatorium, dolore urgente.

— 8th. Sweated copiously after the Dover's powder; experiences much relief from the injections; blister was applied

last night, pain of bowels almost gone; stools less frequent, and accompanied with less blood. Pulse 80, heat natural, tongue clean.

Continuentur enema et pulvis ut heri.

Sept. 9th. Pain of bowels almost gone; stools less frequent, and without any appearance of blood. Pulse 80, tongue clean.

Continuentur medicamenta.

— 10th. Has had at least twelve stools since last visit, accompanied with a good deal of mucus, but no blood; complains very little of any pain of bowels. Pulse 78, heat natural, tongue clean.

Intermittatur pulvis.

Recipe.—Opii grana tria,

Infusi ipecacuanhæ uncias duas.

Sit haustus mane et vespere sumendus.

Continuetur enema anodynum.

— 11th. No pain of bowels; stools less frequent, and without any blood. Pulse 78, tongue clean.

Continuentur medicamenta ut heri.

— 13th. Continues free from any pain of bowels; stools frequent, but of a pretty natural appearance. Pulse natural, tongue clean.

Continuetur haustus.

Intermittatur enema.

— 14th. Dismissed—Convalescent.

Wallajahbad, Sept. 7, 1808.

ANDREW MORISON, Æt. 23.

Complains of pain and tension about the hypogastric region, and has frequent loose, watery stools, accompanied with

blood and mucus ; is also much distressed with tenesmus when at stool ; urine passed with difficulty and high coloured. Pulse 80, heat natural, tongue white. Complaints of six days standing ; had a dose of castor oil when first taken ill ; and had an anodyne injection, with a dose of Dover's powder, on his admission last night.

Habeat statim olei ricini unciam.

Capiat hora somni opii grana duo,

Vespere utatur balneo tepido ;

Et injiciatur enema anodynum.

Sept. 8th. Had a great many stools after the castor oil yesterday, accompanied with a great deal of blood and mucus ; experiences considerable relief from the warm bath ; pain about the hypogastrium continues ; urine passed with much difficulty, and in small quantity ; tenesmus still severe. Pulse 84, skin moist, tongue clean, appetite bad, thirst urgent.

Recipe.—Tincturæ opii drachmam,

Spiritus ætheris nitrosi drachmas duas,

Aquæ drachmas sex ; misce.

Sit haustus mane et vespere sumendus.

Injiciatur enema anodynum ter indies.

Repetatur balneum.

— 9th. Still complains much of pain about the hypogastrium, where a slight degree of fulness and tension is perceptible externally ; passes scarcely any urine except on going into the warm bath ; has been much distressed these two days past with frequent hiccup, and has vomited his food several times ; stools very frequent, and accompanied with bloody mucus ; tenesmus much diminished. Pulse 84, skin moist, tongue clean.

Continuetur haustus.

Continuentur etiam balneum, et enema anodynum.

Sept. 10th. Has had no hiccup since last visit, but vomited his supper last night, accompanied by some bitter tasted fluid; still passes his urine with difficulty; complains to-day of pain about the umbilical region; stools very frequent, but accompanied with less blood; tenesmus diminished. Pulse 78, heat natural, tongue white.

Continuentur omnia.

— 11th. Complains to-day of acute and fixed pain in the abdomen, a little below the umbilicus; this has been particularly severe during the night, accompanied with very frequent calls to stool, when he passed nothing but large quantities of flatus; urine passed freely, but very high coloured; no hiccup or vomiting since last visit. Pulse 76, skin moist, tongue white.

Habeat statim olei ricini drachmas sex.

Capiat hora somni opii grana tria.

Vespere imponatur vesicatorium parti dolenti.

Intermittantur alia medicamenta.

— 12th. Blister applied last night; pain of bowels relieved; several scanty white coloured stools after the castor oil; urine passed with more difficulty. Pulse 76, skin moist, tongue clean.

Capiat mane et vespere pulveris. Ipecacuanhæ et opii grana decem.

Habeat balneum tepidum vespere.

— 13th. Continues free from any pain of bowels; stools frequent, and passed with a good deal of straining; urine passed with difficulty. Pulse 76, heat natural.

Continuentur medicamenta ut heri præscripta.

Injiciatur enema anodynum ter indies.

Sept. 14th. No pain of bowels; stools less frequent, but accompanied with some blood; urine passed freely. Pulse 74, heat natural, tongue clean.

Intermittatur balneum tepidum.

Continuentur alia.

— 15th. Continues free from any pain; stools frequent, but of a natural appearance. Pulse 76, heat natural, tongue clean.

Dismissed.

Wallajahbad, November 17, 1808.

GORDON DRUMMOND, Æt. 24.

Complains of severe pain in the hypogastrium, accompanied with frequent, bloody, mucous stools, and constant tenesmus. Pulse 88, skin hot, tongue white. Complaints of eight days standing; has used purgative and diaphoretic medicines.

Injiciatur statim enema anodynum, et repetatur omni trihorio.

§ *Utatur balneo tepido mane et vespere; et capiat hora somni opii grana duo.*

— 18th. Pain of bowels somewhat relieved; stools very frequent, and accompanied with blood; tenesmus diminished. Pulse 86, skin hot, tongue clean.

Recipe.—Pulveris antimonialis grana tria

Opii grana duo.

Fiant pilulæ ter indies sumendæ.

Continuentur enema et balneum tepidum.

— 19th. Sweated copiously after his medicine yesterday; pain of bowels quite gone; stools still very frequent, but

accompanied with very little blood; tenesmus abated. Pulse 86, skin moist, tongue clean.

Intermittatur balneum tepidum.

Continuentur enema et pilulæ.

Habeat indies vini libram dimidiam.

Nov. 20th. Continues free from any pain of bowels; stools less frequent, and accompanied with very little blood; no tenesmus. Pulse 86, heat natural, appetite very bad, thirst urgent.

Continuentur medicamenta ut heri.

— 21st. Died in the course of the night. The body was opened this morning. The small intestines were found slightly inflamed throughout; great intestines much thickened in their coats, and covered with livid spots; the cæcum completely mortified; the liver white and indurated.

Madras, March 14, 1809.

JAMES LUCAS, Æt. 17.

Complains of fixed pain in the lower part of his belly, accompanied with severe and almost constant tenesmus; passes scarcely any thing on going to stool, except a quantity of bloody mucus. Pulse 80, heat natural, tongue clean, appetite bad, thirst urgent. Complaints of four days standing; has used some purgative medicines.

Habeat pulveris ipecacuanhæ et opii grana decem mane et vespere.

Injiciatur enema anodynum ter de die.

Imponatur vesicatorium vespere, urgente dolore abdominis.

March 15th. Blister applied last night ; pain of bowels almost gone ; experienced much relief from the injections ; stools still frequent and bloody ; tenesmus diminished. Pulse 84, skin rather hot, tongue clean.

Repetantur pulvis ipecacuanhæ et opii, et enema anodynum.

— 17th. Is at present free from any pain of bowels ; stools very frequent, but accompanied with little or no blood ; tenesmus almost gone. Pulse 80, tongue clean.

Continuentur medicamenta.

— 19th. Complains again to-day of slight pain across the lower part of his belly ; stools less frequent, and without any blood ; tenesmus almost gone. Pulse 80, heat natural, tongue clean, appetite improved.

Utatur balneo tepido mane et vespere.

Continuentur pulvis et enema anodynum.

— 20th. Sweated profusely after the warm bath ; pain of bowels relieved ; one stool since last visit, of a natural appearance.

Habeat hora somni pulveris ipecacuanhæ et opii grana duodecim.

Intermittantur alia.

— 23d. Is now free from any pain of bowels ; stools of a natural appearance.

Dismissed.

Madras, March 27, 1809.

JOHN CAVLACHAN, Æt. 18.

Complains of severe pain about the umbilical region, which is much increased on going to stool, or on making any sudden change of posture; stools very frequent, accompanied with much blood, and passed with straining. Pulse 100, and rather full, tongue white, skin covered with perspiration, appetite bad, thirst urgent. Complaints of six days standing; has used purgative and diaphoretic medicines.

*Capiat quam primum sulphatis sodæ unciam et semisse.
Imponatur vesicatorium hora somni, dolore abdominis urgente.*

— 28th. Had several copious stools after the salts; blister has risen well; pain of bowels relieved; tenesmus continues. Pulse 96, skin covered with profuse perspiration.

*Recipe.—Pulveris antimonialis grana tria,
Opii grana duo, misce.*

Fiant pilulæ ter die sumendæ.

Injiciatur enema anodynum mane et vespere.

— 29th. Pain of bowels almost gone; stools still very frequent, but accompanied with less blood; tenesmus continues. Pulse 96, skin moist, tongue white, thirst urgent.

Repetantur medicamenta ut heri.

— 31st. Is now free from any fixed pain of bowels, but is occasionally attacked with severe griping; tenesmus continues unabated; stools still very frequent, but without much blood. Pulse 96, skin moist, tongue white, appetite bad, thirst urgent.

Habeat statim olei ricini unciam.

Repetatur enema anodynum hora somni, et tunc etiam sumat pulveris ipecacuanhæ et opii grana duodecim.

April 1st. Had several stools of a more natural appearance after the castor oil; continues free from any fixed pain of bowels; tenesmus diminished. Pulse 88, heat natural, tongue white.

Continuentur pilulæ ex pulvere antimoniali et opio, ut antea præscriptæ.

Continuetur etiam enema anodynum, mane et vespere.

— 3d. Continues free from any fixed pain; stools very frequent, but of a pretty natural appearance; tenesmus continues. Pulse 88, skin moist, tongue white.

Continuentur medicamenta.

— 5th. Stools still very frequent, of a yellow frothy appearance; is occasionally attacked with griping, but continues free from any fixed pain; tenesmus almost gone. Pulse 90, skin almost constantly covered with profuse perspiration, tongue white, appetite bad, thirst urgent.

Intermittantur pilulæ.

Recipe.—Aquæ coryzæ libram et semisse.

Acidi sulphurici guttas viginti; misce.

Capiat partitis vicibus indies.

Hora somni habeat opii grana tria; et tunc etiam injiciatur enema anodynum.

— 8th. Continues free from any pain of bowels; complains to-day of slight pain in his right side; stools still very frequent; perspiration much diminished. Pulse 84, heat natural, appetite improved.

Continuentur medicamenta.

April 12th. Is occasionally attacked with griping after taking his medicine ; continues free from any fixed pain ; has generally five or six stools in the day, of a deep yellow colour. Pulse 80, heat natural, tongue clean, appetite improved.

Habeat tincturæ rhei drachmas duas, ter indies.

Intermittatur mistura acida.

— 16th. Stools less frequent, and of a pretty natural appearance ; complains much of lassitude and debility, particularly about his limbs. Pulse 80, heat natural.

Continuetur tinctura rhei.

Habeat vini libram dimidiam indies.

— 20th. Complains of wandering pain through his limbs with great prostration of strength ; stools still frequent, but of a pretty natural appearance. Pulse 86, heat natural, tongue foul.

Capiat bis die decocti angusturæ unciam.

Continuetur vinum.

— 25th. Still complains of a good deal of weakness in his limbs. Pulse 80, appetite good, bowels regular.

Dismissed—Convalescent.

Madras, July 8, 1809.

WILLIAM HAMILTON, Æt. 20.

Complains of fixed pain across the lower part of the umbilical region ; has frequent loose stools, accompanied with blood and mucus, and is also distressed with tenesmus. Pulse 90,

heat natural, tongue white, appetite bad. Complaints of four days standing ; has used no medicines.

Habeat quam primum olei ricini unciam et semisse ; et hora somni opii grana duo.

Vespere injiciatur enema anodynum, et eodem tempore, imponatur vesicatorium abdomini, dolore urgente.

July 9th. Had several copious stools after the castor oil, without any appearance of blood ; blister applied last night ; pain of bowels relieved ; tenesmus diminished. Pulse 88, heat natural, tongue white.

Habeat pulveris ipecacuanhæ et opii grana septem ter indies.

Injiciatur enema anodynum mane et vespere.

— 10th. Five stools since last visit ; pain of bowels gone ; tenesmus diminished. Pulse 86, heat natural, tongue white.

Continuentur medicamenta.

— 11th. Continues free from any pain ; has had five or six stools since last visit, passed with a good deal of straining. Pulse 80, skin cool, tongue white.

Habeat statim olei ricini drachmas sex.

Repetatur enema anodynum hora somni.

— 12th. Five stools of a natural appearance after the castor oil ; continues free from pain. Pulse natural, skin cool, appetite good.

Dismissed.

Hydrabad, December 6, 1809.

WILLIAM DUTHIE, Æt. 28.

Complains of pain about the scrobiculus cordis, which is increased on a full inspiration; for eight or ten days past he has been much troubled with frequent mucous stools, and almost constant tenesmus; passes also some blood occasionally by stool. Pulse natural, skin rather hot, tongue white, appetite indifferent.

Habeat statim olei ricini unciam.

Recipe.—Pulveris antimonialis grana tria.

Opii grana duo.

Fiant pilulæ hora somni sumendæ.

Vespere imponatur vesicatorium si dolor perstaret.

— 7th. Had several copious stools after the castor oil; blister risen well; pain almost gone; tenesmus diminished. Pulse natural, skin hot, tongue clean, appetite improved.

Repetantur pilulæ mane et vespere.

— 8th. Pain and tenesmus almost completely gone; seven stools since last visit, some of them quite of a natural appearance. Pulse and heat natural, tongue clean.

Continuentur pilulæ.

— 10th. Has been a little griped during the night, and a good deal troubled with flatus; stools still accompanied with mucus. Pulse natural, skin hot, tongue white.

Quam primum capiat olei ricini drachmas sex.

Continuentur pilulæ, hora somni.

Dec. 11th. Had several stools after the castor oil yesterday, accompanied with a little blood; slept well during the night, and feels to-day much easier. Pulse and heat natural, tongue clean.

Continuentur pilulæ bis die ut antea.

— 13th. Stools still frequent, and accompanied with mucus; is at present free from pain or tenesmus. Pulse natural, skin rather hot, tongue clean.

Recipe.—Calomelanos.

Opii, utriusque, grana duo.

Fiant pilulæ bis die sumendæ.

— 15th. Still passes a small quantity of mucus with his stools. Pulse and heat natural, tongue clean.

Dismissed—Convalescent.

Hydrabad, December 13, 1809.

CORPORAL DAVIS, 22d Dragoons, Æt. 22.

Complains of fixed pain in the lower part of his belly, accompanied with frequent bloody stools, and almost constant tenesmus. Pulse 84, skin rather hot, tongue white, appetite indifferent, thirst urgent. Complaints of eight days standing; has used several purgative medicines.

Habeat quam primum balneum tepidum.

Recipe.—Pulveris antimonialis grana tria.

Opii grana duo.

Fiant pilulæ quarta quaque hora sumendæ.

Injiciatur enema anodynum quarta quaque hora.

Vespere imponatur vesicatorium si dolor perstaret.

Dec. 14th. Experienced great relief from the warm bath and injections; blister was not applied; pain still continues fixed, though less severe; tenesmus very distressing; stools still accompanied with much blood. Pulse 90.

Statim imponatur vesicatorium.

Continuentur pilulae et enemata.

— 15th. Blister has risen well, but given him no relief from the pain; stools very frequent, and accompanied with much blood; tenesmus continues unabated. Pulse 90, skin hot, tongue white.

Habeat statim olei ricini drachmas sex.

Vespere utatur balneo tepido, et

Hora somni capiat pulveris ipecacuanhae et opii grana duodecim.

— 16th. Several stools after the castor oil yesterday, without much blood; pain of bowels much relieved; tenesmus diminished. Pulse 90, heat natural, tongue white.

Habeat pulveris ipecacuanhae et opii grana septem ter die.

Enema anodynum bis die; et balneum tepidum, vespere.

— 17th. Has been extremely restless and uneasy during the night; pain of bowels diminished; stools accompanied with much blood, and passed with much straining. Pulse 90, skin hot, tongue clean.

Continuentur medicamenta ut heri;

Opii granis tribus, hora somni, adjectis.

— 18th. Slept little or none during the night; pain in the lower part of his belly still severe; tenesmus relieved by the injections; stools still frequent, and consisting chiefly of blood and mucus; urine passed with difficulty. Pulse 100, skin moist, tongue clean, appetite quite gone, thirst urgent.

Continuentur medicamenta ut antea præscripta.

Habeat hora somni, opii grana quatuor.

Habeat etiam vini libram dimidiam indies.

Dec. 19th. Has slept better last night than for some time past; is at present free from any fixed pain of bowels: stools frequent and very dark coloured, but not accompanied with so much blood. Pulse 100, and small, tongue clean

Continuentur medicamenta ut heri.

Habeat vini libram indies.

— 20th. Has passed a very restless night, and has vomited a good deal of green bilious stuff; stools very frequent and dark coloured; complains again to-day of fixed pain in the belly, a little below the navel. Pulse 100, and small, skin cold and moist, tongue clean.

Continuentur pulvis ipecacuanhæ et opii, opium, et enemata.

Omittatur balneum tepidum et foveatur abdomen pannis laneis ex aqua calida expressis.

Infricatur unguenti hydrargyri cruribus nocte et mane.

Was seized about nine P. M. with violent retching and vomiting of blood, and expired in a few minutes.

The body was examined next morning, the lower part of the abdomen contained a considerable quantity of dark coloured serum: the stomach appeared perfectly sound, but contained a small quantity of very thick dark coloured bile; the small intestines exhibited the natural healthy appearance; the large intestines were thickened throughout, and the lower part of the colon mortified; the liver was uncommonly pale in its colour, but of the usual size and structure; the gall-bladder almost empty. On examining the chest, a quantity of dark coloured serum was found in both cavities of the thorax, and a large quantity in the pericardium: the lungs ap-

stomach ; pain about the umbilicus relieved ; has had four or five greenish coloured stools since last visit ; is much distressed with tenesmus. Pulse 90, skin moist, tongue white.

Recipe.—*Calomelanos grana sex.*

Pulveris rhei scrupulum.

Sit pulvis statim sumendus.

Repetatur enema anodynum nocte maneque.

May 8th. Vomited soon after taking his medicine yesterday ; complains this morning of fixed pain in the lower part of his belly ; has had several dark coloured stools since last visit, accompanied with some blood ; nausea and oppression about the stomach continue. Pulse 90, heat natural, tongue foul, appetite bad, thirst urgent.

Habeat statim olei ricini drachmas sex.

Infricatur cruribus unguenti hydrargyri drachmam dimidiam bis die.

Continuentur enemata.

Vespere imponatur vesicatorium, dolore perstante.

— 9th. Had several scanty green coloured stools after the castor oil yesterday ; blister was not applied ; pain of bowels much relieved. Pulse 90, heat natural, tongue white.

Continuentur unguentum hydrargyri et enemata.

Recipe.—*Calomelanos.*

Opii, utriusque, grana duo.

Fiant pilulæ ter die sumendæ.

— 10th. Complains much this morning of pain and oppression about the lower part of his chest, with much difficulty in breathing, and constant nausea ; had a severe attack of hepatitis about twelve months ago ; but, on examining the region of the liver, no enlargement is perceptible. Pulse 86, skin moist, stools frequent and green coloured.

Continuentur medicamenta.

Vespere, imponatur vesicatorium parti quæ dolet.

May 11th. A small blister was applied last night to the region of the liver, but has not yet risen freely; pain and oppression about the lower part of the thorax somewhat relieved; nausea continues; stools less frequent. Pulse 86, skin moist.

Continuentur medicamenta.

Imponatur parti vesicatæ unguentum cantharidis vesicatoriæ.

— 14th. Blister discharges freely; mouth begins to be affected by the mercury; oppression about the region of the liver, and dyspnœa continue. Pulse 84, skin moist, tongue white, bowels regular.

Continuentur unguentum hydrargyri et enemata.

Recipe.—Calomelanos grana quinque.

Pulveris rhei scrupulum, misce.

Capiat statim.

— 15th. Had several copious green coloured stools after his medicine; symptoms continue as formerly. Pulse 80, skin moist.

Continuentur unguentum et enemata.

Repetantur pilulæ ex calomelane et opio.

— 19th. Issue discharges freely, but he still complains much of pain about the region of the liver and dyspnœa; mouth not affected by the mercury. Pulse 88, heat natural, tongue white and furred.

Continuetur unguentum.

Recipe.—Calomelanos grana quinque.

Pulveris rhei scrupulum, misce.

Capiat statim.

May 20th. Had six dark coloured stools after his medicine yesterday ; symptoms as formerly.

Continuentur medicamenta ut heri.

— 21st. Several dark coloured stools since last visit ; pain about the region of the liver and dyspnœa continue. Pulse 80, heat natural, mouth slightly affected.

Continuetur unguentum.

Habeat statim infusi sennæ uncias quatuor.

— 22d. *Continuentur medicamenta.*

— 23d. Stools green coloured ; complains more of oppression than pain about the region of the liver. Pulse 84, tongue white.

Continuentur medicamenta.

— 27th. Has continued the infus. sennæ daily since last report ; issue now healed up ; pain continues about the region of the liver, and extending all along his right side, accompanied with dyspnœa, cough, and expectoration of viscid phlegm. Pulse 78, skin rather hot, tongue white, mouth slightly affected, stools more natural.

Continuentur unguentum et infusum sennæ.

— 30th. Mouth a good deal affected by the mercury ; stools still of a dark greenish colour ; pain of his side and dyspnœa continue. Pulse 80, heat natural.

Continuetur infusum sennæ.

Habeat unguentum hydrargyri semel in die tantum.

June 2d. Mouth continues sore from the mercury ; pain and oppression about his right side continue ; cough less fre-

quent; expectoration diminished; stools still dark coloured.
Pulse 80, skin moist.

Continuetur unguentum.

Capiat pulveris rhei grana decem ter die.

June 8th. Mouth continues sore; says the pain and oppression about his side are nothing relieved. Pulse natural, skin cool, stools of a more natural appearance.

Continuentur medicamenta.

— 13th. Mouth slightly affected; still complains of slight pain and oppression about his side on making any exertion; stools pretty natural in appearance. Appetite good.

Dismissed—Convalescent.

Masulipatam, May 11, 1810.

JAMES FORAN, Æt. 24.

Admitted yesterday, complaining of fixed pain in the lower part of the abdomen, and passing frequent loose watery stools, accompanied with blood and mucus; was much distressed also with tenesmus. He had a dose of castor oil on his admission, which produced stools of a pretty natural appearance; had also a blister applied to his belly last night, which has given him considerable relief. Pulse 94, skin hot, tongue foul.

Habeat statim infusi sennæ uncias quatuor.

Injiciatur bis die enema anodynum.

Vespere utatur balneo tepido.

May 12th. Had several copious stools yesterday, accompanied with very little blood; pain of bowels relieved; tenesmus diminished. Pulse 90, heat natural, tongue clean.

Continuentur enemata.

Recipe.—*Pulveris antimonialis grana tria.*

Opii grana duo.

Fiant pilulæ, ter die sumendæ.

— 13th. Complains more of pain in his bowels this morning; stools have been very frequent since last visit, and accompanied with a good deal of mucus, but little or no blood; tenesmus continues very distressing. Pulse 96, heat natural.

Continuentur medicamenta.

— 14th. Pain of bowels easier; stools have been very frequent during the night; tenesmus continues unabated. Pulse 90, skin hot, tongue white.

Continuentur enemata.

Habeat statim olei ricini unciam

Habeat, hora somni, opii grana duo; et vini libram dimidiam indies.

— 15th. Several stools of a pretty natural appearance after the castor oil; pain of bowels almost gone; tenesmus diminished; vomited a quantity of green bilious matter yesterday afternoon. Pulse 90, heat natural, tongue furred.

Continuentur enemata et opium.

Recipe.—*Calomelanos grana quinque,*

Pulveris rhei scrupulum; misce.

Capiat statim.

— 16th. Has been distressed during the night with pain in his right side about the region of the liver, and extending up towards his left shoulder; pain increased on a full

inspiration, and he lies easiest on the side affected; stools frequent during the night. Pulse 96, skin hot, tongue furred.

Habeat statim infusi sennæ uncias quatuor.

Imponatur vesicatorium regioni hepatis.

Capiat hora somni opii grana duo.

May 17th. Had several copious stools after his medicine yesterday; pain of side relieved by the blister, and he breathes more freely; complains of a very bad taste in his mouth, and is frequently troubled with nausea. Pulse 96, heat natural, tongue clean, but dry, complexion sallow.

Ope unguenti irritantis forma fonticulum in parte vesicata.

Recipe.—Calomelanos;

Opii, utriusque, grana duo.

Sit pilula ter die sumenda.

More solito utatur unguenti hydrargyri drachma dimidia bis die.

— 19th. Issue discharges freely; pain of side continues easier; has been much distressed with griping, and very frequently at stool during the night. Pulse 90, heat natural, tongue white.

Habeat statim olei ricini unciam

Continuentur alia.

— 20th. Several dark coloured stools after the oil; pain of side continues easier; mouth begins to be affected by the mercury. Pulse 90, skin moist.

Continuentur medicamenta.

— 22d. Complains much this morning of nausea and oppression about the region of the stomach; stools frequent; mouth slightly affected. Pulse 98, tongue dry.

Continuentur medicamenta.

Habeat haustus effervescentes tertia quaque hora, vel nausea urgente.

May 23d. Previous to taking his medicines yesterday, he took, at the suggestion of Mr. Annesly, 20 grains of ipecacuan, which brought up a quantity of green bile; nausea and oppression about the stomach relieved; complains of no pain of side, except on making a full inspiration. Pulse 96, skin hot, tongue foul and parched, stools frequent.

Continuentur unguentum et haustus.

Habeat quam primum infusi sennæ uncias tres.

— 24th. Is this morning delirious, and can give no distinct account of his complaints. Pulse 100 and small, skin moist, tongue parched.

Continuentur unguentum et haustus.

Habeat vini libram indies.

— 25th. Died about nine P. M. On opening the body next morning, the stomach and small intestines appeared sound, the large intestines of a livid colour throughout; caput cæcum mortified; two small abscesses were discovered in the right lobe of the liver, close by the ligamentum latum; the gall bladder was almost empty; several of the mesenteric glands enlarged and indurated.

Masulipatam, August 2, 1810.

FRANCIS RAMSAY, Æt. 40.

Admitted last night, complaining of pain in his bowels, extending from the umbilical region down towards the pubes; for some days past he has had frequent loose, dark coloured stools, accompanied with blood, and passed with much straining; took a dose of castor oil yesterday morning, which ope-

rated freely; had a blister applied to the pained part last night, which has given him some relief. Pulse 90, tongue foul.

*Capiat infusi sennæ uncias duas, omni hora ad quartam usque vicem; et
Habeat enema anodynum nocte maneque.*

May 3d. Still complains of pain in the lower part of his belly; several dark coloured stools after the medicine yesterday, accompanied with small quantities of blood; tenesmus much diminished. Pulse 96, skin cool, tongue white and furred, appetite bad, thirst urgent.

*Habeat statim olei ricini uncias duas.
Continuetur enema.*

— 4th. Stools of a more natural appearance; pain of belly relieved; tenesmus continued. Pulse 90, skin cool.

*Continuetur enema.
Habeat statim infusi sennæ uncias quinque.*

— 5th. Complains now of no pain except on going to stool; tenesmus continues unabated; stools of a dark colour, and accompanied with some blood. Pulse 88, skin moist, tongue white.

*Recipe.—Calomelanos grana duo,
Pulveris rhei grana decem.
Fiat pulvis ter die sumendus.
Continuetur enema.
Habeat vini libram dimidiam indies.*

— 6th. Stools of a more natural appearance, and accompanied with less blood; complains of no pain, but is much distressed with tenesmus, and has passed very little urine for the last twenty-four hours. Pulse 86, skin moist.

Recipe.—*Tincturæ opii drachmam dimidiam.*

Tincturæ scillæ drachmam cum semisse,

Aquæ drachmas sex ; misce.

Sit haustus ter die sumendus.

Continuetur enema.

May 7th. Complains of no pain, but is much distressed with tenesmus ; has passed only about half a pint of high coloured urine since last visit ; this is a complaint he has been repeatedly subject to, since he received a kick from a horse in the region of the kidneys many years ago ; stools less frequent, and not accompanied with blood. Pulse 88, skin cool, tongue foul.

Recipe.—*Calomelanos grana duo.*

Pulveris rhei grana duodecim.

Fiat pulvis ter die sumendus.

Repetatur haustus cum tincturæ scillæ drachmis duabus.

Continuetur enema.

— 9th. Continues free from pain ; stools less frequent, and more natural in appearance ; urine passed freely, and in sufficient quantity. Pulse 80, skin moist, tongue foul.

Omittatur haustus.

Continuentur pulvis et enema.

— 10th. *Continuentur medicamenta.*

— 12th. Continues free from pain ; stools natural ; appetite good.

Dismissed.

Sourabaya, Island of Java,
October 16, 1811.

CORNELIUS WILD, Royal Artillery, Æt. 25.

Complains of pain in the lower part of his belly, with frequent loose stools, accompanied with blood and mucus; is also much distressed with tenesmus. Pulse 76, appetite pretty good, thirst moderate. Complaints of five days standing; used no medicine.

Habeat statim sulphatis sodæ uncias duas.

— 17th. Salts produced several copious dark coloured stools, accompanied with a good deal of blood and mucus; pain of bowels and tenesmus relieved. Pulse natural, heat moderate, tongue clean.

Habeat statim infusi sennæ uncias tres.

— 18th. Several watery greenish stools after the infus. sennæ. No fixed pain of bowels. Pulse natural, tongue clean.

*Recipe.—Calomelanos grana tria,
 Opii granum, misce.*

Sit pilula, capiat mane et vespere.

— 19th. *Repetatur pilula.*

— 20th. Complains a good deal of griping from pills; stools more natural in appearance; tenesmus gone. Pulse natural, tongue white.

Habeat statim infusi sennæ uncias tres.

Repetatur pilula.

May 21st. *Continuetur pilula.*

— 22d. Stools continue more natural ; complains of no pain ; mouth begins to be affected by the mercury. Pulse natural, tongue clean.

Continuetur pilula.

— 23d. *Continuetur pilula.*

— 25th. Free from complaint.

Dismissed.

Trichinopoly, April 12, 1812.

JAMES HORSBURGH, Royal Scots, Æt. 48.

Complains of fixed pain in the hypogastrium, and has frequent bloody stools, passed with much straining. Pulse quick, skin moist, tongue foul, appetite bad, thirst urgent. Complaints of five days standing ; has used some purgative medicines.

Habeat statim sulphatis sodæ uncias duas.

Vespere imponatur vesicatorium hypogastrio, dolore urgente.

— 13th. Salts produced several copious stools, accompanied with a good deal of greenish mucus ; blister has risen well ; pain much relieved. Pulse quick, heat natural, tongue foul.

Habeat statim infusi sennæ uncias duas, et

Repetatur omni hora ad tertiam usque vicem.

April 14th. Several greenish mucous stools after his medicine, passed with less straining. Pulse natural, skin cool, tongue foul.

Repetatur infusum sennæ ut heri.

Habeat hora somni haustus anodynus cum tincturæ opii guttis quadraginta.

— 15th. Stools more natural, and passed more freely; complains occasionally of griping. Pulse natural, tongue foul.

Habeat statim pulveris rhei semi-drachmam.

Repetatur haustus anodynus hora somni.

— 16th. Griping much relieved; stools more natural.

Continuentur medicamenta ut heri.

— 17th. Has been much distressed with griping during the night; stools accompanied with a good deal of mucus. Pulse natural, tongue foul.

Habeat statim infusi sennæ uncias duas, omni hora ad tertiam vicem repetendas.

— 18th. Stools of a whitish colour, and passed with much straining. Pulse natural, tongue foul.

Habeat statim pulveris rhei semi-drachmam.

Injiciatur enema anodynum ter indies.

— 19th. *Continuentur medicamenta.*

20th. Stools of a whitish colour, and passed with less straining.

Capiat mane et vespere pilularum hydrargyri duas.

Continuetur enema anodynum.

— 21st. *Continuentur medicamenta,*

April 23d. Stools more natural in appearance. Pulse and heat natural, appetite good.

Continuentur medicamenta.

— 27th. Complains a good deal of griping this morning; stools still white coloured, and accompanied with some mucus; mouth begins to be affected by the mercury.

Habeat statim infusi sennæ uncias quatuor.

Continuentur alia.

— 28th. Stools more natural after the infus. sennæ.

Continuentur pilulæ et enema.

— 30th. Still complains occasionally of griping; stools more natural; mouth slightly affected.

Continuentur medicamenta.

May 2d. Still passes a good deal of mucus with his stools; mouth slightly affected. Pulse natural, tongue clean.

Continuentur medicamenta.

— 4th. Dismissed.

Bangalore, Feb. 3, 1814.

GEORGE FORBES, Royal Scots, *Æt.* 21.

Complains of severe pain in the hypogastrium, with frequent loose stools, occasionally accompanied with blood, and is also distressed with tenesmus. Pulse quick, heat natural, tongue white.

Habeat statim sulphatis sodæ uncias duas.
Vespere applicentur hirudines viginti abdomini, dolore urgente.

Feb. 4th. Several copious evacuations of fluid straw coloured fæces, without any appearance of blood; pain in the hypogastrium almost gone; tenesmus diminished. Pulse and heat natural, skin cool, leeches not applied.

Habeat infusi sennæ uncias duas omni hora ad tertiam vicem.

Injiciatur enema anodynum mane et vespere.

— 5th. Infus. sennæ produced several copious light coloured stools; pain of bowels and tenesmus almost gone. Pulse natural, skin cool.

Habeat statim infusi sennæ uncias quinque, et hora somni haustum anodynum.

— 6th. Stools of a more natural appearance; pain of bowels and tenesmus quite gone.

Dismissed.

Bangalore, March 21, 1814.

WILLIAM M'DONALD, Royal Scots, Æt. 17.

Admitted yesterday complaining of pain in the hypogastrium; frequent loose dark coloured stools and tenesmus; urgent thirst and prostration of strength; had a dose of salts on his admission, which was followed by several copious brown coloured stools, passed without straining; the tenesmus has returned however since the salts ceased to operate, and there is

a good deal of tension over the lower part of the abdomen. Pulse 80, tongue clean, thirst still urgent.

Habeat statim infusi sennæ uncias duas omni hora ad tertiam vicem repetendas.

Feb. 22d. Stools more natural after the infus. sennæ; has been a good deal troubled with griping during the night, but is entirely free from it this morning; tension of the hypogastrium diminished. Pulse quick, heat natural, tongue clean.

Habeat statim infusi sennæ uncias quinque, et hora somni capiat pulveris ipecacuanhæ et opii grana duodecim.

— 23d. Had several stools of a more natural appearance after his medicine yesterday; sweated copiously during the night; complains still of occasional griping. Pulse and heat natural, tongue dry, thirst urgent.

Habeat statim tincturæ rhei unciam.

— 24th. Griping gone; stools now of a natural appearance.

Dismissed.

Bellary, May 9, 1814.

JOSEPH EUSTACE, Royal Scots, Æt. 20.

Has frequent loose watery stools, sometimes of a brownish colour, and at other times almost white; complains occasionally of slight headach, and rejects almost every thing he takes

by vomiting. Stools are passed without straining, and he has no pain in any part of his bowels. Pulse 90, heat natural, tongue foul.

Had a very severe attack of dysentery, with symptoms of affection of the liver about four months ago. Present complaints of six days standing.

Habeat statim infusi sennæ uncias duas, et repetatur omni hora ad tertiam vicem.

May 10th. Vomited the second dose of his purging mixture yesterday. Stools very frequent, brown coloured, and watery. He complains of slight pain upon pressing the right hypochondrium, but there does not appear to be any enlargement of the liver. Pulse 90, of moderate strength, heat natural, tongue clean, appetite bad, thirst urgent.

*Recipe—Mussæ pilularum hydrargyri semi-drachmam,
Opii grana sex; misce, et forma in pilulas octo,
quarum capiat duas mane et vespere.*

— 11th. *Continuentur pilulæ.*

— 12th. Stools more natural in appearance; no vomiting for two days past. Pulse quick, heat natural, thirst diminished.

Continuentur pilulæ.

— 15th. Stools are now perfectly natural in appearance, and he has had no return of vomiting. Pulse and heat natural, appetite good.

Dismissed.

Bellary, May 13, 1814.

ALEXANDER GRANT, Royal Scots, Æt. 38.

Complains of pain in his loins, stretching round towards the pubes, where there is a slight degree of tension; has passed very little urine for three days past, except on going to stool. Had a dose of salts yesterday morning, which was followed by several copious watery stools, accompanied with some blood, apparently from piles, to which he has been subject for some time back. Pulse 90, and full, skin moist, tongue foul, thirst extremely urgent.

Emittantur sanguinis e brachio uncia octodecim.

Habeat statim balneum tepidum.

Capiat secunda quaque hora misturæ salinæ uncias duas, cum spiritus ætheris nitrosi drachma dimidia.

Six P. M. Passed some urine while in the bath, and felt considerably relieved by it; has been distressed the whole day with constant tenesmus, and has voided a quantity of brown coloured fluid fæces, without any blood. Pulse quick, but less full, thirst still urgent.

Repetatur balneum tepidum.

Injiciatur statim enema anodynum; et

Habeat haustum anodynum hora somni.

— 14th. Passed a quantity of urine in the bath last night, and has continued to pass it with his stools ever since;

tenesmus was much relieved by the injection, and he slept pretty well for some hours after the draught; still complains of pain in his loins, and also about the pubes. Pulse 90, skin cool, tongue foul, thirst still urgent.

Habeat statim infusi sennæ uncias duas; et repetatur omni hora ad tertiam vicem.

Six P. M. *Continuentur balneum tepidum haustus et enema ut heri.*

May 15th. Several dark coloured stools, accompanied with blood, after his medicine yesterday; pain of loins somewhat easier, and he makes his urine more freely; complains much this morning of pain in the hypogastric and left iliac region; tenesmus unabated. Pulse 100, tongue more clean, thirst very urgent.

Applicentur hirudines duodecim parti abdominis dolenti; et Injiciatur statim enema purgans.

Habeat infusum fructus tamarindorum pro potu communi.

Six P. M. Leeches bled freely; stools bloody, and passed with much straining; urine scanty, and high coloured.

*Recipe.—Tincturæ opii drachmas duas,
Spiritus ætheris nitrosi drachmam,
Aquæ uncias quinque; misce.*

Sit haustus statim sumendus.

Injiciatur enema anodynum.

— 16th. Slept a few hours after his draught, but has since been troubled with frequent calls to stool and tenesmus; his stools consist almost entirely of a bloody serous fluid. Pain in the hypogastrium relieved. Pulse 96, and unequal in strength, heat natural; tongue brown in the middle, and white

towards the edges, thirst still extremely urgent; and he relishes the infusion of tamarinds very much.

Habeat statim olei ricini unciam.

Injiciatur enema anodynum ter die.

Repetatur haustus anodynus hora somni.

May 17th. Evacuations after the oil still of the same bloody serous fluid, without any appearance of fæces; complains but little of pain this morning; tenesmus continues unabated and attended with prolapsus ani; slept very little during the night, and feels this morning extremely debilitated. Pulse quick, small, and occasionally intermitting; skin covered with a cold sweat; tongue of the same appearance as yesterday; thirst still excessive.

Recipe.—Pulveris corticis cinchonæ scrupulum,

Tincturæ opii guttas quindecim,

Aquæ unciam, misce.

Sit haustus secunda quaque hora sumendus.

Habeat indies vini albi libram.

Six P. M. Has taken six doses of the bark without any obvious effect; his pulse continues to sink, and the anxiety and alarm which has been manifest throughout the progress of his disease is now increased.

Repetatur haustus anodynus hora somni.

— 18th. Died about three o'clock this morning.

On opening the abdomen the omentum was found shrunk and gathered up into a firm knotty mass. The stomach, duodenum, and jejunum appeared perfectly free from disease: towards the lower part of the ilium some marks of inflammation were conspicuous. The colon and rectum were found much thickened, and the texture of their coats so much alter-

ed as hardly to admit of being handled without lacerating them ; on slitting open a portion of the sigmoid flexure of the colon, where it appeared most diseased, the internal surface of the gut exhibited a granulated appearance, and was found covered with small ulcers ; some extravasated blood, approaching to a state of putridity, was also found in this part of the intestine. The liver, spleen, kidneys, and urinary bladder were all found free from any remarkable appearance of disease.

SERGEANT JOHN DOUGLAS, 1807.

Complains of violent pain in his bowels, with griping and tenesmus, but has had no stools since yesterday morning ; complains also of pain in his loins, headache, and thirst ; urine passed in small quantity, and very high coloured. Pulse quick, and rather full, skin hot, tongue white and moist. Was taken ill four or five days ago, but did not report him-

self sick till yesterday.
 Recipe.—Sulphatis sodæ waccinæ,
 Solis in aqua tepida lota ;
 Solutioni addè olei viridis waccinæ ; tritic.
 Si curam statim impendantur.
 Lavatur abdomen panis lactis et aqua calida extraxit.
 Etenim A. M. Hæmorrhoides curantur.
 Habent statim olei triticæ waccinæ.
 Recipe.—Mistura Camphoræ waccinæ et olei viridis triticæ.
 Trinitur opii guttae pœduncularia et in solutione
 Si mundus homo sœni eximius.

APPENDIX IV.

LIVER COMPLAINTS.

Wallajahbad, December 26, 1807.

SERGEANT JOHN DOUGLAS, Æt. 27.

Complains of violent pain in his bowels, with griping and tenesmus, but has had no stools since yesterday morning; complains also of pain in his loins, headach, and thirst; urine passed in small quantity, and very high coloured. Pulse quick, and rather full, skin hot, tongue white and moist. Was taken ill four or five days ago, but did not report himself sick till yesterday.

Recipe.—*Sulphatis sodæ unciam,*
Solve in aquæ tepidæ libra;
Solutioni adde olei ricini unciam; misce.

Sit enema statim injiciendum.

Foveatur abdomen pannis laneis ex aqua calida expressis.

Eleven A. M. *Repetatur enema.*

Habeat statim olei ricini unciam.

Recipe.—*Misturæ Camphoræ unciam,*
Tincturæ opii guttas quadraginta.

Sit haustus hora somni sumendus.

Dec. 27th. Was much relieved by the camphorated draught which he took last night, and had several loose stools after the injection yesterday; complains to-day of severe headach and pain in his bowels. Skin at present covered with profuse perspiration. Pulse quick, tongue clean.

Habeat pulveris ipecacuanhæ et opii grana septem ter die.

Four P. M. Has been attacked this forenoon with cold shivering, headach, and pain in his limbs; skin at present covered with profuse perspiration, which came on soon after the shivering; still complains of slight pain in his bowels, and has had no stool to-day. Pulse 100, tongue foul.

*Recipe.—Calomelanos grana sex,
Opii grana duo.*

Fiant pilulæ tres, quarum capiat duas statim, et tertiam hora somni.

— 28th. Had three stools after his pills last night, and is to-day free from any pain in his bowels; there is an evident remission of his febrile symptoms; at present he complains of nothing but lassitude and prostration of strength. Pulse natural, skin cool, tongue white*.

Habeat statim pulveris corticis cinchonæ semi-drachmam et repetatur omni trihorio.

Habeat etiam vini rubri libram dimidiam indies.

— 29th. Vomited the bark yesterday, and threw up some matter of a greenish colour along with it; complains to-day of violent pain in his stomach, but continues free from

* At this period the case assumed so much the appearance of a common remittant fever that the bark was prescribed; and the rejection of this and other medicines, in the present case, was one of the first circumstances which turned my attention to that irritability of the stomach afterwards found to be so characteristic of liver complaints.

headach ; has had no stool since yesterday morning, although he took six grs. of calomel, with one gr. of opium, yesterday afternoon. Pulse 90, skin rather hot, tongue white.

Habeat statim pilularum colocynthidis compositarum duas.

Seven P. M. Vomited soon after taking the pills, and had only one stool this forenoon ; complained to-day of violent pain in his stomach, which is now much relieved by a blister applied to the scrobiculus cordis ; had an emollient injection, and a pill of calomel and opium this evening, from which he has had one stool, and feels much relieved. Pulse 90, skin rather hot.

Habeat hora somni pulveris ipecacuanhæ et opii grana duodecim.

Dec. 30th. Slept pretty well during the night, and sweated a good deal after the Dovers powder ; is at present free from any pain whatever, and complains of nothing but weakness. Pulse 90, skin moist, tongue clean.

Capiat pulveris ipecacuanhæ et opii grana quinque tertio quaque hora.

— 31st. Has had three stools since yesterday morning of a pretty natural appearance, but accompanied with a good deal of mucus ; stomach still in a very irritable state, rejecting almost every thing he takes, and he vomits a considerable quantity of bile. Pulse 90, skin rather hot, tongue white.

*Recipe.—Calomelanos grana quinque,
Opium grani quadrantem.*

Sit pilula statim sumenda.

Jan. 1st, 1808. Complained last night of severe pain all over his belly, for which he was put into the warm bath, which gave him a good deal of relief ; still complains of soreness over his bowels, and occasional stitches in his right

side ; was purged a good deal after the calomel and opium yesterday ; stools of a natural appearance. Pulse 96, skin hot, tongue clean.

Recipe.—*Calomelanos granum cum semisse,*

Opii grana duo.

Sit pilula nunc, et iterum hora somni sumenda.

Jan. 2d. Complains still of a general soreness over all his bowels, and occasional stitches in his right side ; stomach still in a very irritable state ; has passed several loose stools during the night, but with nothing very remarkable in their appearance. Pulse about 90, skin rather hot, tongue clean.

Continuentur pilulæ ut heri.

Utatur more solito unguenti hydrargyri semi-drachma mane et vespere.

— 3d. Is at present free from any pain in his bowels, but still complains of occasional stitches in his right side ; has had no vomiting since yesterday morning. Pulse 80, skin moist, tongue clean, belly open.

Continuentur medicamenta.

— 4th. Continues much better, is at present free from any pain whatever, and complains of nothing but weakness. Pulse 80, skin moist, tongue clean, belly rather bound.

Habeat statim olei ricini unciam.

Continuentur unguentum et pilulæ.

— 5th. Had two stools from the castor oil yesterday ; continues free from any pain whatever ; stomach still in a very irritable state. Pulse 90, and rather small, skin moist, tongue clean.

Continuentur unguentum et pilulæ.

Twelve P. M. Stomach has rejected every thing he took to-day ; became delirious about an hour ago, and is at present lying moaning without making any particular complaint. Pulse 90, and weak.

Recipe.—*Sub-carbonatis ammoniæ semi-drachmam,*
Tincturæ opii,
Spiritus lavendulæ compositi, utriusque, drachmam,
Aquæ uncias duas ; misce.

Sit haustus statim sumendus.

Jan. 6th. Died about four o'clock this morning. On opening the body, a few hours after death, the stomach and small intestines were found perfectly sound throughout the whole of their course ; the lower part of the colon and rectum exhibited evident marks of inflammation, and a considerable effusion of coagulable lymph had taken place on their internal coats. On raising up the right lobe of the liver its peritoneal coat gave way, and a large quantity of serous fluid, mixed with pus, was effused, the right lobe of the liver was found diseased throughout, and its texture completely destroyed by suppuration, the left lobe and lobulus spigelii appeared perfectly sound ; the inflammation had extended to the right lobe of the lungs, which was found adhering to the diaphragm opposite to the coronary ligament of the liver.

Wallajahbad, Dec. 29, 1807.

JAMES M'MANN.

Complains of pain over the fore part of his belly, particularly towards the right side, with considerable difficulty in

breathing. Pulse 80, but not full, skin hot, tongue white, belly regular, and stools of a natural appearance.

Imponatur vesicatorium hypochondrio dextero.
Habeat statim sulphatis sodæ semi-unciam.

Dec. 30th. Pain of side and difficulty of breathing much relieved by the blister; complains to-day of pain at the top of his right shoulder. Pulse 80, but not full, skin cool, tongue clean. Salts did not begin to operate till towards evening, and are still continuing to purge him a good deal.

Recipe.—*Calomelanos grana tria,*
Opii grani quadrantem.
Sit pilula nunc, et iterum hora somni sumenda.

— 31st. Complains of pain at the top of his right shoulder; which, he says, was so severe as to deprive him of sleep during the night; pain of side almost gone. Pulse and heat natural, tongue clean, belly regular.

Continuentur pilulæ ut heri.

Jan. 2d. Still complains of slight pain in his right shoulder; pain of side quite gone. Pulse and heat natural, tongue clean, belly regular.

Continuentur pilulæ.

— 3d. Pain of shoulder much relieved, makes now no complaint of his side. Pulse and heat natural, tongue clean, belly regular.

Continuentur pilulæ.

— 4th. *Continuentur pilulæ.*

— 6th. Continues free from any pain.

— 7th. Dismissed.

Wallajahbad, July 20, 1808.

DENNIS BRYSON, Æt. 25.

Complains of pain in the right hypochondrium, stretching at times to his shoulder, with a frequent dry cough, and occasional difficulty of breathing. Pulse 76, skin cool, tongue white, belly costive.

Has had repeated attacks of a similar kind since the month of April last; his present symptoms came on a few days ago; on their first appearance a blister was applied to his right side, which relieved the pain considerably.

Recipe.—*Calomelanos granum,*
Pulveris antimonalis grana duo.

Sit pilula mane et vespere sumenda.

July 21st. Feels still a dull pain and sense of weight in his right side.

Continuentur pilulæ.

— 22d. No particular change; the pain of his side does not increase.

Continuentur pilulæ.

— 23d. Continues better, still feels a sense of weight in the right hypochondrium, but no fixed pain.

Continuentur pilulæ.

— 24th. This morning the pain of his side returned with increased violence, attended by singultus and difficulty of breathing.

Continuentur pilulæ,

Imponatur vesicatorium hypochondrio dextero.

July 25th. Felt great relief from the application of the blister, which rose well.

Continuentur pilulæ.

— 26th. The pain of his side continues, but is not so severe; mouth not yet affected.

Continuentur pilulæ.

— 27th. He continues much as yesterday; belly regular.

Continuentur pilulæ.

— 28th. He says the pain of his side is much as yesterday.

Continuentur pilulæ.

— 29th. Feels the pain of his side still severe; belly costive; mouth not at all affected.

Habeat olei ricini unciam cum semisse.

Continuentur pilulæ.

— 30th. Had several stools of a pretty natural appearance, after the castor oil yesterday; pain of side much relieved; complains of slight dyspnœa. Pulse and heat natural, tongue clean.

Habeat pilularum hydrargyri grana quinque nocte et mane.

— 31st. Pain of side almost gone; still complains of slight dyspnœa. Pulse 70, skin rather hot, belly regular.

Continuentur pilulæ hydrargyri.

August 1st. Mouth slightly affected by the mercury; still complains of slight dyspnœa, but no pain of side; belly regular.

Continuentur pilulæ.

July 2d. Continues free from any pain, but still complains of slight dyspnœa; mouth slightly affected. Pulse natural, belly regular.

Continuentur pilulæ.

— 3d. Dismissed—Convalescent.

Wallajahbad, Oct. 22, 1808.

DENNIS BRYSON, Æt. 25.

Was admitted last night, complaining of severe and fixed pain on the right side of the spine, below the posterior extremities of the false ribs, and extending upwards to the shoulder; a blister was applied to the part, and a purgative injection administered; had several white coloured stools after the injection; blister has risen well; pain continues unabated, and accompanied with frequent dry cough, and dyspnœa. Pulse (which is naturally very slow) at present about 70, heat natural, tongue foul, and loaded.

Was reported sick four days ago, and has used some pills, with the nature of which he is unacquainted. Has been repeatedly in hospital previous to this, labouring under symptoms of hepatitis.

Habeat sulphatis sodæ unciam cum semisse.

— 23d. Had several copious stools after the salts yesterday; pain much relieved; dyspnœa continues. Pulse 68, heat natural, tongue white.

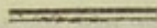
Habeat omni trihorio pulveris ipecacuanhæ et opii grana eptem.

Oct. 24th. Sweated copiously after his powders yesterday; pain completely removed; he still complains, however, of a slight oppression in his breathing, and frequent dry cough. Pulse 66, heat natural, bowels regular.

Repetantur pulveres.

— 26th. Is now free from any pain whatever. Pulse 64, heat natural, bowels regular.

Dismissed.



Fort St. George, February 10, 1809.

SERGEANT GRAHAM, *Æt.* 26.

Complains of fixed pain in the right hypochondrium, accompanied with dyspnœa, and frequent dry cough; it is much increased by lying, either on the right or left side, and is only alleviated by lying on his back. Pulse 90, heat natural, tongue clean, bowels bound.

Has been for two days past subject to regular attacks of cold shivering, succeeded by increased heat of skin and sweating; the pain of side came on about twelve o'clock last night.

Habeat statim sulphatis sodæ unciam cum semisse.

Imponatur vesicatorium parti dolenti.

— 11th. Had several copious stools from the salts; blister has risen well; pain of side somewhat relieved; had another attack of shivering yesterday forenoon; it appears that he was subject to an obstinate and long continued intermittent, in the West Indies, about four years ago. Pulse 90, skin hot, tongue clean.

Recipe.—*Calomelanos grana duo,*

Pulveris antimonalis grana tria.

Sit pulvis ter die sumendus.

Infricatur cruribus vespere unguenti hydrargyri semi-
drachma.

Feb. 12th. Had several loose stools after his powders yesterday; still complains much of the pain in his side, which impedes his breathing, is also much distressed with a short dry cough. Pulse 90, skin hot, tongue clean, appetite bad, thirst urgent.

Continuentur medicamenta ut heri,

Vespere utatur balneo tepido.

— 13th. Pain of side much relieved, while in the warm bath; it still, however, recurs at intervals with great severity; has had very frequent stools since last visit, and has passed a small quantity of blood with them. Pulse about 90, skin hot, tongue clean.

Intermittantur pulveres.

Continuentur unguentum hydrargyri et balneum tepidum.

Habeat hora somni pulveris ipecacuanhæ et opii grana duo-
decim.

— 14th. Slept well, and sweated profusely during the night; still complains much of pain in the right side; cough very frequent; has expectorated a good deal of yellow viscid mucus since last report. Pulse 88, tongue clean, bowels regular; mouth not yet affected by the mercury.

Continuentur medicamenta ut heri.

— 15th. Another blister was applied to his side last night, a little above the former; the pain, however, still continues severe; cough less frequent; expectorates a good deal

of yellow matter, apparently mixed with pus. Pulse 86, tongue clean, bowels regular.

Intermittantur pulveres et balneum tepidum.

Continuetur unguentum hydrargyri.

Recipe.—Pulveris antimonalis,

Pulveris scillæ maritimæ, utriusque, grana tria.

Sit pulvis ter die sumendus.

Feb. 16th. Observed no particular effect from his medicine yesterday; still complains much of pain in his right side, and is also troubled with frequent cough. Pulse 84, heat natural, tongue clean, bowels rather loose.

Continuentur unguentum et pulveres.

— 18th. Slept better last night than he has done since his admission; still complains, however, of severe pain in his side, at intervals; cough still troublesome; expectorated a good deal of whitish coloured matter, apparently mixed with pus. Pulse 80, heat natural, bowels regular, mouth slightly affected by the mercury.

Continuentur medicamenta; et habeat hora somni, pulveris ipecacuanhæ et opii grana decem.

— 19th. Pain of side has been more severe during the night; cough frequent; expectoration diminished. Pulse 80, bowels regular.

Continuentur medicamenta.

— 20th. Pain of side increased greatly last night; warm fomentations were applied to the part, which gave him much relief; cough still frequent. Pulse 80, skin rather hot, tongue clean, bowels regular.

Continuentur medicamenta.

Continuentur etiam fomenta.

Feb. 21st. Continues to expectorate a quantity of viscid matter, apparently mixed with some pus ; pain of side relieved. Pulse 80, heat natural, bowels regular.

Continuentur medicamenta.

— 22d. Is still troubled with frequent cough, and expectorates with much difficulty ; pain of side as before. Pulse 80, bowels regular.

Intermittantur pulveres ex scilla et pulvere antimoniali.

Continuentur pulvis ipecacuanhæ et opii, et unguentum hydrargyri.

Recipe.—Tincturæ opii camphoratæ unciam,

Mucilaginis gummi acaciæ arabicæ uncias duas,

Aquæ libram, misce.

Sit mistura cujus capiat unciam urgente tussi.

— 25th. Still complains occasionally of pain in his right side, extending towards the shoulder ; expectorates a good deal of tough viscid phlegm, without any appearance of pus ; cough less frequent ; mouth slightly affected by the mercury. Pulse 80, skin cool, bowels regular.

Continuentur unguentum, mistura, et

Pulvis ipecacuanhæ et opii.

Habeat indies vini libram dimidiam.

March 1st. Pain of side still severe, particularly on attempting to move ; complains also of pain about the top of the right shoulder ; cough still very frequent, accompanied with mucous expectoration ; it seems he has been subject to this for many months past. Pulse 80, heat natural, appetite pretty good, bowels regular.

Continuetur mistura et vinum.

Recipe.—Calomelanos granum,

Opii grana duo.

Sit pilula mane et vespere sumenda.

March 4th. Pain of side continues, and is much increased on attempting to cough or move; expectoration diminished; cough less frequent. Pulse 80, skin cool, bowels rather loose.

Continuentur medicamenta.

— 7th. Mouth considerably affected by the calomel; cough less frequent; expectoration more copious, but without any appearance of pus in it; still complains a good deal of pain in his right side, about the anterior extremities of the false ribs. Pulse 80, heat natural, appetite pretty good, bowels regular.

Continuentur medicamenta.

— 11th. Mouth a good deal affected by the mercury; pain of side considerably relieved within these few days; cough and expectoration diminished. Pulse 84, heat natural, bowels regular.

Intermittantur pilulae

Continuetur mistura.

— 15th. Has been for two days past quite free from any pain of side; cough less frequent; expectoration diminished, and consisting entirely of mucus. Pulse 80, tongue clean, appetite good, bowels regular.

Continuetur mistura.

— 19th. Is now free from pain, and is very little troubled with cough; complains only of debility. Pulse 80, bowels regular.

Dismissed—Convalescent.

Masulipatam, July 6, 1810.

JAMES DONAHOE, Æt. 17.

Admitted two days ago, complaining of pain about the region of the liver, accompanied with dyspnœa, urgent thirst, and obstinate costiveness; pain much relieved by a blister, which was applied to the part; took a dose of castor oil yesterday, which produced several white coloured stools. Pulse 84, heat natural, tongue clean.

Recipe.—*Calomelanos grana septem,*

Pulveris radices convolvuli jalapæ scrupulum.

Fiat pulvis statim sumendus.

Applicetur parti vesicatæ unguentum cantharidis vesicatoriæ.

July 7th. No stool from his medicine yesterday; pain of side continues easier; dyspnœa quite gone. Pulse 86, skin hot.

Habeat statim olei ricini uncias duas.

Injiciatur enema purgans omni semi-hora donec alvus soluta sit.

— 8th. Several stools of a natural appearance after his medicine yesterday; pain of side and dyspnœa gone.

Omittatur unguentum cantharidis, et

Applicetur parti vesicatæ unguentum simplex.

Recipe.—*Calomelanos grana duo,*

Opii granum;

Fiat pilula ter die sumenda.

July 11th. Complains this morning of headach and vertigo, but continues free from any pain of side. Pulse 84, heat natural.

Recipe.—*Calomelanos grana octo,*
Pulveris radices convolvuli jalapæ scrupulum.
Sit pulvis statim sumendus.

— 12th. Several copious stools after his medicine yesterday; headach and vertigo continue. Pulse 80, skin cool.

Recipe.—*Calomelanos grana duo,*
Pulveris antimonialis grana tria.
Sit pulvis, quem capiat ter die.

— 13th. Free from complaint.

Dismissed.

Masulipatam, July 20, 1810.

EDWARD WILLIAMS, Æt. 32.

Admitted yesterday evening, complaining of pain about the umbilical region, and sickness at stomach, and has for some days past had frequent scanty stools, accompanied with a good deal of bloody mucus; took eight grains of calomel last night, and had two purgative injections; these have produced several copious dark coloured stools, and have given him great relief. Pulse 80, heat natural, tongue foul.

Capiat infusi sennæ uncias duas quarta quaque hora.
Statim injiciatur enema, purgans et repetatur vespere.

— 21st. Several copious whitish coloured stools after his physic yesterday. A blister was applied last night above the

navel, this has risen well and removed the pain. Pulse 80, skin cool, tongue white.

Recipe.—*Calomelanos grana tria,*
Pulveris radiceis rhei grana decem.

Fiat pulvis ter die sumendus.

July 22d. Several stools of a more natural appearance after his medicine yesterday; complains very little of pain. Pulse 80, heat natural, tongue white.

Habeat infusi sennæ uncias duas omni hora ad quartam vicem.

— 23d. Was affected with vertigo and cold shivering about eleven o'clock last night; complains this morning of fulness and oppression about the region of the stomach, but no pain; has had several stools of a natural appearance since last visit. Pulse 84, skin cool, tongue white.

Recipe.—*Calomelanos grana duo,*
Pulveris antimonialis, grana tria.

Fiat pulvis ter die sumendus.

— 24th. Several stools of a natural appearance since last visit; oppression about the stomach continues. Pulse 80, tongue white.

Recipe.—*Calomelanos grana duo,*
Pulveris rhei, grana duodecim.

Sit pulvis ter die sumendus.

— 26th. Is much distressed with tenesmus, and ardor urinæ; but complains of no pain; stools accompanied with some blood. Pulse 84, skin moist, tongue white.

Capiat infusi sennæ uncias duas omni hora ad tertiam vicem.

Injiciatur enema anodynum ter die.

July 28th. Continues free from pain; stools of a more natural appearance; tenesmus continues unabated; appetite bad. Pulse 78, tongue white.

*Habeat olei ricini unciam cum semisse,
Continuetur enema anodynum.*

— 29th. Several stools after the castor oil yesterday, accompanied with a quantity of blood; complains of no pain; tenesmus distressing. Pulse 78, tongue clean.

*Habeat ter diē pulveris ipecacuanhæ et opii grana decem.
Continuentur enemata.*

— 31st. Stools frequent, of a dark colour, accompanied with a quantity of frothy blood; complains of no fixed pain, but is much distressed with tenesmus and ardor urinæ. Pulse 86, tongue white.

*Capiat infusi sennæ uncias duas omni hora ad quartam vicem.
Injiciatur enema anodynum hora somni.
Habeat vini libram dimidiam indies.*

August 1st. Infus. sennæ purged him freely; stools of a dark brownish colour, and accompanied with a quantity of blood; complains this morning of pain in the lower part of his belly; tenesmus and ardor urinæ diminished. Pulse 86, skin hot, tongue white.

*Repetatur infusum sennæ omni hora ad tertiam vicem.
Repetatur enema anodynum hora somni.
Vespere imponatur vesicatorium, dolore urgente.*

— 2d. Several black stools yesterday, accompanied with a quantity of blood; blister not applied; pain of bowels gone; tenesmus and ardor urinæ continue. Pulse 90, heat natural, tongue more clean.

Recipe.—*Calomelanos grana tria,*

Opium granum.

Sit pilula ter die sumenda.

Repetatur enema anodynum, mane et vespere injiciendum.

Aug. 3d. Several dark coloured stools since last visit; no fixed pain of bowels; tenesmus diminished. Pulse 90, heat natural.

Continuentur medicamenta.

— 4th. Complains much of griping, but no fixed pain in his bowels; stools of a dark brown colour, and accompanied with some blood. Pulse 90, tongue foul,

Continuentur medicamenta.

Habeat statim olei ricini unciam.

— 5th. Was much distressed with griping, and had frequent dark coloured stools, accompanied with blood, during the night; is much distressed with tenesmus. Pulse 90, skin moist, tongue foul.

Recipe.—*Calomelanos grana duo.*

Pulveris rhei grana duodecim.

Sit pulvis ter die sumendus.

Continuetur enema ut antea.

— 6th. Several copious stools yesterday, passed more freely, and of a more natural appearance. Pulse 80, skin rather hot, tongue foul.

Continuentur pulveres et enemata.

— 9th. Stools of a more natural appearance; continues free from any fixed pain, but is distressed with tenesmus. Pulse 78, heat natural, tongue white.

Continuentur medicamenta.

Aug. 11th. Continues free from any fixed pain, but complains occasionally of griping, and is distressed with tenesmus; stools of a pretty natural appearance. Pulse 80, heat natural.

*Habeat statim infusi sennæ uncias quatuor,
Continuentur enemata.*

— 12th. Has had frequent stools since last visit, accompanied with a good deal of blood; has also been much distressed with griping, but complains of no fixed pain. Pulse 90, heat natural, tongue white.

*Recipe.—Calomelanos grana duo,
Opī granum.
Sit pilula ter die sumenda.
Habeat enema anodynum ter die, et balneum tepidum vespere.*

— 13th. Complains this morning of pain and oppression about the scrobiculus cordis, accompanied with nausea; stools frequent and accompanied with blood. Pulse 90, heat natural.

*Continuentur pilulæ et enemata.
Imponatur vesicatorium parti dolenti.*

— 14th. Blister has risen well; pain relieved, but he still complains of oppression about the epigastrium, and an inclination to vomit; has had frequent bloody stools during the night. Pulse 90, heat natural, tongue white.

*Intermittantur pilulæ.
Recipe.—Calomelanos grana duo,
Pulveris rhei grana decem.
Fiat pulvis ter die sumendus.
Habeat enema anodynum bis die, et vespere, pulveris
ipecacuanhæ et opī grana quindecim.*

Aug. 15th. Has had frequent stools during the night, accompanied with blood, and apparently some purulent matter; complains of occasional griping, but no fixed pain. Pulse 94, heat natural, tongue white.

Recipe.—*Calomelanos grana tria,*

Opii grana duo.

Sit pilula ter die sumenda.

Continuetur enema anodynum bis die.

Foveatur abdomen pannis laneis ex aqua calida expressis.

— 17th. Has vomited a quantity of green bile during the night; complains much of griping, but no fixed pain; stools frequent and dark coloured, but accompanied with less blood. Pulse 90, tongue foul.

Habeat infusi sennæ uncias duas omni hora ad quartam vicem.

Continuentur pilulæ.

Utatur, more solito, unguenti hydrargyri semi-drachma bis die.

— 18th. Complains much this morning of pain and oppression about the epigastrium; on examining the part, a small enlargement is perceptible on the left of the linea alba, near the head of the rectus muscle, to which he points particularly as the seat of the greatest pain. Vomited a quantity of green bile again last night; had no stool after the infus. sennæ yesterday, until he got a purgative injection last night, which produced several scanty stools mixed with blood, and apparently some purulent matter. Pulse 94, skin covered with profuse perspiration, tongue foul.

Continuentur pilulæ et unguentum.

Capiat haustus effervescentes omni hora.

Aug. 19th. Pain in the epigastrium diminished, and the enlargement mentioned yesterday is not so conspicuous; has had frequent retchings since last visit, but vomited nothing; stools have been frequent, but more natural in appearance. Pulse 90, skin moist.

Continuentur pilulæ, haustus, et unguentum
Applicentur fomenta calida scrobiculo cordis.

— 20th. Pain in the epigastrium diminished, but he complains of a throbbing sensation in it, particularly on making any exertion; stools more natural. Pulse 90, tongue foul.

Continuentur medicamenta.

— 21st. Complains much of debility and oppression about the epigastrium, but not much pain; tenesmus continues as before; stools frequent, but of a pretty natural appearance. Pulse 94, heat natural, tongue foul.

Capiat infusi sennæ uncias duas omni hora ad tertiam vicem.

Continuentur pilulæ et unguentum.

— 22d. Stools of a pretty natural appearance after the infus. sennæ. The tumour appearing pretty well pointed, just over the top of the left rectus muscle, it was judged advisable to open it; the skin, cellular membrane, and fascia of the rectus, being divided with a scalpel, a trocar was entered near the cartilaginous extremity of the eighth rib, and pushed forward in a slanting direction upwards, to nearly its whole length; on withdrawing the stilette, nothing followed but a little limpid serum. A probe was then inserted through the canula, and something which obstructed its orifice pushed backwards, when about one and a half ounce of the same lim-

pid serum flowed out ; the canula was allowed to remain in the wound, and its orifice closed with a cork.

Continuetur unguentum.

Habeat tincturæ opii drachmas duas hora somni.

Aug. 23d. The canula was withdrawn from the wound yesterday evening ; nothing followed but a little bloody serum ; the lips of the wound appear almost united this morning ; he feels himself considerably relieved from the pain and oppression in the epigastrium ; but a considerable tumour still appears in the original site about the top of the rectus ; a pulsation synchronous with that at the wrist is observed in the tumour, as well as over the whole of the epigastrium ; slept but indifferently during the night ; stools frequent, but pretty natural. Pulse 80, skin cool, appetite bad, thirst urgent.

Continuentur unguentum et haustus anodynus.

— 25th. On taking a full inspiration, the tumour collects nearly of its original size, but when lying quiet nothing appears except a very remarkable pulsation over the epigastrium ; he still complains much of oppression about the scrobiculus cordis, but no distinct pain. Pulse 86, heat natural, stools frequent, mouth not yet sore from the mercury.

Continuentur unguentum et haustus.

Habeat pilulas hydrargyri duas mane et vespere.

— 27th. Mouth not yet affected by the mercury ; no change on the tumour. Pulse about 86 in a minute, but somewhat diminished in strength, stools frequent.

Continuentur medicamenta.

— 28th. Complains much of griping in his bowels, and has frequent, reddish, watery stools, passed with a good deal

of straining; tumour in the epigastrium continues as before. Pulse much diminished in strength, but not altered in frequency, skin moist, appetite gone, thirst urgent.

Continuentur medicamenta.

Aug. 30th. Died about six this morning.

The body was examined four hours after death, in presence of Mr. Annesley, the garrison surgeon, and Mr. Jones, his assistant. The rectus muscle of the left side, being dissected out of its sheath, separated from its attachment to the cartilages of the ribs and extremity of the sternum, was turned down towards the pubes. A longitudinal incision was then made through the peritonæum, when a tumour of a very extraordinary appearance presented itself, attached to the liver, between its two lobes, and close on the left of the ligamentum latum; the tumor resembled a pear in shape, and was considerably larger than a goose's egg. It appeared to be composed of a large cyst, formed by the peritonæal coat of the liver, pushed outwards, and much thickened, so as to resemble in thickness the coats of the aorta; its narrow extremity, which pointed downwards, was converted into a cartilaginous substance, and other cartilaginous spots were observed in the body of the cyst; the opening made by the trocar was discovered about the middle of the tumour; the whole mass was then dissected out with a small portion of the liver attached to it. On laying the cyst fully open by a longitudinal incision, an immense number of hydatids rushed out, the largest nearly of the size of a pigeon's egg, perfectly detached, and almost transparent; while others of a smaller size, and deep yellow colour, were clustered together like a bunch of grapes; the inside of the cyst was lined with a layer of what appeared to be inspissated bile, nearly resembling in colour and consistence

the cerumen of the ear. In short, the excellent description given by Dr. Baillie of the appearance of hydatids in the liver, was here verified in every particular, except that the laminae composing the cyst, instead of "giving to the touch the feeling of cartilage," were, in this case, converted into a substance actually cartilaginous; and here instead of the lining of a pulpy substance resembling coagulable lymph, it was more like the cerumen of the ear. Several small abscesses were observed both in the right and left lobes of the liver; the gall bladder contained a moderate quantity of thick deep yellow coloured bile. The intestines appeared all pretty sound, except the caput cæcum, which was somewhat thickened and livid. Nothing remarkable appeared in the cavity of the thorax.

Masulipatam, October 15, 1810.

ROBERT M'INDOO, Æt. 18.

Was admitted on the 2d September, with headach, thirst, pains in his limbs, and other symptoms of fever. Soon after this he complained of pain in his right side, to which he had been repeatedly subject on former occasions. Of late he has been subject to frequent and long continued fits of rigor; the pain continues severe about the region of the liver, notwithstanding the repeated application of blisters. During his present and former illness no less than ten blisters have been applied to the side affected, always affording him temporary

relief. Within these few days he has had frequent fainting fits, and appears extremely languid and debilitated. Appetite bad, thirst urgent, pulse quick, and small, heat natural. A particular livid appearance is remarkable about his eyelids and lips; this has also been conspicuous during a former illness upwards of twelve months ago. Since his admission into hospital last, he has been frequently purged; his stools generally of a whitish colour, frequently watery, and accompanied with portions of undigested food; he has for some time past been using mercury, both in the form of pills and ointment; but his mouth, as yet, is scarcely affected.

Continuentur pilulæ et unguentum.

Recipe.—*Calomelanos grana duo,*

Pulveris rhei grana duodecim.

Fiat pulvis ter die sumendus.

Habeat indies vini libram dimidiam.

Oct. 17th. Stools frequent, whitish coloured, and mixed with pieces of undigested food; pain continues severe all along his right side. Pulse less frequent and fuller, heat natural.

Continuentur medicamenta.

— 19th. Stools watery, and of a whitish colour; pain in his side continues severe; had a fit of rigor during the night. Pulse 80, skin cool.

Continuentur medicamenta.

— 24th. Pain of side easier; had another attack of rigor last night; is generally affected with vertigo and blindness on attempting to walk. Pulse small, about 90 in a minute; stools frequent, watery, and mixed with portions of food.

Continuentur medicamenta.

Oct. 28th. Complains of a sense of weight and oppression about the region of the stomach; no shivering for two nights past; still complains of pain of side. Pulse 86, heat natural, tongue white, bowels loose.

Omittantur pulveres.

Habeat statim infusi sennæ uncias quatuor.

Continuentur pilulæ et unguentum.

Nov. 3d. Still complains of pain about the posterior extremities of the three lowest ribs, and is frequently attacked with vertigo, dimness of sight, and cold shivering; during the continuance of which, his face and hands turn quite livid; stools watery, and of a whitish colour. Pulse quick, heat natural.

Continuentur pilulæ et unguentum.

Repetatur infusum sennæ omni mane.

— 8th. Pain of side continues; stools green coloured and watery. Pulse 90, skin hot.

Continuentur medicamenta.

— 14th. Still complains much of pain in his side, and is frequently attacked with rigor and giddiness; stools frequent, watery, and green coloured; mouth not yet affected by the mercury. Pulse quick, skin cool.

Continuentur omnia.

— 20th. Pain of side easier, stools more natural.

Continuentur medicamenta.

— 22d. Still complains of slight pain in his side; but finds himself, in other respects, much better, and wishes to go to his duty.

Dismissed.

Masulipatam, December 15, 1810.

SERGEANT CLARKE, Æt. 31.

Was admitted yesterday complaining of headach, pain in his limbs and bowels, urgent thirst, and obstinate costiveness; took four doses of the infus. sennæ on his admission, this has produced only one stool; headach relieved; complains this morning of pain under the cartilages of the ninth and tenth ribs of the right side, and extending up to his neck and shoulder. Pulse 80, of moderate strength, skin cool, tongue white.

Emittantur sanguinis e brachio uncia decem.

Imponatur vesicatorium parti dolenti.

Recipe.—Calomelanos grana decem,

Pulveris jalapæ scrupulum.

Fiat pulvis statim sumendus.

— 16th. Pulse 92, small and feeble; the pain relieved; the medicines operated five times; stools not copious, and of a green colour. Tongue dry, and rather foul; complains of pain in his head.

Recipe.—Calomelanos grana sex,

Pulveris antimonialis grana tria,

Opii granum.

Fiant pilulæ duæ statim sumendæ.

Three P. M. *Habeat infusi sennæ uncias duas omni hora, donec alvus satis soluta sit.*

— 17th. Medicines operated freely; stools of a pretty natural appearance; still complains of pain in his right side

and shoulder, with slight headach. Pulse 86, and small, tongue foul, skin moist.

Capiat infusi sennæ uncias duas omni hora ad quartam vicem.

Capiat pilulas hydrargyri duas mane et vespere.

Dec. 18th. Still complains of pain in his side, and slight headach; stools of a pretty natural appearance. Pulse 86, tongue foul.

Continuentur pilulæ.

Habeat statim olei ricini unciam cum semisse.

— 19th. Stools of a deep yellow colour; still complains of slight pain in his side and shoulder; headach almost gone. Tongue foul, skin moist.

Continuentur pilulæ.

Capiat statim sulphatis sodæ uncias duas.

— 20th. Salts operated freely; headach and pain of side easier. Pulse 80, tongue foul.

Continuentur pilulæ.

Recipe.—Calomelanos grana duo,

Pulveris rhei grana duodecim.

Fiat pulvis ter die sumendus.

— 21st. Three or four stools of a pretty natural appearance since last visit; still complains of slight pain in his side. Pulse 80, skin cool.

Continuentur pilulæ.

Capiat pulveris rhei grana duodecim ter die.

— 23d. Complains much this morning of headach; pain of side almost gone; stools frequent, and of a pretty natural appearance. Pulse 80, skin cool, tongue foul.

Capiat pilulas hydrargyri tres mane et vespere.

Habeat statim sulphatis sodæ uncias duas.

Dec. 24th. Salts purged him freely; headach and pain of side almost gone. Pulse 80, skin cool, tongue foul.

Continuentur pilulæ.

Habeat infusi sennæ uncias quatuor omni mane.

— 26th. Still complains of slight pain in his side whenever he attempts to cough; stools frequent, but of a natural appearance; mouth not yet affected. Pulse natural, skin cool.

Continuentur medicamenta.

— 29th. Mouth slightly affected; complains of no pain; stools of a natural appearance. Pulse natural, skin cool.

Continuentur medicamenta.

Jan. 1st. Continues free from pain; mouth very little affected; stools of a pretty natural appearance. Pulse 78, heat natural.

Continuentur medicamenta.

— 3d. Mouth considerably affected by the mercury; no pain whatever. Pulse natural, bowels open.

Continuetur infusum sennæ.

Continuentur etiam pilulæ, alternis diebus sumendæ.

— 7th. Mouth considerably affected; pain of side quite gone. Appetite good, bowels regular.

Dismissed.

Bangalore, November 22, 1813.

DISSECTION OF

PRIVATE JAMES CLARKE, *Æt.* 25.

This man was last admitted into hospital on the 3d of August, with symptoms of hepatitis, to which he had long been subject; for some time previous to his death he expectorated daily large quantities of purulent matter. On examining the body this morning, a large abscess, containing not less than a quart of purulent matter was found in the right lobe of the liver; a communication existed through the diaphragm, between this cavity and the right lobe of the lungs. A remarkable hardness and incipient ossification was observed in the cartilages of the inferior true, and three or four superior false ribs of the right side over the diseased liver, while the corresponding cartilages of the left side were not harder than is usual in subjects of his age.

Bangalore, January 3, 1814.

THOMAS FIELD, *Æt.* 21.

Complains of pain in the right hypochondrium, with slight dyspnœa, to which he has been subject for some days past,

and attributes it to hard drinking during the Christmas holidays. Pulse quick, heat natural, bowels regular.

Emittantur sanguinis unciae sexdecim.

Jan. 4th. Blood drawn yesterday exhibits no appearance of the buffy coat; pain of side much relieved; dyspnoea almost gone. Pulse rather quick, bowels regular.

Habeat statim sulphatis magnesiæ uncias duas.

— 5th. Several copious stools of a natural appearance after the salts yesterday; pain of side quite gone. Pulse and heat natural, tongue clean.

Dismissed.

Bangalore, January 25, 1814.

ROBERT GURNEY, Æt. 21.

A stout, plethoric, young man; complains of acute pain in the right hypochondrium, extending up towards the right shoulder, and increased on a full inspiration. Pulse upwards of 90, and full, bowels regular; complaints of four or five days standing.

Emittantur sanguinis e brachio unciae triginta, et applicentur hirudines duodecim parti quae dolet.

Injiciatur statim enema purgans.

— 26th. Blood drawn yesterday covered with a buffy coat; pain of side very little relieved; has had a restless night, and passed several dark coloured stools after the injection. Pulse 88, skin cool, thirst urgent.

*Iterum emittantur sanguinis unciae duodecim vel viginti.
Capiat statim sulphatis magnesia uncias duas.*

Six P. M. Twenty ounces of blood were taken from his arm this morning; it still shews the inflammatory crust; salts have produced several copious dark coloured stools; pain of side somewhat relieved. Pulse 98, and full.

Repetatur venaesectio et effluit sanguis donec syncope inducitur, et hora somni capiat pulveris ipecacuanhae et opii grana duodecim.

— 27th. About thirty ounces of blood were drawn last night, when deliquium supervened; the blood still exhibits the buffy coat; sweated copiously after the Dover's powder; slept little or none during the night; pain of side very little relieved. Pulse 90, of moderate strength, heat natural.

Emittantur sanguinis unciae triginta.

Capiat infusi sennae uncias duas omni hora ad quartam vicem.

Six P. M. Blood drawn this morning shews no buffy coat; has had only two scanty evacuations after the infus. sennae; pain of side considerably relieved. Pulse quick, of moderate strength.

Injiciatur statim enema purgans.

Imponatur vesicatorium hypochondrio dextero; et

Habeat hora somni pulveris ipecacuanhae et opii grana duodecim.

— 28th. No stool after the injection last night; slept very little, but sweated copiously during the night; blister has risen well; pain of side relieved. Pulse quick, skin rather hot.

Capiat sulphatis magnesia unciam cum semisse.

Jan. 29th. Salts operated freely last night ; pain of side continues easier. Pulse 80, heat natural.

Capiat mane et vespere pilularum hydrargyri grana decem.

Utatur bis die unguenti hydrargyri drachma, more solito.

— 30th. Complains a good deal this morning of pain about the scrobiculus cordis ; in other respects as before.

Continuentur pilulæ et unguentum.

— 31st. Pain of side almost gone ; still complains, however, of pain about the pit of his stomach. Pulse 68, heat natural, tongue clean, bowels regular.

Continuentur medicamenta.

Feb. 1st. Still complains of slight pain about the pit of his stomach. Pulse 78, skin cool, bowels open.

Continuentur medicamenta.

— 3d. Mouth not yet affected by the mercury ; complains more to-day of pain at the scrobiculus cordis. Pulse quick, bowels open.

Continuentur medicamenta.

Imponatur vesicatorium parti quæ dolet.

— 4th. Blister has risen well ; pain relieved.

Continuentur medicamenta.

— 7th. Gums slightly affected by the mercury ; pain at the scrobiculus cordis quite gone. Pulse and heat natural, tongue clean, bowels regular.

Continuentur medicamenta.

— 8th. Is now affected with profuse salivation ; continues free from pain.

Intermittantur medicamenta ; et utatur solutione aluminis pro collutorio.

Jan. 11th. Salivation continues profuse ; is now entirely free from pain. Pulse quick, bowels costive.

Continuetur collutorium.

Habeat statim sulphatis magnesicæ unciam.

— 12th. Salts operated freely ; salivation continues.

Continuetur collutorium.

— 16th. Salivation diminished ; continues free from pain ; bowels regular.

— 20th. Is now entirely free from pain. Appetite good, bowels regular.

Dismissed.

APPENDIX V.

A GENERAL STATEMENT

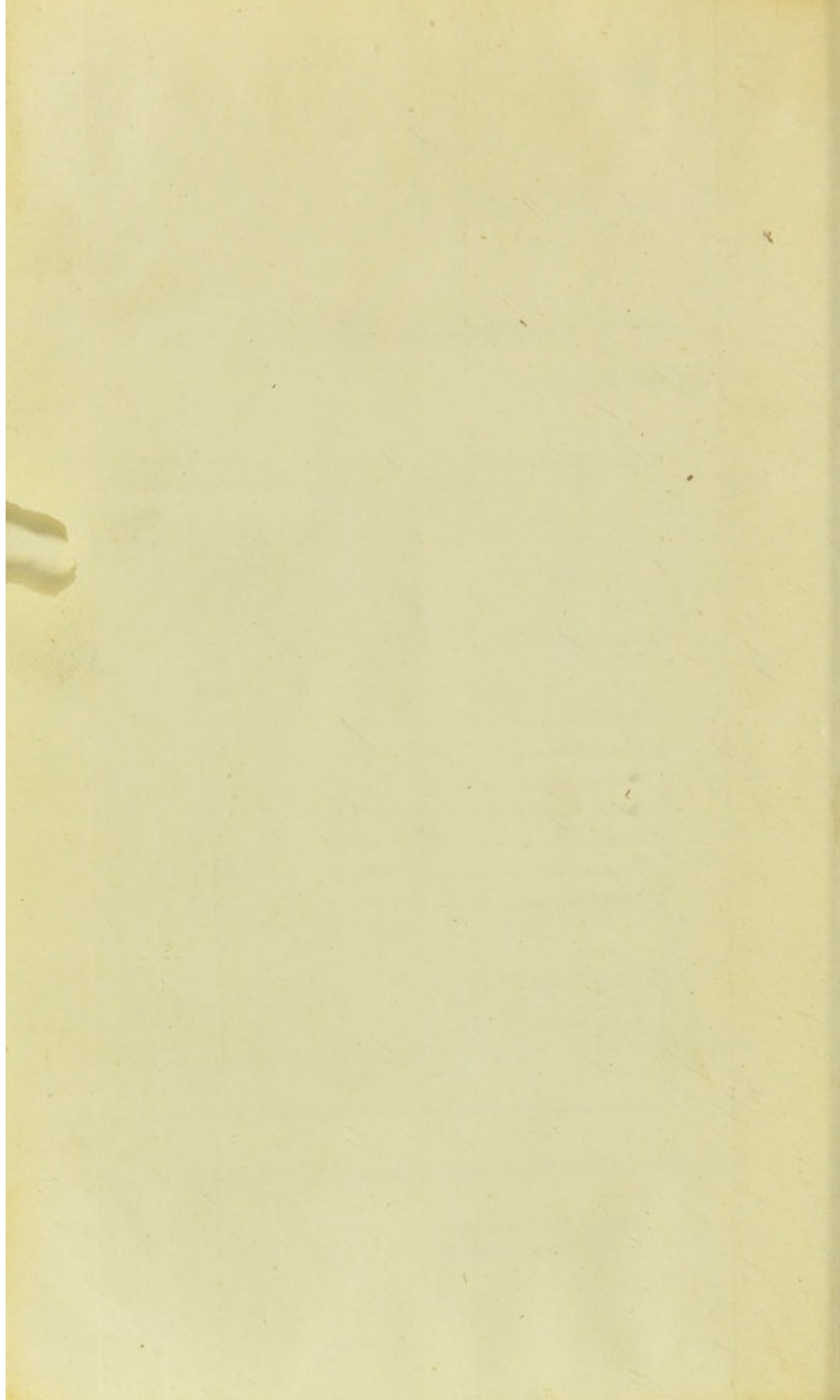
OF THE

Sickness of the European Troops at the Principal Military Stations under the Madras Establishment, from 1st January 1807, to 31st October 1808.

DISEASES.	ARCOT.		BANGALORE.		BELLARY.		CANNANORE.		Pt. St. GEORGE.		GOOTY.		HYDRABAD.		MASULIPATAM.		NUNDIRROOG.		St. THOS. MOUNT.		SERINGAPATAM.		TRICHINOPOLY.		VELLORE.		WALLAJAHBAD.		
	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	Number of Sick from 1st January 1807 to 31st October 1808.	Deaths from 1st January 1807 to 31st October 1808.	
Fever.....	484	7	800	10	160	1	682	6	649	8	566	12	916	16	548	12	101	1	173	3	285	121	710	5	198	9	577	26	
Flux.....	1017	60	1374	60	227	13	927	28	1493	63	670	28	699	29	455	21	97	6	407	11	851	52	1084	31	303	22	1662	149	
Hepatitis.....	259	7	226	10	133	8	291	2	362	9	230	14	457	13	69	4	47	3	85	1	198	8	343	8	89	5	34	4	
Rheumatism.....	132	.....	231	1	25	1	140	.....	28	.....	43	.....	110	.....	142	.....	44	.....	30	.....	215	.....	206	1	21	1	47	1
Pleurisy.....	9	15	22
Dropy.....	4	49	1	8	1	15	5	5	1	7	2	7	2	37	4	8	10	1
Ulcers.....	287	.....	526	.....	116	.....	140	.....	668	.....	329	2	98	.....	381	2	16	.....	47	.....	155	.....	290	.....	69	.....	348	16
Veneral.....	1041	1	3813	2	613	2	1045	3	1232	.....	332	2	1141	2	374	1	213	2	349	.....	956	6	1029	4	451	1	206	8
Other Diseases.....	472	7	623	8	479	6	410	7	881	12	794	12	470	3	614	11	70	3	516	8	1197	3	556	36	225	3	338	12	
Total.....	3596	82	7668	92	1961	34	3650	51	5318	93	3286	72	3898	65	2642	55	596	15	1617	24	3557	190	4248	85	1345	41	3222	217	
Average Strength Monthly, from 1st January 1807, to 31st October 1808.....	1316	.....	3297	.....	710	.....	1468	.....	1784	.....	1263	.....	3393	.....	1285	.....	736	.....	1050	.....	1693	.....	1638	.....	699	.....	1914	.....
Deaths per cent.....	5.790.	.....	3.708.	.....	4.788.	.....	3.474.	.....	4.213.	.....	5.700.	.....	4.666.	.....	4.365.	.....	2.038.	.....	2.285.	.....	11.222.	.....	5.189.	.....	7.725.	.....	11.337.	.....

* The proportion of deaths at this Station is obviously much increased, from the circumstance of two newly arrived Regiments having been stationed there during the period of this Return.

Fort St. George, }
27th March, 1809. }



Repaired

Nov. 1961

