

Observations on the jail, hospital, or ship fever / by Robert Robertson.

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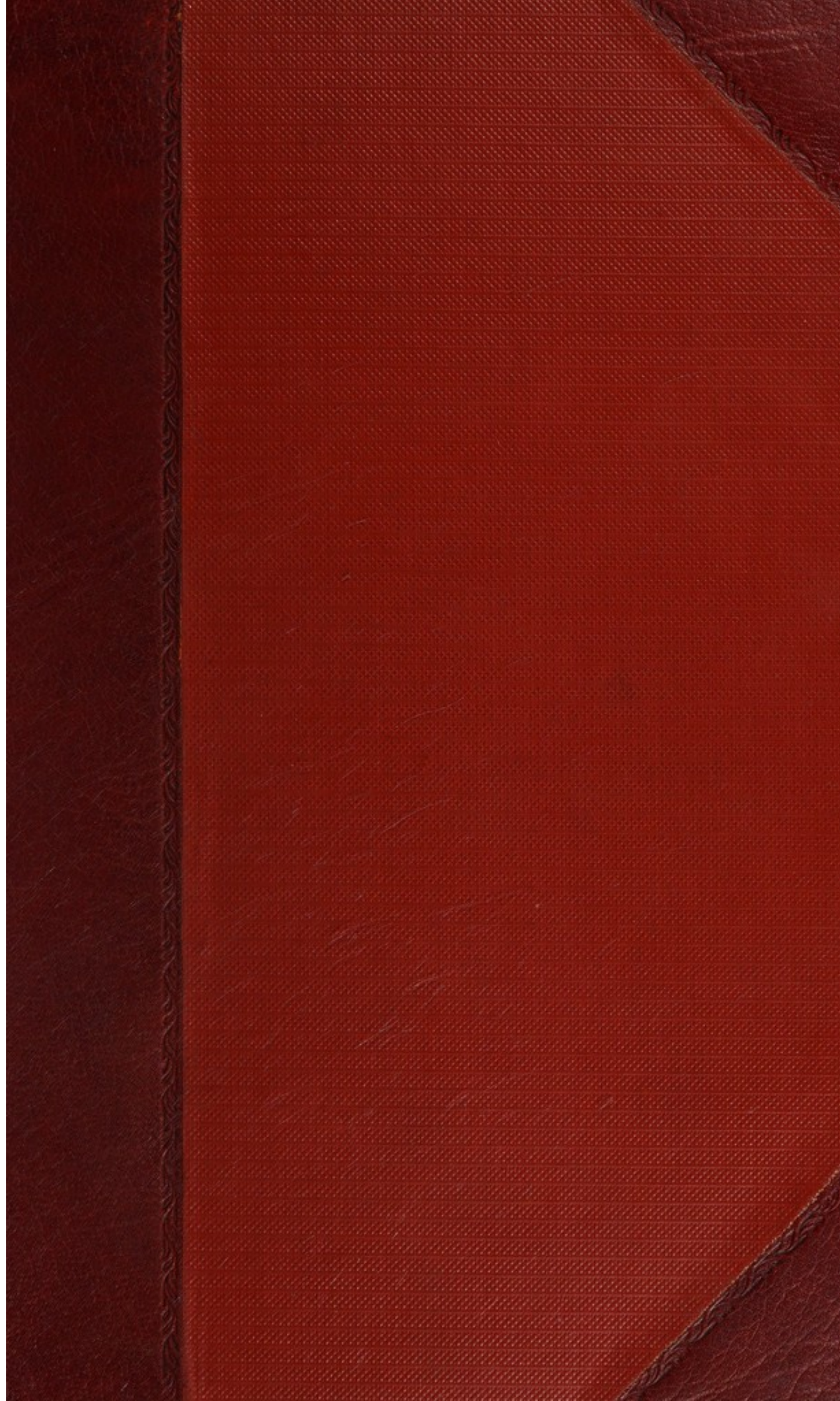
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O B S E R V A T I O N S

O F T H E

J A I L, H O S P I T A L, O R S H I P

F E V E R

OBSERVATIONS

ON THE

SHIP HOSPITAL

F. E. V. R.

OBSERVATIONS

ON THE

JAIL, HOSPITAL, OR SHIP

F E V E R.

BY ROBERT ROBERTSON, M.D.

A SURGEON OF HIS MAJESTY'S NAVY.

OPINIONUM COMMENTA DELET DIES; EXPERIENTIÆ JUDICIA
CONFIRMAT;

LONDON. MEDICAL SOCIETY OF LONDON.

L O N D O N :

PRINTED FOR J. MURRAY, IN FLEET-STREET.

MDCCCLXXXIII.

OBSERVATIONS

JAIL, HOSPITAL, OR SHIP

REVISED

BY ROBERT ROBERTSON, M.D.

A SURGEON OF HIS MAJESTY'S NAVY.

LONDON:

PRINTED FOR J. MURRAY, IN FLEET STREET.

MDCCLXXXIII.

TO
WILLIAM HUNTER, M.D.

Physician Extraordinary to Her Majesty,
Professor of Anatomy to the Royal Academy,
Member of the Royal and Antiquarian Societies,

AND
Member of the Royal Academy of Sciences.

S I R,

IMPRESSED with the highest respect for your talents and character, many reasons induce me to dedicate these Observations to you:—to enumerate them might displease you.

Permit me, only, to request the protection which all improvements, in the Medical department of the Royal Navy, naturally claim from You, since that attentive spirit of enquiry, which now prevails among the Navy surgeons, was first excited by the precepts you inculcated, in the lectures you delivered before them, at an early period of that career which you have since pursued, with so much
honour

honour to yourself, and such signal advantage
to mankind.

Be pleased, also, to accept my most grateful
acknowledgements, for the many favours you
have condescended to confer on me.

I am, S I R,

Your much obliged,

Most obedient, and

Most humble Servant,

ROBERT ROBERTSON.

Kingston, Portsmouth,

May 17, 1782.

P R E F A C E.

IMPORTANT as the facts are which we have stated in the following Observations, they will not, I fear, in the opinion of some readers, be thought conducive to the improvement of Medicine; and there are others, by whom Diaries and Reviews of Sick Lists, and of the Weather, are considered not only as dry and insipid reading, but altogether useless in the Practice of Physic. I must beg leave to inform those gentlemen, that the Observations were collected and published to serve mankind in general, and the Navy in particular; and for the information of such readers as think no circumstance trivial, which leads to so desirable an object: nor their time ill spent, when employed in extricating themselves out of the mazes of prejudice, and intricacies of misleading theories, thro' which experience only can direct us on our way to truth. Without that, we must continue implicitly to follow the steps of those who have

gone before us, by servilely adopting their maxims and practices, which, in many instances, were founded on ill-grounded theory; and thus end our days, without having once dared to think for ourselves, or to benefit society.

Let those, however, who dislike the first part of the Observations, pass over to the second, in the perusal of which, *curiosity* may sometimes, perhaps, excite them to recur to those passages of the former that are alluded to.

To render the subject as clear as it is important, has been my study; and should I, unfortunately, be thought to have failed in attaining this end, I hope it will be generously imputed to the nature of the subject, and the great difficulty of performing it—a task sufficiently arduous for the ablest writer.

The Observations are arranged somewhat differently from the Physical Journal, and I have not described any other disease than the fever. An Introduction was thought necessary to precede the Reviews and Diary, which make the first part; and the Description of the Fever, with the various ways in which we were obliged

liged to treat it, and some tables, that I hope will be agreeable, if not useful to the reader, fill up the second.

Without comparative views of different practices, the successful never can be distinguished from the unsuccessful:—But when those are minutely and faithfully stated, no room is left for disputing which ought to be preferred.—Whoever is in possession of those advantages, and will not profit by them, must be obdurate indeed.

Many proofs of the doctrine advanced in the course of the Observations, which I have fortunately collected in a very extensive practice, since these were near ready for the press, obliged me to add a Third Part, that I trust will require no apology for giving the reader a little further trouble. Mine, which has been far greater, will be sufficiently compensated, should they happily impress the mind with conviction of their importance.

The characters made use of in the Meteorological Observations, are as follow :

C H A R A C T E R S.

—, denotes a calm; *, light airs; **, fresh breezes; *** , gales; **** , strong gales; *v* variable; *f t b*, from, to, by, *viz.* from NW to SW by S; *p*, full, and *n*, new moon; *c*, clear; *cl*, cloudy; *ch*, changeable; *h*, hazy; *f*, foggy; *o*, light showers; *o o*, showers; *o o o*, hard showers; *o o o o*, heavy rain; *d*, dew; *h*, hail; *s*, snow; *z*, thunder; *l*, lightning; *f*, frost.

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I N T R O -

INTRODUCTION.

IT is the opinion of some gentlemen, who have read my Physical Journal, that the limits, within which it was kept, are too confined to render it an object of general attention, or use—How far this opinion is well or ill founded, time will shew—Should mankind be disposed to treat it harshly, all that I might urge in its favour would fail to recommend it—But when the extent of an African and West India voyage, and how frequently this was performed, are duly considered; when the great affinity of the diseases of all hot climates, which comprehend no trivial space; and when the little difference which probably can be requisite in the treatment of such diseases are well
B attended

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attended to, I imagine this opinion will lose much of its force, as well in speculation, as in practice—more especially should the idea of the great similarity there is in all fevers (not arising from local inflammation) which is fortunately begun to be received by some of the most eminent physicians, be generally adopted.† Certain I am, that all the observations that I have hitherto made of fevers, afford the strongest testimony to prove this doctrine, as may be seen by comparing the fevers described in the Physical Journal, with the description of the ship fever, in the following Observations.‡ Doctor Millar advances much in favour of the Journal when he asserts, that bark will cure *all the ideal variety of fevers*, and thinks a comparative view of the methods of the management of the African and West Indian fever, with the treatment

† See Dr. Lind's new edition on fevers and infection, cap. 2. sect. 2. p. 264, 265. and Dr. Millar's observations of the prevailing diseases in Great Britain, particularly in the army and navy; together with a review of that of other countries, and arithmetical calculations of the comparative success of different methods of cure.

‡ Part I. chap. I. sect. I.

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of the ship fever, and the different success of those methods, *as stated with fidelity in our Observations on this fever*, confirm his doctrine.

Be the fate of the Journal as it may, such objections are not applicable to these Observations on the ship fever, or infection; an evil confined to no particular country or climate, but extending its fatal effects as far as we have either society or commerce—An evil wherein the interests of mankind are involved.—He therefore who labours to promulgate this fact, to detect the public evil under all its insidious appearances, and to render it less destructive than it has too often proved hitherto, is, at least, a well-wisher to society.

In stating those Observations I have not formed or advanced any hypothesis respecting infection, but from experience have endeavoured to establish some positions which, if attended to, may be useful in guarding against, and checking that enormous source of diseases and death, as well as in curing the ship fever.—A close attention to the fever for

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about two years on board of his Majesty's late ship the Juno, employed in America ; † visitations of hospital, and other ships ; besides private practice, have furnished me with this experience.—And nothing can be more evident to me, than that the fever was every where essentially the same—the difference of the symptoms arising merely from the constitution of the patient ; from the accidental state of the body when it was infected ; from the various circumstances they unavoidably then lived under, more especially the climate and season ; or from the different methods in which they were treated.

The positions which I endeavour to establish are,

First, That fevers are often infectious on board of ships, and likewise on shore, when there is no suspicion of infection—from whence great mischief arises to society.

Second, That the ship fever may be detected by duly attending to the following Ob-

† And on board of the Edgar two years.

servations

servations in general, and more particularly by those symptoms which we have termed diagnostic; and the description in part 2. chap. 1. sect. 1.

Third, That Peruvian bark far excels all other remedies, hitherto extolled for curing this fever.

Whoever attempts to introduce the least innovation into the practice of a science professed and practised by men who, from their indefatigable studies to serve mankind, have become eminent, must reflect that he will require a series of well grounded facts, if not demonstration to support him.—Should he be a young practitioner who designs the innovation, it will become him to act with good manners, and with deference to authority stamped with the public sanction unless such authority can be proved to be contradictory to experience—the only test to be regarded in the practice of physic. Knowing therefore, that in a work of such importance, hear-say evidence, or an *ipse dixit* will have little weight, I have, as far as it was practicable, introduced arithmetical calculations; and where those

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those could have no place, I have confined myself to a plain relation of facts.

But before we proceed, it is necessary to inform the reader, that *infection*, throughout the following Observations, applies to the jail, the hospital, and the ship fever only—and as we are well convinced that these essentially are one and the same fever, and are cured by the same remedy, bark, we shall use the term *ship fever* only.

The first position which I shall endeavour to establish, is, That fevers are often infectious on board of ships, and likewise on shore when there is no suspicion of infection—from whence great mischief arises to society.

Infectious diseases have in all countries, and in all ages, been the greatest pest with which mankind were ever visited—and the ship fever alone has heretofore been more fatal to the fleets and armies of this country, particularly in time of war, from obvious reasons, than the sword, and all other diseases whatever—during the calamity of war, we are tolerably well informed of the numbers slain

slain and wounded ; but, from political motives I suppose, we hear nothing of the thousands who die of the ship fever, or other diseases. I am of opinion however, that it would be far more beneficial to mankind to have an exact register published of all the seamen and soldiers who die in the service of this country, whether in times of war or peace—setting forth the diseases of which they died, together with a concise, but faithful account of the manner in which they were treated by the physicians or surgeons—a scheme that might perhaps be easily extended to civil society, by which the diligent and judicious practitioners would soon be distinguished from the obstinate or indolent theorists—The ignorant would be detected and taught to improve, or be compelled by the magistrate to withdraw from the practice of a science, for which they were visibly unqualified ; while those, who by an unwearied attention to diseases, and the effects of remedies, modestly displayed their skill and judgment, would receive the tribute of a grateful people : the young physician or surgeon would not then dare to set out in practice on any theoretick authority whatever ; but would be obliged

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obliged to make that method the rule of his practice, which had hitherto been found by experience to be the most successful—a laudable spirit of emulation to excel in the practice of physick would universally prevail, instead of an ambition to establish such theories as are now forced upon us—in God's name let mere theory be expelled from the practice of a science, upon the success of which the interest and lives of mankind depend.

The obvious consequences of the ship fever not being suspected to be contagious, when it is making great devastation in a fleet, will be a neglect of precautions to prevent the infection from spreading, and checking it in the bud.

On the 26th of November 1776,* sixty supernumeraries were sent from the Rainbow on board of the Juno, after the convalescents of the latter had been sent on shore to sick quarters; and great pains had been taken to sweeten the ship by washing, good fires and smoking. Eight of these Rainbows complained to

* See the diary of the sick list.

me as soon as they came on board, whom I found had the fever; and upon representing the fact to captain Dalrymple, he immediately got an order to return them on board the Rainbow, which was done next morning. The surgeon of the Rainbow, who was a gentleman of good sense, did not suspect that any other thing was the matter with them, or the rest of the supernumeraries which they had on board, but colds—and I have since been well informed, that the Rainbow's people were sickly soon after.

On the 1st of March 1778, when the Haerlem came into Cape Cod bay with the transports, I was sent on board to visit the lieutenant commanding her, who was reported sick to captain Dalrymple: I found him, the surgeon, two midshipmen, the lieutenant's clerk, and three or four men and a boy, very ill of fevers. The surgeon, so far from suspecting that the fever proceeded from infection, was much surprised when I asked where, or by what means they caught it; and on my enquiring if they had had any sick passengers, or prisoners on board, the lieutenant told me that he received a few prisoners on board from the pri-

son ship at Rhode island before he sailed, who were not well, to bring home to the Vineyard, as an inducement to the inhabitants to allow some of their pilots to come on board to pilot the transports through the shoals. Thus I traced the infection back to the prison ship, at Rhode island, where I knew it had been very virulent and fatal for a considerable time.

The Haerlem being immediately ordered on a particular service, the lieutenant and the rest of the sick were removed on board of a transport, and the surgeon of the Cerberus was directed to take care of them, except the lieutenant, who wished I might visit him as I had seen him first. I endeavoured several days to persuade the surgeon of the Cerberus, that it was the ship fever of which those men were ill; but he would not believe me until I asked him if he had not perceived petechiæ on them; and he told me he had not looked for any, but that he would go and examine some of them immediately; and returning soon, he exclaimed, that it was the true *Febris Carceraria*; and could now account for his mate's being ill who attended them, and for
some

some slight complaint of his own, and immediately prescribed bark.

The agent for the transports frequently visited on board the Haerlem, between Rhode Island and Cape Cod, and carried his servant (a boy) with him; the boy by that means caught the infection and died, without his master, or any one on board the transport suspecting the cause. The agent himself was seized with the fever, and was very ill under my care.

When commanders neither know the consequence of admitting sick on board their ships, nor will pay any regard to their surgeons, when they dissuade them from receiving them, obstinacy is a mild appellation for their conduct. I belonged to a ship in a very healthy station, on board of which a man, ill of a fever (who died in a few days) was admitted out of compassion, much against my inclination and advice; the consequence of admitting him was, our ship immediately became sickly, and continued so all the time I belonged to her; and I have been
in-

informed by the surgeon who succeeded me, that her men were sickly while she continued in commission, which was more than a year after I left her.

Such too frequently have been the consequence of fevers, when not considered as infectious. When the fever has been raging with great violence on board different ships, I have heard their respective surgeons say, that there was a bad, slow, inflammatory, an irregular or putrid fever running through their ships; even these gentlemen never once supposed, nor would believe it when they were told, that the fever was infectious. It is therefore the less surprizing, that such gentlemen can give no satisfactory reason why some ships are very sickly, while others upon the same service, and labouring under the same hardships, respecting duty, provisions and cloaths, are perfectly healthy.—This was remarkably evident on board the ships employed in America; for such of them as happened to be so unfortunate as to get prisoners on board, either from prisons, or prison-ships, how healthy soever they were before, were sure
to

to become sickly. * Nor did any of the transports who had sick troops on board, escape the infection. Yet notwithstanding so many glaring proofs of *infection*, *that idea* was entertained on board of very few ships indeed.

I visited some men on board of a transport at Sandy Hook, whom I found very ill of the ship-fever; and upon enquiry of the master, who was then, and had been long ill himself of the fever, I was informed that both he and his men had been very healthy until sick troops came on board, and that they had never been healthy afterwards.

Were I to recapitulate all the instances which I could adduce on this subject, it would enlarge the bulk of these Observations beyond my design. I shall therefore only add two more, one of which I met with in private practice, and the other at Brookline Hospital on Long Island, near New York.

* Viz. Eagle, Diamond, Lark, Juno, Brune, Orpheus, Emerald, Apollo, Unicorn, and many others.

I was

I was desired by a friend, an officer of the navy, then in London, to visit his servant, a young man who had lately come from sea with him; he was bad, and had an apothecary attending him——I found him very ill of the ship fever. I enquired of the nurse what the apothecary said of him, and she told me that he thought it was only cold he had got, and that he would be well in a few days. The medicine which he prescribed, apparently, was saline mixture, with perhaps, some antimonial preparation. I desired the nurse to tell the gentleman, that I would meet him next morning; but unluckily he got before me, and told the nurse, who delivered the message I left, that he could not possibly wait for me, but that he had the pleasure to inform me by her, the patient was much better, after having *sweated* all night, and that he would soon be well. On the contrary, I found him worse; and suspecting from his appearance, that he had been more delirious in the night, than on any preceding night, I asked the nurse if he had not raved for some nights past: “To be sure,” she said, “he had talked nonsense for several nights past, but he talked more last night

night than he ever did before." I advised his master to get him immediately into an hospital, which he did; and there he recovered, with great difficulty, by an abscess forming on his hip, as the boy himself told me some months after; and he was then so much emaciated, that I scarce knew him.—He could not recollect that I had ever seen him during his illness.

When the *Juno* arrived at New York, on the first of January, 1777, judging it my duty, I reported on the sick list, (which was to be delivered to the commander in chief) that we had an infectious fever on board. The physician of the hospital being informed of this, prepared to receive fifteen men, who, 'tis true, were chiefly in a convalescent state; and they were sent next day.* The change of diet and air, which they took care to enjoy by strolling about, had so happy an effect on many of them, that when I went to the hospital, the physician told me, he was surprized that I could report an

* More were sent afterwards, as will appear in the Diary.

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an infectious fever being on board the Juno, when there was nothing the matter with the men whom I had sent on shore ; and if Lord Howe should be informed of it, he was certain that he would at least be highly displeased. In consequence of his inattention, four of those fifteen men, who, as he imagined, ailed nothing, died ; and others, who were sent afterwards, from want of proper attendance, run delirious about the hospital in the night. What the further consequences of such inattention was, or might have been in the hospital, the reader will readily conjecture.

Those *unsuspected instances* of infection, are not introduced from any desire to censure the character and memory of a respectable gentleman, far less to enjoy a triumph by exposing the errors of others——The design is, to put young practitioners on their guard, and, if possible, to prevent the fatal effects of such a general inattention hereafter.

And I hope it will be admitted, that however great the respect we owe to the merits
and

and characters of individuals, the regard which is due to the interest of society is still far greater. These considerations, I am hopeful, will shelter me from censure, for stating important facts, for the publick interest. No other motive has induced me to undertake this second laborious and unprofitable task—a task, however, which I may venture to say, the young and unexperienced practitioners who have come lately, and are daily entering into the service, will particularly profit by, if they condescend to pay due attention to it; and as to the opinion of the more experienced gentlemen of the profession, whose candour and generosity I have already experienced, in their approbation of my Physical Journal, it is respectfully submitted.—But to return to the subject.

Certain it is, that the ship fever appears so insidiously at times, that men of great physical knowledge have mistaken it for very slight complaints, and have thus been led to suppose that the sick lists, on board of ships where the fever was, were designedly increased, by adding the skulkers*, and those who

* Men who get out of the way when work is carrying on, or make idle complaints to the surgeon, to be protected from doing duty.

had very trifling ailments, at a time when many of those men who were thought to have very slight complaints, were so ill that they died of it soon after. Gentlemen who are employed to examine the sick on board the ships, or on shore, ought therefore to be on their guard, and to execute such an important duty without any prepossession or bias whatever, and with that impartiality and benevolence, which distinguish the man of skill, candour and feeling.

Having now endeavoured to prove the first position, it will not perhaps be thought foreign to the purpose, to enquire into the causes why such a general defect has existed so long in the practice of physick, as we have shown.

1st. They who visit or attend fever-patients, know not that they were infected, only because they have not taken the trouble to advert or enquire by what means their patients were infected. It is the less surprising, therefore, when other gentlemen who have taken the trouble to trace the disease to its source, and inform them of it, that many of

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of them answer to the following purpose :
 “ Infection, the devil ! how should we get infection ? This is a fever of the inflammatory kind, but accompanied with malignancy and putridity, with very little or no remission.”

2d. Many of the profession think, that by infection, is necessarily implied, a disease so deleterious in its nature, that, like the pestilence of Athens, it ought to sweep away suddenly almost every person whom it attacks ; or that no other diseases are infectious, except the meazles, small pox, and plague. But attention to the ship fever will convince them of those errors. The plague is universally thought the most dreadful and destructive of all diseases ; but by what appellation are we to distinguish a disease whereof about sixty men die * in a very few weeks, on board of a ship, which ship's full compliment is two hundred and forty, widows * men included ?

* This happened on board the Venus.

* A certain number bore for wages, which are appropriated to the fund to pension widows, on board of every ship in the navy.

3d. Scepticism, I am of opinion, has been as baneful in the practice of physick as in any of the other sciences; I would not, however, have it understood that I condemn gentlemen as scepticks for not implicitly believing the *ipse dixit* of any person; but they may deservedly be called so who pay no regard to the opinion or writings of them who have had opportunities of becoming acquainted with the diseases in question, and have been successful in the management of them.

Of those scepticks there are various classes—some men are become so, from having with great trouble framed their own darling hypothesis, which, as if one of their offspring, they are determined to defend and support at all hazards; or, what is equally as bad, they may have already adopted the opinion, and pinned their physical faith on the sleeve of some author or practitioner, whom they think the only Esculapius to be consulted in all diseases whatever. “Would you,” say they, “presume to deviate in your opinion or practice from the great Dr. ———? though at the same time, the person thus reprobated, has probably had far more experience in the diseases under

der

der consideration, than the Esculapius himself; and this very Esculapius, after the truth is known, has perhaps in that instance rendered himself eminent by having communicated to print what with indefatigable study he had only spun out and wove in his own prolific brain—a most elegant inexplicable theory of the diseases, in the texture of which, to be sure, 'tis impossible he could have erred, or in the suitable rules which he has laid down for the cure!

There are other men whom it may not suit to confess that they are convinced; their situation and inclination may have already obliged them to have made up and published their opinion of the diseases, and how erroneous so ever their opinion was, demonstration itself would often, I fear, come too late for them to acknowledge their conviction.

There is yet another class of men less pardonable than any of the former, because tho' by their situation they have had the power to do good, they have for particular ends, best known to themselves, exerted it to intimidate, nay even to injure and oppress those who

who have had virtue and resolution to advance a doctrine contrary to the received opinion, an opinion which theory alone gave birth to, and which weakness and indolence have fostered. Of such men, I cannot help saying what the patriarch said of old, "My soul come not thou into their secret, unto their assembly mine honour be not thou united!" * We now proceed to endeavour to establish

The second position, namely, That the ship fever may be detected by duly attending to the following observations in general, and more particularly by those symptoms which we have termed diagnostic and the description in part II. chap. I. sect. I.

It is already admitted that the ship fever has sometimes been so insidious as to deceive men of great skill; but we are of opinion that this will very seldom happen if the following circumstances and symptoms be carefully attended to.

1st. Let it be a rule when one, two, or more patients complain of a fever, to interro-

* Genesis, chap. ver. .

gate them very strictly—whether the symptoms be more or less severe matters not, the precaution is equally necessary; examine them closely if they have been in a place where there were people sick, or in company with any people who had been visiting, or attending sick: should your patient answer in the affirmative there will be great reason to suspect that they have been infected, and suitable methods to stifle it in embryo, or to render it as mild as possible, cannot be too speedily adopted: though they answer in the negative, the symptoms are to be the more diligently considered.

2d. Of all the symptoms of the ship fever taken separately, the countenance is by far the most striking index, or diagnostick, which daily becomes more and more obvious; and the more obvious, or the more diseased, it is, the greater is the danger †. In it there is *something a je ne sais quoi* which expresses more disease than either the patient complains of, or can be conveyed in words.—To say that

* Dr. Lind is of the same opinion. See his Dissertation on Fevers and Infection, chap. I. sect. I. p. 193—a note.

the countenance is greatly dejected or depressed is not enough—much more is visible to a person who carefully examines it; at least much more is very obvious to any one who is acquainted with the fever. *It* therefore ought to be well studied.

3d. Rigors, or chilliness, or alternate chills and heats, almost constantly precede the fever.

4th. Very few patients complain without mentioning head-ach.

5th. Sickness at stomach, or reaching are very early complained of.

6th. Universal pains; or as the sick express themselves, pains all over them,—or pains in all their bones or joints, but especially in the loins or back are concomitants of the fever. Those are the symptoms which the sick first complain of. It is true I might mention others which often accompany the fever from its commencement, but they are not uniformly primitive symptoms, like the preceding—therefore, whenever the people on board
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of a ship begin to fall down, and complain of having been seized with Rigor ; or Chilliness ; or alternate Chills and Heats ;— Head-ach ;—Sickness at Stomach or Retching ;— universal Pains—or, as they say, Pains all over them—or Pains in all their Bones, or Joints ; but especially in their Loins or Backs ;—and if the countenance is at the same time diseased, whatever be the other symptoms accompanying those, I would not hesitate a moment to assert that a most virulent infection had got amongst them.

If it be further observable in the course of the fever, that they who attend, or have communication with the sick, are seized with similar symptoms ;—and if the sick, though now arrived at a convalescent state, are not only very long in recovering perfectly ; but from the slightest cause are found liable to relapse—they must have very little discernment who doubt of there being a most virulent infection on board.

But it may be said that those symptoms which I have laid down as the diagnosticks of the ship-fever, are perfectly similar to those

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which

which introduce the eruptive fever of the small-pox and measles*—the state of the countenance excepted. Were this the general opinion of practitioners, it would fully answer my present purpose;—as those symptoms would be acknowledged to be the concomitants of infectious diseases; and as surgeons when they are once aware that there is infection on board, will not only be soon relieved of their doubts, should they have any, whether it is not the small-pox or measles; but will be instructed to exert themselves to render the infection as mild as circumstances will admit † — nothing else being our present intention.

However, it is not to be understood that the picture of the ship-fever on its first attack, which is here laid before the reader, comprehends every feature which it puts on,—I say

* This is not strictly the Case.

† For directions on this important subject, we refer the reader to Dr. Lind's valuable Dissertation on Fevers and Infection, chap. I. sect. V.—chap. IV. sect. IV.—and in Dr. Miller's Observations on the Management of the prevailing Diseases in Great-Britain,---from page 267 to 293.

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it is intended to represent the most general, or the strongest features only.—A more minute portraiture, or description is set forth in part II. chap. I. sect. II.

7th. We ought now to endeavour to establish the third position, namely, That bark far excels all other medicines extolled, for curing the ship-fever; and though that will more properly be done, when we come to the treatment of the fever, and to show the different methods which circumstances obliged us to adopt in the management of it; we beg the reader's indulgence while we insert one or two remarks respecting the administration of bark to cure fevers.

1st. I am fully persuaded that bark has not hitherto been administered upon any *principle* by practitioners in general to cure a fever.

They do not prescribe it in such a manner as to show either their own confidence that it will cure their patients; or that they judge it the most proper medicine when they do

prescribe it—therefore, they do it, as they express, themselves, *with caution*; and when a few scruples or drachms have been given before the patient dies—though as many ounces were requisite to recover him—they say “the bark did not answer in that case;” or, “that it failed.” But, should the patient still live, and not recover speedily, the bark is changed for some other medicine—instead of their increasing the doses of it, and repeating them oftner.

I, therefore, beg leave to ask such practitioners in physic a few plain questions: 1st. When they want to vomit, or to purge their patients, do they expect to effect those evacuations unless they prescribe a sufficient dose of ipecacuan and jalap? * 2d. Can they precisely ascertain a proper dose of either for a patient whose constitution they are strangers to?

3d. When either the dose of the ipecacuan or jalap which they prescribed, produced

* We make choice of these only because they are the most common medicines.

the intended effect, would they say that these medicines failed to vomit and purge?

4th. On the contrary, would they not confess the doses were too small which they ordered; and would they not repeat those medicines in certain proportions until they operated?

But supposing those gentlemen produced a case or two of a fever, fully and fairly stated, which the bark failed to cure; could not I relate instances where jalap would not purge, nor ipecacuan vomit?—And should they doubt the quality of the jalap and ipecacuan which was given; might not I with equal propriety doubt the goodness of the bark which they administered?

The propositions are clear; and the following inference is obvious and just.—Laying it down as an axiom that bark will as certainly cure the fever as ipecacuan will operate by vomiting, and jalap by stools—does it not follow, that to cure the fever, the quantity of bark must be as fully proportioned as
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the doses of ipecacuan and jalap in their respective cases?

Again, as in these cases it is difficult to ascertain the doses until the constitution is known—is it any wonder that it is not yet ascertained how much bark will cure the fever until the patient is recovered? *

Whoever then expects to cure fevers with bark, and administers it upon no principle or upon any other than—*That the quantity to be given must be proportioned to the case; and that the requisite quantity can only be known when the patient is recovered*—will often have cause to exclaim “That the bark failed him”—a sort of cant which I believe has occasioned the loss of thousands of men, by its being passed from one to another on the simple foundation we have mentioned.

* I do not think it ever can be fully ascertained any other way---though we may by a proper use of the bark arrive at as great a certainty in time---what the requisite quantity of it, is; as for any other medicine for a particular purpose.---Is it yet ascertained how much mercury will cure a man of the venereal disease?

Another

Another circumstance which strikes me forcibly respecting the administration of bark for a fever, is, that practitioners do not prescribe it early enough to be speedily productive of success—supposing they gave it liberally when they do begin to give it—which is seldom the case.

I cannot comprehend what could introduce the precept, and support it so long and so generally, to delay giving the bark until there is a remission—indeed many wait for an intermission; and as that seldom happens in the ship-fever, they often loose their patients by fruitless expectations and endeavours to effect it.—Upon whatever authority this dangerous precept was established, or how venerable soever their names who have maintained it, I know from *experience* it is one of the most fatal precepts that ever was inculcated in the practice of physic. For the proofs of this assertion we must refer the reader to part II. and to the appendix.

OBSERVATIONS, &c.

PART I.

CHAP. I.

SECT. I.

MONTHLY REVIEW OF THE SICK LIST;

From APRIL 4, to AUGUST 31, 1776.

WHEN we sailed on the 4th of April from St. Helen's, on our voyage to Quebec, the patients on the sick list were, one with fever; one with eruptions; one with itch; one with inflammation; and three with foul ulcers.

The wind varied much and often, tho' in general it was between the Northward and Eastward, until the 12th, when it got round to ESE. From thence it veered to the SW. On the 15th

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it was from South to East; on the 16th, from NE *b* N to NNW, varying to N *b* E, 'till the 20th, when it came to SW, and varied between that and N *b* E, until the 27th. It then varied from ENE to SSE: on the 28th, and afterwards, got back to the N and NW, still varying. On the 8th, 9th, 15th, 16th, 25th, it blew gales; the 19th and 20th it was sometimes calm. The 11th, 12th, 15th, 17th, 21st, 22d, 23d, 24th, light showers; the 25th, showers; 28th, light showers. The atmosphere was generally cloudy, sometimes clear, but seldom foggy, except when we crossed the banks of Newfoundland. The moon was full the day we sailed, and changed the 18th. The mean height of the thermometer was about 57 degrees.

The sick list did not vary much, but rather increased regularly until the 23d—decreased until the 27th, when it increased; and then decreased rather, to the end of the month. The number who were added, were thirty with fever; two with scurvy; one with rheumatism; one with gout; two, hectic; one with a cough; one with hæmorrhoides; one with eruptions; four with itch; one with a scald; two with strains; three with contusions; one with a fracture; three with inflammations; one with a swelling of the knee; two with abscesses; one with excoriation; and five with ulcers.—In all, 62; including those who were on the list the day we sailed.

I sent

I sent three fever patients to the hospital in the month of March. Amongst the fever patients are included those complaints which are vulgarly called colds; being accompanied with symptoms of fever: a number of those were slight, and easily carried off; but were so classed to avoid multiplying diseases, or columns in the general table. This is to be understood of all such cases until the month of September begins; only we shall take notice in the month of August of such as had severer attacks of fever, the symptoms which accompanied it, and the manner in which it was treated. Of other diseases, it is not my intention to treat.

M A Y.

The wind was as variable as in the preceding month, but much more Westerly, and always moderate, except the 10th, gales. On the 1st, 2d, 14th, 18th, 19th, 20th, 22d, and 28th, at times it was calm. We had heavy dews the 1st and 2d; 4th and 5th, light showers with snow; 7th, snow; 8th, light showers; 9th, showers; 11th, 12th, 15th, 16th, light showers; 18th, snow; 21, showers; 23d and 25th, light showers. The atmosphere was often very foggy, and wet every thing, particularly in the beginning of the month. Sometimes it was very
hazy,

hazy, at others cloudy, and seldom clear.—The moon was full the third, and changed the 17th. The mean height of the thermometer was about 47 deg. It was often very cold in St. Laurence's river.

The number of sick first increased a little, then decreased somewhat, but varying little until the 12th, when it increased, and rather continued doing so until the middle of the month, then decreased to the 20th. From that time it varied very little until the 27th, when it began to decrease, and altered very little from the 28th to the end.—On the 8th grogg was begun to be served.—At the end of the month we arrived at Quebec.

The patients added to the sick list this month were, forty with fevers; one with quinsy; one with plethora; one with a dysentery; three with the belly-ache; one with a singultus; one with deafness; one with a nephritis; one with hæmorrhoides; two with eruptions; one with itch; seven with contusions; one, wounded; two with inflammations; one with a swelling of the knee; and eight with abscesses:—in all, 73.

On the 24th, a boy died of a fever, which proceeded from a fracture in the neck of the os femoris, and ended in a tetanus, or locked jaw. The day before he died, I was informed, he had hurt himself at play before he was taken ill. When he came to me first, although he complained of a pain about the superior and anterior part of the

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the thigh, I dropt the idea that he had hurt it, until the tetanus came on; because he firmly denied, from his first complaining, that he had received any hurt.

Nothing further material happened in the course of the month.

J U N E.

The 5th and 6th the wind varied; as it did also on the 12th, 17th, 19th, and 20th; but was then chiefly SW.—Otherwise it was NE, or ENE. Then it was SW or Westerly with calms, until the 25th, and from that time varied until the end of the month; and all along, excepting the 13th and 14th, gales, it was light airs or fresh breezes. The 1st and 4th, light showers; 6th, showers with thunder; 13th, 14th, 16th, 17th, 18th, and 19th, light showers, with *t* and *l*; 20th, light showers, with *b t* and *l*; 22d, showers, *b t l*; 23d, showers, *t l*; 24th, 26th, 28th, 29th, light showers, *t l*. The atmosphere was often clear, especially in the beginning, but was more generally cloudy throughout the month. The 3d the moon was full, and changed the 16th.

Excepting the first day, the sick list rather decreased until the 8th, when it increased, and the following patients were sent to the hospital;—one with a fever (a weak man); one with the
scurvy;

scurvy; one with the gout; two with coughs; one with the epilepsy; one with eruption; and three with ulcers. It increased until the 12th, decreased until the 15th, increased until the 18th, varied little until the 27th, and decreased again.

The patients who complained this month were, sixteen of fevers; one of a pleurisy; five of dysentery; two of the scurvy; one of the rheumatism; two of the gout; one with hæmorrhage; two with coughs; one with epilepsy; one with itch; one with a rupture; eight with contusions; and one of an excoriation:—42 in all.

The ship's company were served fresh beef on Saturdays and Sundays; and spruce beer after the 8th.—The hospital was a shocking house, and under a very high hill, close to the river on the Point Levi side. Before we arrived, they were taken into the general army hospital, and had been there all the winter.—On the 24th, the pleuritic patient was sent to the hospital in a convalescent state; and seven of them who were sent on the 8th, returned on board; and on the 25th I applied to have them invalided. Two of the fever patients were sent small-pox patients to the hospital: one of them, who was seized several days before with the symptoms which commonly appear before the eruption, had seen a man ill of the small-pox at the hospital, who died there; but they are classed fever patients, because it was uncertain if it was the small-pox.—Thirteen in all were sent to the hospital.

On

On the 8th the patient died of the singultus.

Every thing at market was very dear.—Scarce any fort of vegetables.

J U L Y.

Excepting the 2d and 16th, when it was ENE, the wind varied backwards and forwards from S b W round to NW, until the 18th with moderate gales; from the 9th to the 16th calms A.M. It then got round to the NE, 'till the 21st, when it varied, and was calm part of the day. It again came to SW, blowing moderately with little variation until the 29th; A.M. commonly calm, after which it was variable. 1st, light showers, *t l*; 2d, ditto, *l*; 4th, showers, *t l*; 5th, light showers; 7th, *l*; 9th, showers; 11th, 12th, ditto, *t l*; 16th, showers; 17th, light ditto; 21st, ditto, *t*; 22d, 24th, 26th, 28th, light showers; 29th, hard showers; 31st, light ditto. The atmosphere was cloudy and clear alternately, but not quite regularly so every other day. The moon was full the 1st, changed the 15th, and full the 30th. The mean height of the thermometer was about 66 deg.—It was lower in the city at noon, than in the lower town, or on board of our ship.

The sick list varied little, but increased towards the middle of the month; from which time it decreased until the 26th, when it increased;

creased; decreased for two days again, and increased to the end.

The patients who complained this month were, seven of fevers; one of a dysentery; one of the belly-ach; three of the scurvy; two of rheumatism; one of a sore throat; four of a cough; one of the epilepsy; one of a strain; five of contusions; one of a fracture; one of a wound; one of an inflammation; two of abscesses; and one of an ulcer:—32 in all. So that as the weather became mild and warm, the sick list decreased.—But this subject will be more fully discussed next month.

We had some marines sent on board a transport to guard prisoners.—Every thing ashore at market, except vegetables, (which were still scarce) became much cheaper. The scurvy had hitherto been the most prevalent disease in the hospital, since it was established. The Triton sent a number of scorbutic patients to it; but the men having got spirits to buy at the Brunswick camp, which was on the top of the hill, lived irregular. Very few were seized with small-pox ashore. I sent two scorbutic patients to the hospital, one with small-pox, and one with fever.—Towards the end of the month, the Pearl returned from a cruize in the gulph, with many of the people scorbutic: they had blowing foggy weather. We were now served fresh beef three times a week.

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The Brunswick troops had a very mortal fever among them; the following short account of it I had from the surgeon general to the garrison.

“ They were generally bad three days before they were brought to the hospital to him; that they were then delirious, with their tongues black and chopt, and their teeth covered with fordes; that they had petechiæ, and a flux on them, and that they generally died within 48 hours after their admission. That he observed no remission of the fever; that their pulses never indicated a strong fever, nor even danger; but all who were so ill at their admission as not to be able to put out their tongues to show them, died. That he ordered them, as soon as they were admitted, to be well washed in warm water and vinegar, and the bark to be given them freely with Port wine. And concluded with saying, (upon my enquiry if he had made use of blisters) that he did not approve of them in fevers with petechiæ; but that he perhaps might have applied them, had the patients been brought to the hospital when they were first taken ill.”

AUGUST.

The 1st and 2d the wind was variable, but Easterly; from the 3d to the 8th, it was from WSW to SW, varying a great deal; but still more from the 8th to the 11th, when it came to

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the Eastward, and continued so until the 14th; it then veered to the SW, continued there until the 26th, varying little the last six or seven days. Now it veered from WNW to ENE, and continued there, with little variation, until the last day of the month, when it got to the WSW.—All the month was moderate, and on the 2d, 14th, 15th, 21st, 30th, and 31st, at times calm; 2d, 3d, light showers, *t l*; 7th, 8th, 9th, 13th, light showers; 16th, 21st, showers, *t l*; 25th, light showers. Until the 21st, the atmosphere was very seldom otherwise than clear; but the 18th was foggy and hazy; from that time until the end, it was almost cloudy or hazy; 26th and 28th, sometimes foggy. The moon was new the 14th, and full the 29th. The mean height of the thermometer was 65 deg. But it is to be observed, that we left Quebec the 23d, and that the thermometer became gradually lower as we got down the river, so that in eight days it was 9 deg. lower than it was the day we left Quebec: it continued lower while we were at Bique-island.

On the 5th, two of our men, one of the scurvy, (one of the marines that were on board the transport) the other with a fever, were sent to the hospital; and one with a cough on the 13th.—The list decreased until the 16th, when it increased, varied for two days, and decreased on the 19th, then continued without alteration until the 23d, when our four men came from the hospital; after

after which it varied until the end, but rather increased.

On the 13th, two of our men were invalided by a scurvy. We were served fresh beef every meat-day, some time before we left Quebec. The 26th we arrived at Bique-island, where our men were employed to cut wood for the ship's use,—and sailed from thence on the 31st.

The patients who were added to the list, were three with fevers, one with a head-ach, nine with dysenterick complaints, two with the belly-ach, one with the scurvy, one with the rheumatism, one consumptive or hectic patient, two with sore throats, three with coughs, one with deafness, one with giddiness, one with eruptions, one with a strain, one with a contusion, three with wounds, one with an inflammation, one with an abscess, and one with a furuncle:—in all 34.

S E C T. II.

Observations on the FEVER of the preceding Months.

WE are now come to a period wherein a very important change of the health of the ship's company began to appear; but before we proceed to show that change, it may not be improper to enumerate the symptoms of the fever

which hitherto affected the people, and to compare them with those which occurred in the ensuing months. However, it is not my intention to draw this comparison at present to minuteness, but to represent, if possible, the characteristic marks of the jail or ship fever, which are inserted in the introduction. The particular description of this fever will more properly follow the diary of the sick list and monthly review.

Many of those who in the preceding months are ranged as fever patients, were so slightly affected, as to bring them, not very improperly, within the vulgar denomination of colds; although, as they had all at least *some* feverish symptoms, I chose to class them as fevers, to avoid the multiplying of columns of diseases in the tables.

The symptoms of such patients were mild intermitting complaints. The pulse was very different in different patients; thirsts, loathing of food, sickness at the stomach, head-ach, cough, sore throat, hoarseness, acute pains of the sides, pain of the back, and in all their bones, (as they express themselves) or universal pains, straitness about the breast, griping complaints, deafness accompanying a sore throat, (tho' this was very seldom) giddiness, especially in the month of May, and constipations.

I thought it necessary to take away blood in some cases only. Gentle evacuations by vomit
and

and stool, promoting a moderate diaphoresis with effence of antimony or tartar emetic, together with opium, or tinct. theb. sometimes; bolusses of sperma-ceti and nitre, or the oily mixture, repeated as there was occasion, with diluting drink, and the volatile liniment applied to the throat, carried their complaints off in a few days.

Although the preceding cases were by far the greater number of the fever patients, yet many had the fever in a severer manner, as may be seen from the following symptoms and their duration, which are collected from *all their cases*, and enumerated daily. But neither the pleuritic case, nor two others (which were occasioned by putting a corpse into a coffin) are made mention of; though these two indeed were slight. It is not, therefore, to be understood that all the symptoms which are enumerated in any one day, occurred in a single case.

1. They were seized with chillness and rigors, succeeded by heats, thirst, and universal pains and uneasiness; pains in the side and back, difficulty of breathing, tightness about the throat, great hoarseness, cough, head-ach, giddiness, and sickness at the stomach; the pulse quick and full.

2. Some had very restless nights, without any remission from the head-ach, and a pain that went round in the direction of the diaphragm, especially with a cough, which was dry and urgent;

gent; and from pain of the breast that affected respiration, the countenance was flushed, and the eyes watered; remissions, paroxysms, costiveness, profuse sweats, the thirst continued, and the pulse was in some full and quick.

3. The paroxysms continued above twelve hours, with the symptoms as severe as in the first paroxysm; pains in the knees, and about the shoulders, a frequent cough, and scarce any expectoration; a little cough and pain only.

4. Tho' cool, there was a dry, urgent cough, with pain at the scrobiculus cordis; the remission continued six hours, and the next paroxysm eight. Stiffness about the eyes, weakness, the pain of the breast, and a head-ach from the cough, tho' expectoration began.

4. Profuse sweat the preceding night, a very teasing cough, weakness, with much pain about the breast, and either no expectoration, or a difficult one in some cases; no appetite, and the tongue was white.—On the 5th, of the slight fever, the pulse of a man who was subject to epilepsy, became quick and full, with giddiness and head-ach.

6. In the epileptic case there was a degree of stupor.—P.M. an accession of fever; the skin was hot and dry, the tongue dry; thirst, large quantities of urine, and languor; tho' some were recovering.

In the epileptic case, the paroxysm went off in the night, by a large quantity of urine, and a copious stool. PM. a paroxysm came on—an accession of fever happened after the patient had been in a recovering state for four days,—weakness—recovering slowly.

8. A difficult respiration, with cough—pain of the back and weakness—some recovering—the paroxysm of the epileptic case ended as the preceding. PM. a paroxysm came on.

9. Cough and hoarseness continued—the epileptic patient uncertain when the paroxysm left him, and complained of his back.

10. A free expectoration, and recovering—the epileptic man passed an indifferent night; his head ached and was giddy, and his mouth and tongue were foul.

11. The epileptic patient had shooting pains in his head at times, but was recovering.—One recovered.*

12. It was discovered that the epileptic patient was very lousy, tho' recovering.—Hoarseness continued—weakness.

13. It was a considerable time before he recovered any spirits, and he was invalided the 25th of June.

18. One patient continued weak, and was sent to the hospital; but this man had hurt his breast not long before by a fall.

* TIDFORD, by bark.

The Method of Cure.

It was not a general rule with me to let blood : —that depending solely on circumstances. A vomit was most commonly given at first ; and if the patient was bled, the vomit was given a few hours after, and from xxv. to xl. drops of Essent. Antimon. with refrigerating and diluting drink at night. Next morning an ounce of salts was given, and the essence of antimony repeated in the evening. After those moderate evacuations, (which were seldom repeated) I prescribed Cort. Peruv. $\mathfrak{z}\text{i}$ or $\mathfrak{z}\text{i}\mathfrak{ss}$ every hour, until the patient was out of danger ; and afterwards it was given less frequent, and at this time Elix. Vitr. was often joined with it. When I began to give the bark, I did not omit it for any exacerbatation of the symptoms.

C H A P. II.

S E C T. I.

A

D I A R Y

OF THE

W E A T H E R,

From SEPTEMBER 1, 1776, *until* JUNE 30, 1777.

D

Year, M. & Day.	Therm.	Latitude, or, different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1766 Die Sab. Sept: 1	60	Off Cape Moriere, 48°, 58"		19	v W ^b S *	cl	o
2	60	a & f		20	v SW ^b W *	cb	
3	63	Hills- burgh bay		21	v NW ^b W *	cb	
4	65			22	v SE ^b E **	cl	o
5	61½			23	v SE ^b E **	cl	
6	61	f		24	N v **	cb	o
7	63	Off Madame		25	N v —	c	
8	64	44 45	00° 51" W	26	f SSW t W ****	cl f	o o
9	61	Off Cape Breton, 45 23		27	NW **	c	
10	61½	44 42 a pm. Beaver- harbour.		28	f NW t SW **	cb	
11	63½			29	S **	f cl	o
12	60	a m. f		n m	NNW *	c	

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1776 Sept. 13	63 $\frac{1}{2}$	am. a Halifax 44° 45"	in 64° 35" W	1	SW v *	c	
14	65			2	v **	cl	
15	65			3	v W b S *	b f	o o
16	56			4	NW **	c	
17	56 $\frac{1}{2}$			5	NW **	cl	
18	63			6	v W *	ch	
19	64			7	v NNW *	c	
20	61			8	NW b N *	c	
21	64			9	S v *	cl	
22	65 $\frac{1}{2}$			10	v SW *	ch f c	o o
23	64 $\frac{1}{2}$			11	SSE *	ch f c	
24	57 $\frac{1}{2}$			12	NNW *	f	o o o
25	57 $\frac{1}{2}$			13	NNW * . * *	ch	o
26	59 $\frac{1}{2}$	f		14	W * *	c	

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	D's Age.	Winds.	Appear, of the Atmosph.	Rain, dew thunder, hail, snow &c.
1770 Sept 27	60 $\frac{1}{2}$	44° 06"		p	SW v **	cl	
28	55 $\frac{1}{2}$	43 29		16	NNW **	c	
29	55 $\frac{1}{2}$	43 30 a pm. Le Have		17	v ***	cb	
30	59			18	SSW **	f	
Oct. 1 Die Mart	59 $\frac{1}{2}$	am. f		19	NW *	c	
2	54	43 49		20	WNW v **	c	
3	56	42 50	00° 33" W male.	21	ESE v **	c	
4	58 $\frac{1}{2}$	42 36	01 09 W	22	ESE v **	f	o
5	58	42 42	01 01 W	23	ENE **	cb	
6	54 $\frac{1}{2}$	42 56	01 03 W	24	ENE v *	cb	o
7	59	43 15	01 56 W	25	E v **	cb	
8	58 $\frac{1}{2}$	43 03	01 49 W	26	SE v *	cb	
9	60 $\frac{1}{2}$	42 58	01 56 W	27	WSW *	cb	o

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew, thunder, hail, snow &c.
1776 Oct. 10	60	4° 07"	00° 05" E	28	NNW v * *	cb	o
11	53½	44 06	01 04 E	29	v NW * *	cl	o
12	49	44 09 pm. a Halifax		n pm	WSW * *	c	
13	53			1	WSW v * *	c	
14	53			2	WNW *	cl	b f
15	53			3	v * *	c	
16	54			4	SbE — *	cb	
17	58½			5	v * —	cl	o o
18	61½			6	SE v * *	cl	
19	58½	am. f		7	W v * *	cl	o
20	57½	Le Have 43 50		8	NW v * * * *	cl	
21	58½			9	SW v * * *	cl	
22	53			10	NWbW v * * *	cl	o

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made:	's Age	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1776 Oct. 23	52	am. f 44° 01" pm. a Le Have		11	WNW WSW v * *	b	
24	58			12	SW v * *	d	
25	61			13	SW v * *	f	o o t l
26	60	am. f 44 03		14	NE v *	cb	o
27	57½	43 10	00° 51" W	p am	NW v *	f	
28	55½	43 47 off Cape St. Mary		16	v * *	cb	o
29	53	43 46	01 10 W	17	NNW v * . * *	cb	o
30	47	Bay of Fundy pm. a		18	NNW v * . * *	d	
31	50			19	SW * * *	cb	o o
Nov. Die Ven.	58½			20	v NNW *	cb	o
2	52			21	WNW v * . * *	d	o o
3	46½	am. f		22	v NNW * . * *	d	f o

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1776 Nov. 4	46 $\frac{1}{2}$			23	v SW * . * *	cl	f
5	52	Off Anna- polis pm. a		24	SW v * . * *	cl	
6	56			25	SW * —	cl	
7	55 $\frac{1}{2}$	am. f		26	NE * . * *	f	
8	56	43° 15"		27	Nly v * *	b	
9	54	Cruising		28	v NNE *	b	
10	57	Off Segvin a		29	v W * —	b	
11	55	43 29	00° 51" E made	n am	ENE v * *	cb	
12	49 $\frac{1}{2}$	43 20		2	f NNE t NNW * *	cb	
13	50			3	NW v *	c	
14	49	43 58		4	NW v * *	c	
15	49 $\frac{1}{2}$	43 31		5	Nly v * —	cl	
16	50 $\frac{1}{2}$	43 48		6	SW v * . * *	c	

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1776 Nov. 17	48	43° 20"	.	7	<i>f</i> N b E <i>t</i> NW * *	<i>c</i>	
18	46½	42 54	01° 05" E made	8	Nly <i>v</i> *	<i>c</i>	
19	48½	43 00	02 40 E	9	Nly <i>v</i> *	<i>cl</i>	
20	52½	43 20		10	<i>v</i> *	<i>cl</i>	
21	55	43 32		11	SW <i>v</i> * . * *	<i>c</i>	
22	55½	Halifax am. a		12	SW <i>v</i> * . * *	<i>cl</i>	
23	57			13	SW *	<i>cl</i>	o
24	58			14	S b E <i>v</i> * —	<i>b</i>	o
25	57			15	SE *	<i>f</i>	
26	59			16	SW * *	<i>f</i>	
27	60			17	NNW * —	<i>f</i>	o
28	56½	pm. f & a		18	NW <i>v</i> * . * *	<i>cb</i>	o
29	52½			19	Wly *	<i>c</i>	
30	55			20	ESE <i>v</i> * *	<i>f</i>	o o

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1776 Dec. 1 Die Sab.	55			21	v * *	cl	o
2	51			22	WNW v * *	cl	f o
3	45			23	v NW *	cb	f o
4	53			24	SSW v * *	cb	o o
5	49			25	NW v * *	cl	
6	46 $\frac{1}{2}$	f		26	Nly v *	c	
7	51	43° 27"	00° 34" E made	27	Wly v * *	cl	
8	53 $\frac{1}{2}$	42 25	00 48 E	28	Wly v * *	cl	
9	51 $\frac{1}{2}$	41 24	00 21 E	29	NNW v * . * *	cl	
10	49	40 22	00 08 W	n	N v * * *	cl	o f b
11	55	39 12	00 42 W	1	NNW v * *	cb	o
12	57 $\frac{1}{2}$	39 17	02 50 W	2	SE v * * *	cl	o
13	61 $\frac{1}{2}$	38 34	03 30 W	3	NNE v * . * *	cl	
14	63	39 45	04 24 W	4	v W * * *	cl	o

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made.	's Age	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1776 Dec. 15	54 $\frac{1}{2}$	39° 13"	in 04° 13" W	5	NNW v * * *	cl	
16	59	39 15	04 36	6	W v * * *	cl	o o
17	56 $\frac{1}{2}$	38 53	05 41	7	NE v * *	cb	o
18	58	38 06	07 30	8	f W b N v NW b W * * *	cl	
19	55 $\frac{1}{2}$	37 45	07 02	9	N * * *	cl	f
20	57 $\frac{1}{2}$	37 34	08 12	10	N v * *	cl	o
21	63	39 15	09 04	11	SE v * * *	cl	o o l
22	56 $\frac{1}{2}$	39 52	08 36	12	v W b N * * *	cl	f o
23	53 $\frac{1}{2}$	40 01	08 07	13	NW b W v * *	cl	
24	51 $\frac{1}{2}$	38 34	08 56	14	Nly v * *	cb	
25	50	38 54	10 07	15	NE v * *	cl	
26	56	40 12	11 15	16	E b N v * * *	cl	o o
27	54	39 45	10 51	17	NW v *	cb	
28	51	39 35	11 20	18	NNW v * *	cl	f

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1776 Dec. 29	46 $\frac{1}{2}$	39° 30"	12° 57" W	19	N v **	cl	
30	50 $\frac{1}{2}$	Off Egg island.		20	SW v *	b	
31	50 $\frac{1}{2}$	Sandy Hook. pm. a		21	ENE v *	cl	
1777 Jan. 1 Die. Mer.	53	f N. York, a North River.		22	SE *	cl	
2	46 $\frac{1}{2}$			23	NW **	c	
3	42 $\frac{1}{2}$			24	NW *	cl	f
4	42 $\frac{1}{2}$			25	NWN **	cl	f
5	41 $\frac{1}{2}$			26	NW *	cl	f
6	41			27	NW *	c	f
7	38 $\frac{1}{2}$			28	NWN **	c	f
8	38			29	NWN **	cl	f
9	39			n am	WNW **	cl	f
10	36 25			2	NWW *	cl	f

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rair, dew thunder, hail, snow &c.
1777 Jan. 11	39			3	WNW <i>v</i> * *	<i>cl</i>	<i>f</i>
12	39			4	NW * *	<i>c</i>	<i>f</i>
13	39 $\frac{1}{2}$			5	NW * *	<i>c</i>	<i>f</i>
14	39 $\frac{1}{2}$			6	NW * *	<i>c</i>	<i>f</i>
15	41 $\frac{1}{2}$			7	WNW * *	<i>c</i>	<i>f</i>
16	48			8	SW * *	<i>b</i>	<i>f</i>
17	44			9	NW * *	<i>c</i>	<i>f</i>
18	42			10	NNW * *	<i>c</i>	<i>f</i>
19	43			11	S * *	<i>b</i>	<i>f</i>
20	46			12	NW SW * *	<i>cb</i>	
21	52 F			13	<i>f</i> SSW <i>t</i> NW *	<i>cb</i>	
22	46			14	N <i>v</i> *	<i>cl</i>	
23	45			15	<i>v</i> *	<i>b</i>	<i>f</i>
24	48 $\frac{1}{2}$			16	<i>v</i> * * * *	<i>cl</i>	o o

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777							
Jan. 25	52 $\frac{1}{2}$			17	W v *	cl	
26	52 $\frac{1}{2}$			18	NE v *	cl	
27	50 $\frac{1}{2}$			19	v *	cl	
28	48			20	NE *	cl	
29	47 $\frac{1}{2}$	New York		21	NE v *	b	f
30	46 $\frac{1}{2}$			22	NW NNW **	cl	f
31	47			23	NW v	cb	
Feb. 1 Die Sat.	46 $\frac{1}{2}$			24	W *	c	
2	50 $\frac{1}{2}$	f & a bet. L. island & N. York		25	SW *	cl	
3	47	f		26	NW *	c	
4	42 $\frac{1}{2}$	41° 08" pm. a off Gardiners island.		27	N v * —	c	f
5	47	f & pm. a Rhode isl.		28	S v **	b	
6	39			29	NW **	c	f

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 Feb.							
7	39			n	NW * * *	c	f
8	43			1	SE * *	d	o f
9	47			2	NW * * *	c	
10	46 $\frac{1}{2}$			3	SW * *	cb	
11	43			4	v f SE NE * * *	cb	o o f f
12	40			5	WNW * * *	d	
13	34	f		6	E v *	c	f
14	39 $\frac{1}{2}$	Off Long island		7	v NNE * *	d	f
15	38	pm. a Block isl.		8	v NW * *	d	f
16	39 $\frac{1}{2}$	am. f		9	WNW v * *	d	f
17	43 $\frac{1}{2}$	Cruising		10	NW *	b	f
18	42 $\frac{1}{2}$			11	NW * *	d	f
19	35			12	f N i NW *	c	f
20	29 $\frac{1}{2}$	Block isl. pm. a		13	NW * *	c	f

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1777 Feb. 21	29	am. f		14	NW *	cl	f
22	38	Cruising.		p	NNW v *	cb	f
23	41 $\frac{1}{2}$			16	NNE v * *	b	f
24	44	39° 50"	00° 09" E	17	v E * * *	cb	o o f
25	42 $\frac{1}{2}$	39 27	00 50 W	18	NNW * * *	cl	o f
26	44	39 51	00 25 W	19	WNW * *	c	
27	43			20	WSW v *	cb	
28	38	40 20		21	NW v *	cb	f
Mar. 1 Die Sat.	38 $\frac{1}{2}$			22	NW b N v * * *	f	f
2	34 $\frac{1}{2}$			23	NE v * *	cb	f
3	36	40 42		24	v * *	c	f
4	47	pm. a Block isl.		25	f WSW SW b S * *	cb	f
5	36	f		26	WNW v * *	cb	o f
6	41 $\frac{1}{2}$	Cruising.		27	E v * * *	b	o o f

Year, M. & Day.	Therm.	Latitude, or, different parts.	Long. in or made.	Y's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder, hail, snow &c.
1777 Mar. 7	44 $\frac{1}{2}$			28	N v * *	b	o o f
8	46			29	v *	b	
9	48			n m	f SSW t SSE *	b	o
10	47			2	WSW *	c	
11	47			3	v SSW *	c	
12	47 $\frac{1}{2}$			4	f SSE t SWbW * *	f	o
13	49			5	f NNE t NWbW * *	cb	o o
14	47	Rhode isl. pm. a		6	NW v * *	c	
15	47			7	SW * *	b	
16	48 $\frac{1}{2}$			8	SW v * *	b	
17	49	am. f pm. a Block isl.		9	Wly * *	c	
18	47	a m. f Long isl. pm. a		10	WSW * *	c	

Year, M. & Day.	Therm.	Latitude, or different parts	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Ran, dew thunder, hail, snow &c.
1777 Mar. 19	47	Plam isl a am.		11	Wly *	c	
20	48	Sheiler isl f am. & a		12	Ely * * *	f	o o o
21	48 $\frac{1}{2}$			13	Wly * *	c	
22	48			14	f W b N t SW * *	c	
23	47			p	Wly * *	c	
24	47			16	f SW t NW *	cl	
25	45 $\frac{1}{2}$			17	NW * *	c	
26	41			18	NW * *	c	f
27	42 $\frac{1}{2}$	Rhode isl. am. f pm. a		19	NW * *	c	
28	35			20	NW * *	c	f
29	41			21	SW * *	cl	o
30	46 $\frac{1}{2}$	Off Pru- dence f & a		22	SW *	cb	
31	48 $\frac{1}{2}$			23	NW v * *	cb	o

Year, M. & Day.	Therm.	Latitude, or, different parts.	Long. in or made.	D's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 April 1 Die Mar	47			24	SW *	cb	
2	47			25	Nly *	c	
3	48 $\frac{1}{2}$			26	v *	f	o o
4	42			27	NW * *	c	f
5	42 $\frac{1}{2}$			28	NW SW * *	c	f
6	46 $\frac{1}{2}$			29	Sly * *	c	
7	47 $\frac{1}{2}$			n	SSW * *	b	
8	49 $\frac{1}{2}$			1	SSW * *	b	
9	51			2	v *	b	
10	50 $\frac{1}{2}$			3	v * —	f	o
11	51 $\frac{1}{2}$			4	NW v * *	cb	o
12	51 $\frac{1}{2}$			5	v *	c	
13	52			6	Sly * *	cl	o o
14	55			7	*** NW	c	

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made.	's Age	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 April 15	46			8	NW *	c	f
16	48 $\frac{1}{2}$			9	Sly *	b	
17	51 $\frac{1}{2}$			10	Nly *	b	o
18	52			11	v * *	f	o
19	52			12	E v *	f	o
20	51 $\frac{1}{2}$			13	NE * *	f	
21	52			14	v *	f	
22	52			15	Sly *	f	
23	55			16	NE * *	b	
24	55			17	Nly * *	b	
25	54			18	N * *	b	o
26	52			19	Sly *	b	o
27	52			20	Nly v *	cb	o
28	51			21	NW *	c	
29	48			22	v *	cl	
30	48			23	NW SW * *	cl	

Year, M. & Day	Therm.	Latitude or different parts.	Long. in or made.	's Age.	Winds.	Appear. of the Atmosph	Rain, dew thunder hail, snow &c.
1777 May 1 Die Jovis	48			24	SE Nly * * *	<i>cl</i>	o o
2	47 $\frac{1}{2}$			25	NW * *	<i>c</i>	
3	50			26	SW *	<i>c</i>	
4	53			27	Sly *	<i>cb</i>	o
5	54			28	Nly v *	<i>cb</i>	o o
6	55			29	Nly *	<i>c</i>	
7	53 $\frac{1}{2}$			n	SE * *	<i>b</i>	o
8	54 $\frac{1}{2}$			1	Sly *	<i>b</i>	
9	54			2	NE *	<i>cl</i>	o o
10	54			3	Nly *	<i>cl</i>	
11	53			4	v *	<i>cl</i>	o
12	48			5	NW v * *	<i>cb</i>	o
13	48 $\frac{1}{2}$			6	NW * *	<i>cl</i>	b
14	50 $\frac{1}{2}$			7	SW * *	<i>c</i>	
15	53			8	SW * *	<i>c</i>	
16	55			9	Sly * *	<i>cb</i>	o o

Year, M. & Day	Therm.	Latitude, or different parts.	Long. in or made	's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 May 17	55 $\frac{1}{2}$			10	Sly * *	cb	o
18	56 $\frac{1}{2}$			11	Sly *	cl	o
19	58 $\frac{1}{2}$			12	Sly *	cl	o
20	59			13	v *	cl	o
21	58 $\frac{1}{2}$			14	v * *	c	
22	57			P	NW * *	c	
23	58			16	NW * *	c	
24	60			17	Sly * *	c	
25	59 $\frac{1}{2}$			18	Nly * *	c	
26	59			19	Nly * *	b	
27	54 $\frac{1}{2}$			20	NE * * *	cb	
28	55 $\frac{1}{2}$			21	v * *	c	
29	59 $\frac{1}{2}$	am. f pm. a		22	Sly *	c	d
30	59 $\frac{1}{2}$	f & a		23	Sly *	c	

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	D's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 May 31	63	New Port		24	Sly * —	c	
1777 1 Die. Sab. Junii	64			25	Sly * —	c	
2	63	pm. f		26	SW * —	cb	
3	62½	40° 41"	00° 24" E made	27	WSW * *	f	l
4	62½	40 05	02 04 E	28	NW v *	c	
5	59½	41 51	02 50	n	SW v * *	c	
6	59	42 55	02 31	1	Wly * *	c	
7	60	43 28		2	NNW v * —	cb	
8	60	42 28		3	v * *	b	
9	60½	42 04 Off Cape Cod.		4	SE *	b	o
10	60	42 04		5	SSE * —	cb	
11	62	Off Cape Cod.		6	Nly *	b	

Year, M. & Day.	Therm.	Latitude, or different parts.	Long. in or made.	's Age	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 Jun. 12	61 $\frac{1}{2}$	42° 50"	00° 46" E made	7	SE v * *	f	o
13	59	42 54	01 00	8	NE v * *	f	
14	59	Cruising.		9	v *	c	
15	61			10	Sly * —	cb	
16	62 $\frac{1}{2}$			11	SSW v * —	f	o o t l
17	63 $\frac{1}{2}$			12	v * —	cb	o t l
18	62 $\frac{1}{2}$	42 14		13	v * *	cb	
19	62 $\frac{1}{2}$	42 00	00° 39" E	14	Nly v *	cb	
20	62	42 00	01 12	p	Nly v *	cb	
21	63	42 10	00 38	16	Nly *	cb	
22	61 $\frac{1}{2}$	41 17		17	Ely v * *	cb	
23	60	Cruising.		18	Syl * * *	cb	o
24	61	42 02		19	S * *	cb	o

Year, M & Day.	Therm.	Latitude, or different parts.	Long. in or made.	D's Age.	Winds.	Appear. of the Atmosph.	Rain, dew thunder, hail, snow &c.
1777 Junii 25	63 $\frac{1}{2}$	42° 31'		20	WNW v *	b	
26	63 $\frac{1}{2}$	42 26		21	SW v *	b	l
27	67	pm. Cape Cod Bay.		22	Sly * *	cl	
28	68 $\frac{1}{2}$	Cape Cod Harbour.		23	SSW *	b	
29	68			24	Sly v *	b	
30	68 $\frac{1}{2}$			25	Sly v * —	b	

END OF THE DIARY OF THE WEATHER.

SECTION

SECTION II.

A DIARY of the SICK LIST, with such Occurrences as might be supposed to affect the Men's Health, from Sept. 1, 1776, 'till June 30, 1777.

SEPTEMBER.

1. **T**HERE were on the sick list, two with dysenteries; one with scurvy; one with sciatica; one with a consumption, or hectic; one with a cough; one with deafness; one with a strain:—8 in all.—We were now sailing down the river St. Laurence.

2. The patient with the sciatica, and the other with the strain, recovered:—6 remained on the list. We caught a few cod, and anchored for two hours off the island of St. John.

3. No alteration of the sick list.—Off Hillsborough-bay at anchor. AM. a boat was sent up the river after the Lizard, with orders for Capt. Mackenzie.

4. One of the dysenteric patients recovered, and three were added to the list with dysenteric symptoms:—8 in all. Weighed, and anchored in the bay.—Nothing to be bought ashore, the rebels having plundered the few inhabitants of every thing.—A fever on board the Lizard, and likewise on shore.

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5. The

5. The patient with deafness recovered; and one with an abscess was added:—8 on the list. They are eat up with field-mice ashore.

6. One of the patients who were added the 4th, recovered; and one complained of an ophthalmia:—8 on the sick list. The inhabitants said, that they caught the fever from the Lizard, or an armed vessel that was very sickly, which the Lizard relieved; and I have since been informed, it was from the said vessel that the Lizard's people got the infection. We bought a few bad and very dear vegetables, with a little milk for the scorbutic patient, a boy.—Sailed at noon.

7. Another of those who were added to the list on the 4th, is well,—7 remain. AM. we sailed through the gut of Canceaux; and PM. we caught a few cod opposite Isle Madame.

8. One complained of a dysentery, and one of an abscess:—9 on the list. A very disagreeable day.

9. One, who complained of a contusion, was added to the list:—10 on the list. We caught a few fish, off Cape Breton.

10. The flux patient of the 8th recovered; one complained of a dysentery, as did also the patient with the cough; and one of a fever, who belonged to the cutter, and had been on board the Lizard:—12 on the sick list. Query, Do the fish our men catch contribute to the dysenteric

teric symptoms among them?—PM. we anchored in Beaver Harbour; one family ashore at this place only.

11. The patient added yesterday with the fever, is well:—11 on the list. Our men caught plenty of fish along side of the ship, and trucked with the fishermen for dry fish, milk, and potatoes. Only one family settled ashore; an Indian and his squaw came on board.

12. The patient who complained on the 10th of the dysentery, is well:—10 on the list. AM. we sailed.

13. No alteration in the sick list. We anchored in Halifax harbour; the Milford, and three armed vessels here.

14. The other patient of the 4th, one of the 5th, and one of the 8th, with abscesses, and another of the 10th, with a head-ach, recovered:—6 on the list.

15. No alteration of the sick list; we were served fresh beef; forty of our men sent up into the wood on duty, with two petty officers and a serjeant.

16. One complained of a fever, yesterday PM. and had two paroxisms before he complained: am informed that he was one of the cutter's crew, and was on board the Lizard at St. John's:—7 on the sick list. Spruce beer was begun to be served to the ship's company. I proposed to the captain to have a tent erected

ashore for the sick, but he would not allow it.— Many of our people, especially the marines, got drunk, were ungovernable, and staid on shore all night.

17. The patient who was added yesterday recovered. Three complained of dysenteric symptoms: 9 on the list.

18. One complained of hæmorrhoides sanguinolæ:—10 on the list. The men have fresh beef served them four times a week, and soft bread. The scorbutic patient very ill; men sent to-day to the wood.

19. The other dysenteric patient, who was on the list the 1st, (he was added the 29th ult. with a head-ach) and one of those added the 27th, recovered. One complained of a wound, one of a strain, and one of a contusion:—11 in all.

20. Another of those added the 17th, is well. One complained of a dysentery:—11 on the list. Some of the sick sent ashore to walk.

21. The patient of the 18th recovered; and one added with a strain:—11 in all. His Majesty's ship Rainbow came in from New-York.

22. The patient who had an old cough, returned to duty; and the other of the 17th, is well. Two added with fevers, one of whom was returned well on the 19th only; he formerly belonged to a boat; the other was one of the long-boat's crew, I believe, and was on board the Lizard:—11 on the sick list.

23. One

23. One complained of the belly-ach:—12 on the sick list.

24. The contused patient of the 19th, well; three with dysenteric symptoms added to the sick list:—14 in all. A very wet, disagreeable day.

25. The patient added the 20th, and two of those added yesterday, are well; one complained of a wound:—12 on the sick list.

26. One of those added the 22d, recovered, and the other patient of the 24th is well; one complained of feverish symptoms:—11 on the list. AM. we sailed on a cruise.

27. No alteration of the list. One complained of a wound who does duty. Indifferent weather.

28. The patient added the 26th, recovered; and the dysenteric patient returned to duty the 26th, but relapsed; one complained of an old strain, and one of a scald:—13 in the list.

29. One complained of old eruptions, who does duty. PM. we anchored in le Have harbour. It blew hard in the night.

30. The contused patient of the 9th, the dysenteric patient, one with a scald, added the 20th, and one with a slight complaint, recovered; one (a marine) complained of a fever, with dysenteric symptoms. Ten on the list, viz, two with fevers; one with scurvy; one with a consumption; one with an ophthalmia; two with strains; one of a contusion; and two of wounds.

OCTOBER.

1. The two with strains, and one with a contusion, recovered:—7 on the list. Our people caught fish; they also truck'd for potatoes, pumpkins, and milk. We sailed AM. on our cruise.

2. The patient with the fever, added the 30th ult. is recovered:—6 on the list.

3. Two complained of fevers; one of them was taken ill several days ago:—8 on the list.

4. The man with the ophthalmia is recovered: 7 on the list.

5. No alteration of the list.

6. One of those who were added the 3d, is recovered; one added with a fever:—7 on the list.

7. The other patient who was added on the 3d, is well; one complained of a fever, and one of eruptions:—8 on the list.

8. Two added with the dysentery, one with a fever, and one with the rheumatism:—12 on the list.

9. One complained last night of a fever:—13 on the list.

10. One added with a fever:—14 on the list. The fever is uncommonly obstinate.

11. The two patients who complained the 7th, the one with the rheumatism on the 8th, and

and the one added the 9th, are recovered; one complained of a fever:—11 on the list.

12. Two added with a fever, and one with a contusion:—14 on the list. PM. we anchored at Halifax; the Pembroke arrived from England.

13. Three complained of fevers, one of them was a wounded patient; the marine who was added on the 6th died of his fever; soon after his decease, many livid blotches appeared on him, particularly on the parts whereon he lay during his illness. The fever patients chiefly complain of their head; they are generally seized with rigours, followed, in some cases, with a vomiting and purging; this, in some, continues. Others are seized with a sickness at the stomach only, but some with costiveness, which continues; all of them loathe their food, and most of them complain of universal and wandering pains:—15 on the list.

14. The contus'd patient of the 12th, well:—14 on the list. The fever patients do not lay in bed in the day; they have very irregular remissions of their complaints.

15. One marine added with the fever:—15 on the list. It is not clear to me where we caught the infection, though, most probably, from the Lizard.—There was an armed brig at Hillsborough, St. John's, while the Lizard lay there, from which the Surgeon of the Lizard

zard thought they got their fever; we had communication with that brig.

16. One marine, and one seaman, complained of the fever:—17 on the list.

17 The other lame patient added the 19th ult. the one on the 10th, one of those who were added on the 12th, and one of those added the 13th, recovered; one seaman and one marine complained last night of a fever; one marine added with the piles:—16 on the list. The blood of one of the patients added yesterday is fizy.—The men were served with fresh beef.

18. No alteration of the list. The blood taken from a patient, *who was added the 8th*, was very little fizy, and of a very loose texture; the blood of the other patient taken ill yesterday, was less so.

19. Two complained last night of a fever, one of whom was lately ill of it; and two today, of the same disorder: one of them was seized with a bilious vomiting:—20 on the list. I applied to the Captain to direct that the ship might be smoaked with vinegar and gunpowder, which was done, and that she might not be washed any more that winter. AM. we sailed with two sloops under our convoy.

20. One of those who were added the 13th, and two of them added yesterday, recovered; one complained of a fever, who had been ill
four

four or five days:—18 on the list. Two of the patients had coughs, and two had fixed pains. Towards the end of the paroxysm they complain chiefly of giddiness, and of being light-headed, as they termed it. The blood of one of those added to-day had a thin buff on it; and the crassamentum, though loose in its texture, bore too great a proportion to the serum. Anchored at le Have.

21. The two that were added with the dysentery on the 8th, had the fever, and are well:—16 on the list. The happiest effects have ensued from blisters applied in the beginning of the fever, in many cases; petechiæ appeared on several patients, and are most distinctly seen when they have a sweat on them; their visible duration uncertain. The Captain bought milk for some of the patients.

22. The patient who complained of a fever on the 11th, recovered; three complained last night of the same disorder:—18 on the list. Petechiæ very common among the patients. I applied to have the ship smoaked for an hour only, and it was done. (See October 2.) The men bought potatoes and turnips, and caught fish.

23. A boy added with the fever, complains of a sore throat:—19 on the list. Two of the fever patients have bad coughs; one added the 22d ult. with a slow fever, is hectic: he had

H

been

been a long time ailing. AM we sailed; and PM we anchored again.

24. One of the patients who were added the 12th, one who complained the 18th, PM (see 19th) and one of those who complained the 21st, PM (see 22d) of the fever, recovered. The first of these three was the patient with the eruptions:—17 on the list.

25. The man who was added the 17th with the piles, complained last night of a fever. The marine who was added the 15th with the fever, recovered:—16 on the list. One of the fever patients was seized with the piles. A number of pollock were caught in one of our boats.

26. The boy added with the fever on the 23d recovered:—15 on the list. The patients recovering of the fever relapse from very slight causes.

27. One of the patients added the 16th, recovered; two added with fevers, one of whom was afflicted with it before. One complained of the itch, a marine, and one of a slight contusion; both capable of doing duty:—16 on the list.

28. Yesterday's relapsed patient recovered; one marine complained last night of a fever; his principal complaint was a violent pain in his stomach:—16 on the list.

29. Two patients, one a marine, complained last night, and three this morning, of a fever;
the

the two seized last night complained much of their breasts:—21 on the list. One of those added the 27th was delirious, his tongue black, and his voice altered; one complained of a strain, but does duty.

30. The marine added the 28th, and one of those added yesterday with fevers, recovered; one complained last night of a fever, who returned to duty the 20th, and one is added with a contusion:—21 on the list. The patient with the slight contusion of the 27th, recovered; a number of the men afflicted with slight feverish ailments, who have not complained. PM. we anchored at Coal Pits.

31. The two that complained the 28th, PM. (see the 29th) recovered. The marine who was returned well the 25th, relapsed; one complained of a fever, and the strained patient of the 29th, added:—22 on the list, viz. 16 with fevers, 1 consumptive patient, the boy mentioned the 22d ult. the boy with the scurvy, 1 with eruptions, 1 with a contusion, and 1 with a strain, besides the patient in the itch. All the relapsed patients are very ill.

NOVEMBER.

1. Two marines, one added the 16th, and one the 17th, and one of those added the 27th

ult. with fevers, recovered; a boy complained of a fever: 20 on the list. I applied, and had the ship well smoaked twice, AM. with vinegar and gunpowder, and PM. with junk and tobacco fires, and with loggerheads quenched in tar. The ship was covered every where with a white powder, by the smoaking with gunpowder, and smelt very strong of sulphur, as it did of tobacco by the second smoaking. Two of our boats were sent up to Fort Cumberland.

2. The other patient who was added the 16th, the one on the 20th, one of those on the 29th ult. and the boy yesterday all ill of fevers, with the strained patient added on the 29th, are recovered; one complained last night of a fever:—16 on the list, besides the man with the itch, and some with coughs. The air was very agreeable last night to the men who lay in the tiers; upon every inspiration I tasted the sulphur. The boats returned, and brought a little fresh beef on board yesterday for the Captain and Officers.

3. One who complained on the 31st of the fever recovered; one complained of it last night, he had been ill four or five days; his worst complaint was a purging, and he had the piles; his stools are porraceous. Several of the fever patients have the same kind of stools; a number of them have coughs:—16 on the list. AM. we sailed.

4. Two

4. Two complained last night of the fever, one of them had a purging, and had been ill a fortnight; the other was taken ill the 30th ult. and one complained of a contusion of his breast from fighting:—19 on the list.

5. The man who complained the 29th ult. and the two added yesterday, with the fever, recovered:—16 on the list. The contused patient of yesterday was seized with a fever. Off Annapolis, we anchored in the Basin.

6. The patient added the 2d with a fever, recovered:—15 on the list. Fires were lighted in the hatchways. AM, we sent a boat up to town.

7. The patient who was added the 3d, recovered:—14 on the list, besides the itch patient. AM. we sailed.

8. One complained of the fever last night, who had been ailing a fortnight:—15 on the list.

9. No alteration of the sick list. I applied to have fires lighted in the hatchways.

10. Fifteen still on the list. We could not light fires in the hatchways. We anchored a little.

11. The relapsed patient added the 30th recovered; the man with the itch added with a cough:—15 on the list. One complained of a strain, but does duty.

12. The

12. The patient taken ill the 30th ult. and who was added on the 4th, returned the 5th to duty, relapsed on the 9th, but did not complain until last night of a fever; one added with an inflammation in his leg, who had the fever lately:—17 on the list. The fever patients are all better, except one, who is very bad. I procured fires to be lighted in the hatchways.

13. The other patient who was added on the 8th ult. with the fever, recovered; one complained of a cold from lying on the booms in the barge, and one of a slight wound:—18 on the list.

14. The patient added yesterday with the cold, recovered:—17 on the list, besides the patient afflicted with the itch. Cruizing off the Bay of Fundy.

15. A marine complained last night of the fever; both this, and the relapsed patient added the 12th, caught the infection from a marine, recovering of the fever; he had been very ill, and was removed from the sick birth, back to his own, lest, as he was very timid, the groans or appearance of the patients in the sick birth, might frighten him into a relapse. The patient who was added the 8th, and the one on the 13th with the wound, recovered:—16 on the list. The strained patient who did duty, is now well. We could not get the ship smoaked.

16. The

16. The patient who was added yesterday to the list is very ill; one who had just recovered of a strain, got drunk, and brought on his complaint again; another was added to the list ill of an inflammation:—18 on the list.

17. The man with the piles, added the 25th with the fever; one of those added the 22d, (being sent on board of a prize) and the yesterday's strained patient, were struck off the list; one complained last night of a fever, who was taken ill two days before; he caught it from the seamen sent on board the prize yesterday; they were messmates:—16 on the list. We could not get the ship smoaked.

18. The patient added the 16th with the tumour, recovered; one complained last night of the ear-ach, and two of a fever, AM.—18 on the list.

19. A boy complained last night of a fever, he knew not how long he had been ill; a boy who lay close to him was also seized with it; one was also added with a contusion:—21 on the list.

20. The contused patient of the 4th, the one added the 18th with the ear-ach, and yesterday's contused patient, recovered. A marine complained of a fever; he succeeded to a birth where two marines, who had had the fever, formerly lay, one of whom died the 13th ult. One added with a contusion:—20 on the list. We fell in with the Lizard; the fever
con-

continued to rage on board of that ship; one man having died this cruize, and several before.— They wash the ship, and smoak her afterwards for a little time. Eleven are on the sick list, ill of the fever, and several of the officers have been seized with it.

21. The two other patients of the 18th are well; the fever patient (dismissed yesterday) relapsed again from drinking; and one added with an ulcer.—20 on the list.

22. A boy complained of the fever, who was added to the list, making 21.—AM. we anchored at Halifax.—The sick quarters are so crowded, that, 'tis said, there is no room for our people:—they are indeed shamefully bad quarters.

23. The contused patient of the 20th, and the other of yesterday, are well; the itch patient, besides having a cough, is seized with the fever; and one is added with a wound:—20 bad, besides my first mate, who had an attack of the fever.—Got the ship, with the people's bedding, smoaked.—The last supply of necessaries being (by means of our sickness) expended almost six weeks sooner than the allotted time, I applied for more, but the commissioner would not allow any.

24. One complained of a contusion:—21 on the list. The men were served with fresh beef.—

The

The ship and bedding smoaked again.—My mate recovered.

25. A gentleman, who caught the fever from his mess-mate, was added to the list, making 22.—The fever patients are in a convalescent state; but two of them, in particular, are extremely weak.

26. My second mate was seized yesterday with the fever; a boy (who had been lying about without a hammock for two months past) complained of the same;—24 on the list.—Eleven fever patients on the recovery, eight of whom are marines; the consumptive patient, and he with the diabetes, (or the hectic patient) also the boy with a severe scurvy, and a marine with old eruptions from a venereal cause, making in the whole 15, were sent to the sick quarters. In a few days all the sick at quarters are to be removed to George Island, whereon a sort of hospital is to be fitted up, and to be attended by a surgeon, who had been appointed by Admiral Shuldhham surgeon to an hospital ship.—Our ship was thoroughly cleaned, washed with hot vinegar, and afterward smoaked with gun-powder, junk and tobacco, as before.—Every thing was got on deck, the sick taking all their cloaths with them. After all this trouble, 60 supernumeraries were sent on board of us from the Rainbow; eight of whom had the fever, two

I had

had contusions, one affected with scorbutic symptoms, and another with an ulcer.

27. My mate is recovered. One complained of a fever:—7 in the list, viz. three with fevers, but not very ill, and four with complaints of lameness, besides supernumeraries. Upon my representation of the fatal consequences to be apprehended to our ship's company from the fever among the supernumeraries, the Captain applied to the senior Officers, and got an order to send back all the eight fever patients to the Rainbow: five of them complained of a severe pain in their side or breast, with a cough.—These parts had been hurt by falls not long before, and by lying about on chests in the Rainbow.—They had been sent on board of her from the Pembroke, which they had cleared along-side of the wharf, and used to go into town, get drunk, and lie in the streets, and in infected houses; but the surgeon of the Rainbow had no suspicion of the infection being on board, and was surprised to hear it.—Her men were afterwards very sickly, as I was informed.

28. One complained of a rheumatism, to which he was subject, especially in foggy weather:—8 on the list, besides the four lame supernumeraries:—scrubbed all hammocks.—PM. we weighed, and anchored off Major's Beach.

29. The patient added on the 24th is well.— One complained of a cough:—8 on the list. One supernumerary was added last night with a contusion; five of them are ill.

30. One complained last night of a strain, and another was added with rheumatic pains, and a third with a fever, who messes with the patient added the 27th, making 11 on the sick list: viz. four with fevers, two with the rheumatism, one with a cough, three with ulcers, and one with a strain: besides five supernumeraries, viz. one with scorbutic symptoms, three with contusions, and one with an ulcer. Could not get the ship smoaked.

DECEMBER.

1. The patients added the 26th and 27th ult. and the two rheumatic patients, recovered:—7 in the list. The two contused supernumeraries of the 26th are recovered; three of the others remain ill.—I could not get the ship smoaked.

2. The boy added on the 26th, and another with a cough, on the 29th ult. are well:—5 remain on the list. One supernumerary, who complained last night of the fever, is recovered; three of them are still ill; one of them, with the

ulcer has fractured his clavicle lately, and another has an old rupture.—Squally weather with snow.

3. The boy relapsed last night; he has an inguinal rupture of a considerable standing, which he never mentioned before:—6 on the list. I got the ship smoaked for a short time.

4. A boy added with an abscess:—7 on the list, besides the three supernumeraries.

5. No alteration of the list. The ruptured supernumerary dismissed.

6. One complained of the fever; he had lately been exposed a day and a night to rain, in assisting to get off a transport that had run a-ground:—8 in the list. One supernumerary complained last night of the fever; three of them are now ill. Sailed, AM. with the Amazon, Scarborough, and 34 transports, to New-York.

7. A marine, who attended the sick before they went to quarters, complained of the fever; 9 in the list, besides the supernumeraries.

8. Last night three complained of the fever; two of them relapsed. The boy added the 26th ult. is well:—11 in the list. The supernumerary who was added the 6th, is well; two complained last night of the fever; four more of them are now ill.—The fever patients complain much of chillness, and are dejected; the pulse is neither very quick nor full; the tongue is whitish, and they complain a little of thirst;
three

three of those added last have bad coughs, and one of them was at first seized with a syncope.

9. A marine complained last night of a fever; one added with a wound, and another with an old strain:—14 in the sick list. One of the supernumeraries added yesterday, is well; one complained of the fever, and one of the rheumatism; 5 are now ill. A gale of wind.

10. The strained patient added the 30th ult. and who had the rheumatism, is well. Last night one was added with the fever, and another with a contusion:—15 in the list. A supernumerary, (an old man) who had lately had a cough, complained of the fever; 6 supernumeraries are ill. The gale continues. Lost company of the Scarborough and many of the transports.

11. One complained of the fever, who had it before, and one of a fracture:—17 on the list.

12. One of those added on the 8th, and another on the 18th, with fevers, are well; one complained of a fever, and two of contusions:—18 on the list. The rheumatic supernumerary of the 9th is well. One (from messing with the gentleman who had the fever) was seized with it last night, and another AM. 7 ill.

13. The patient of the 6th, and one of those (a marine) who was added on the 8th, with fevers are well; one complained of the fever;—17 on the sick list. The fever supernumerary of

of the 9th is well; 6 of them are ill. PM. the Beverly brig, one of the convoy, made a signal of distress; being extremely leaky, the people were taken out of her, and sent on board of different ships; an officer, with sixteen soldiers, three women, and their children, were brought on board of us.

14. A marine complained last night of the fever; and one added AM. with a contusion: 19 on the sick list. One of the supernumeraries who was added on the 8th, and one on the 12th with fevers, are well; four remain sick. A gale of wind.

15. One of the contused patients of the 12th, and one of the 13th, are well; the marine who was returned well the 13th, complained of the rheumatism:—18 in the sick list. A gale of wind.

16. One of the patients with an old ulcer, one added the 8th, with a fever, another of the 10th, with a contusion, and the contused patient of the 14th, are well; one complained of the fever:—15 on the list. Two supernumeraries added last night with the fever, and another, AM. with an ulcer; 7 of them are ill. One of the soldiers complained of a scrophula. A gale of wind.

17. The boy added on the 4th, and the marine on the 7th, are well; one complained last night of the fever, and one AM. of a strain:—

15 in the sick list. The supernumeraries who were added yesterday, are well; two more added with contusions.

18. Two complained last night, and one AM. of the fever:—18 in the list. One supernumerary, returned well the 14th, complained of a cough; 8 of them are ill, besides the soldier. The Amazon parted company with us, taking one ship, that had money on board, under her convoy. A gale of wind.

19. The patient added the 12th, and one of the 17th, with fevers, are well; one complained of a rheumatism, to which he is subject, and another of a contusion:—18 ill. No other alteration. Very bad weather.

20. The fever patient of the 14th, and one with a strain of the 17th, are well; a marine, who some time before had been ill of the fever, relapsed:—17 on the list. The worst complaint among the fever patients at present, is a harrassing cough. The supernumerary added the 16th with an ulcer, is recovered; 7 of them are ill, besides the soldier.

21. The patient of the 15th recovered; one who had been put in an infected birth, was seized with the fever:—17 on the list; but no other alteration. By enquiring of the fever patients, I easily find by what means they contract infection. We have had very bad weather, incessant lightning, and a heavy sea; the deck where the people

ple lay is very wet, and the air hot and disagreeable, from the hatches being batooned down; numbers of the sick are wet in their hammocs, from water running down upon them; and being so crouded with people, the sick birth is not only small, but in a bad place.

22. The rheumatic patient of the 19th is well; one complained of a strain:—17 in the list. One supernumerary added with the fever; 8 are ill, besides the soldier.

23. Two complained last night of the fever: 19 on the list. I applied to have the ship smoaked; but the decks were washed, and fires made afterwards between decks.

24. The patient added the 22d is recovered; a marine complained last night of the fever, and another of an habitual rheumatism:—20 in the sick list. One of the supernumeraries added with the rheumatism; 9, besides the soldier, ill. Fires were lighted in the hatchways.

25. One added with an habitual rheumatism:—21 on the list. The supernumerary added the 22d, is well; one complained of a cough and rheumatism, and one rheumatic patient was seized with the fever; 9 are ill besides the soldier. Fires were lighted in the hatchways.

26. The marine added the 23d is well; one added with an abscess:—21 on the list. The ruptured supernumerary complained; 10 ill.—One soldier complained of an abscess, and an habitual

habitual flux; 2 ill. PM. the other man, who was added on the 23d, died of his fever, delirious; he was remarkably dejected from his being first seized, and continued so. Very bad weather.

27. A marine, added the 28th with a fever, and the patient of the 25th, recovered; six complained of fevers last night:—24 in the list, 14 of which are fever patients. Two of the rheumatic supernumeraries have fevers. The sick birth smelt so offensively, that we were obliged to have it smoaked to-day.

28. The patient added the 21st is well; two, (one of them a marine) complained last night of the fever:—25 on the list besides the supernumeraries. Fires were lighted in the hatches, and the sick birth smoaked and cleaned.

29. One of the contused patients of the 12th, and the patient of the 26th, are recovered; one complained last night of the fever:—24 in the whole. The supernumerary of the 18th recovered, and one complained of the belly-ach; 10 ill besides the soldiers. The sick birth was again cleaned and smoaked.

30. The marine added the 24th, and two of the patients added the 27th, recovered; one complained of a fever, another of a rheumatism, and a third of an inflammation:—24 in all. The supernumerary added yesterday recovered, but PM. he was seized with the fever. No other

alteration: The sick birth was again cleaned and smoaked.

31. One patient added the 18th, one of the 27th, one of the 29th, and another of yesterday, with fevers, are recovered; a marine who lay between two fever patients, complained last night, and two this morning of the fever:—23 in the list, viz. fourteen with fevers, chiefly in a convalescent state, two with the rheumatism, one with a fracture, one with a strain, one with a contusion, one with an inflammation, one with a wound, and two with foul ulcers. The supernumerary added yesterday is well; nine remain sick, viz. five with fevers, two with the rheumatism, (one of whom does duty) one with a rupture, one with contusion, and one with an ulcer. Two soldiers, one with the scrophula, the other with an habitual flux:—35 in all. 9 PM. we arrived at Sandy-Hook. Lighted fires in the hatchways, and cleaned the sick birth.

JANUARY, 1777.

1. Two (one, the marine who had a strain) complained last night, and two this morning of fevers; two added with old coughs:—28 in the list. Two supernumeraries added with fevers, one with an old cough, one with the scurvy, and another with the rheumatism; 14 ill. A passenger in the cabin, who caught the infection from

from Capt. Dalrymple's servants, complained of the fever; 45 in all, including the two soldiers. Sailed up, and anchored off New York. Lord How commands, but is very ill. Cleaned the sick birth well.

2. Sent twelve fever patients, chiefly in a convalescent state, to the hospital at Brooklyn, Long-Island; one of those added the 27th, and another of the 29th, with fevers, are recovered; three complained of the fever, one of them is a servant of the Captain's, who had been ill before, and another has a contusion, making 18 in the whole. Three supernumeraries sent to the hospital with fevers; one added with a contusion, making 13 ill, besides the passenger and soldiers. Fires in the hatchways.

3. Sent four with fevers, the patient with the punctured wound, whose hand was inflamed, and another with a bad ulcer, to the hospital:—12 on the sick list. Three supernumeraries with fevers, and the scorbutic patient were sent to the hospital; 9 ill besides the passenger. The soldiers and women were landed; the ship well cleaned, washed with vinegar, and afterwards dried with fires.

4. Sent one of those added on the 2d with a fever, to the hospital; a patient of the 31st ult. and another of the 1st, with fevers, are well, as also the rheumatic patient of the 24th ult.—8 in the sick list. Fires were lighted. Frost.

5. My second mate was again seized with the fever last night:—9 on the list. Two supernumeraries complained, one of a scald, the other of an inflammation; 11 bad. Spruce beer served to the ship's company.

6. One added with an inflammation:—10 on the list. Three supernumeraries added with fevers; 14 bad.

7. One added with the rheumatism, making 11 on the list. The supernumerary added the 5th, with an inflammation, recovered; 13 ill.

8. The patient of the 30th ult. with an inflammation, recovered:—10 on the list. The passenger is well; but no other alteration.—I am informed that the physician of the hospital thinks there is nothing the matter with our fever patients. It is true most of them sent the first day were in a convalescent state.

9. The patient with the fracture, added the 11th ult. one of those with a cough on the 1st, and my mate, are recovered. Sent the boy with the rupture to the hospital:—6 in the list. Sent six of the supernumeraries to the hospital; viz. two with the rheumatism, one with a cough, one with a fever and rupture, one with an ulcer, and another with a contusion; 7 of them ill yet.

10. The other man, added the 1st inst. with a cough, another of the 6th, are well; a marine, who had the fever twice before, was seized last night with it, and another this morning.—6 in the
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the list. Sent six of the supernumeraries to the hospital; viz. two with the rheumatism, one with a cough, one with a fever and a rupture, one with an ulcer, and one with a contusion; 7 of them remain ill.

10. One man added the 1st with a cough, and another on the 6th, are well; a marine, who had the fever twice before, had a relapse last night, and one this morning.—6 in the list. Two supernumeraries complained of the fever; 9 of them are now ill. Two of them have the scurvy, tho' one of them does duty. The thermometer being placed on deck, stood at 25.

11. One of yesterday's patients is recovered; one complained of a sore throat, and one of a contusion:—7 are ill. Two of the supernumeraries added on the 6th, do duty; one is added with a scorbutic lumbago; 8 of them are ill, one of whom has the scurvy. Sent the marine, who was added yesterday, to the hospital.

12. Two complained of nephritic symptoms: 8 on the list, besides the supernumeraries.—Many of the men get drunk every day with New-England rum.

13. Yesterday's patients are recovered; three are seized with fevers, a swelling about the glands of the face and throat, but they complain chiefly of their heads, and deafness; three added with coughs, and one with dysenteric symptoms:—13 on the list. One of the contused supernumeraries,

ries, who was added the 17th ult. and has since been seized with the rheumatism, is recovered; one complained of the fever, one of a cough, and one is relapsed into the scurvy; 10 of them are now ill.

14. One of the patients added yesterday, died of his fever at 3 AM. how long he had been ill before he complained, I know not; the other two were sent to the hospital; one complained of a contusion:—11 in the sick list. One of the supernumeraries added on the 6th, one of those on the 10th with fevers, one on the 11th, and yesterday's fever patient, are recovered; 6 of them remain ill. The *Flora* arrived from Halifax; three of the men we sent to sick quarters; there came in her the boy who was so ill of the scurvy, and two others. The gentleman and two of the men, who were put on board one of our prizes, were lost by the prize being run ashore near the light-house there; the other two were saved, and came in the *Flora*. Some more of our men, who were on board of another prize, came in her. Our ship was haled alongside of a wharf, and moored out of the stream of ice.

15. The contused patient of the 11th, and one who was added the 13th with a cough, recovered; two added with the fever, (one of whom came in the *Flora*) one with a contusion, and the scorbutic boy with weakness:—16 in the

the list; three of the supernumeraries who were ill having entered for the ship. One supernumerary complained of a cough; four of them now ill.

16. The patient added the 2d with a contusion, and the other with dysenteric symptoms, are recovered; one complained of a suppression of urine, and two more of the ailing supernumeraries entered for the ship:—17 in the list. One supernumerary recovered, and one still remains ill

17. The rheumatic patient of the 30th ult. and the fever patient of the 15th, who came from the Flora, recovered; one complained of the fever, and one of the rheumatism, who had it lately:—17 on the list. The contused patient added the 14th, is ill of the fever.—No other alteration.

18. Sent the patient added the 16th, and one yesterday with a fever, to the hospital; also one scorbutic patient, formerly a supernumerary, was sent to the hospital ship; one complained of a cough:—15 in the list. Sent the scorbutic supernumerary to the hospital ship; one complained of a cough. Very cold.

19. Sent two patients to the hospital with severe fevers; viz. a supernumerary added on the 10th, but since entered for the ship, and one with a contusion; a fever patient of the 15th is recovered:

recovered:—12 remain on the list. No other alteration. Smoked the ship.

20. The carpenter added with the fever, and another with scorbutic symptoms, making 14 on the list. One of the patients added the 13th with a cough, is seized with a fever. No other alteration. Smoked the ship.

21. Sent three with fevers to the hospital; one of them was added the 13th with a cough, another on the 18th, and one, lately entered, who complained last night. The patient of the 11th, with a sore throat, and the supernumerary of the 15th with a cough, are recovered. The patient sent the 3d to the hospital, with the inflammation, was sent back last night for irregularity:—11 on the sick list. The ship was washed, against my inclination, but though fires were lighted afterwards between decks, they cannot dry the ship thoroughly. 9 PM. was an alarm of fire ashore, but it was soon extinguished. When the thermometer was at 52, there was a fire in the gun-room.

22. Three who were returned from the hospital on the 20th, are again added with fevers, and two other men complained:—16 in the list. The supernumerary is recovered; and here I must observe, that the distinction between the ship's company and supernumeraries will be no longer observed. Fires were lighted in the hatchways, and some *sp. salis* evaporated between

'tween decks. The ship's company employed in washing their cloaths.

23. The scalded patient of the 5th is well; and the scorbutic patient of the 20th is sent to the hospital-ship; one complained of a cough, and a drunken fellow, of the fever:—16 in the list. The men employed as yesterday; lighted fires.

24. Yesterday's fever patient is well; one who lately had a cough, complained of the fever: 16 in the list. A very dirty bad day.

25. Two complained last night of fevers, one of whom had a cough:—18 in the list.

26. The patient added the 23d with a cough, does duty; one added with a cough, and one with a fever:—19 in the list.

27. One rheumatic patient, who returned from the hospital, where, he says, he got nothing for it, was added to the list, making 20 in the whole. Last night there was a false alarm of fire on shore.

28. The one added on the 24th with the fever, is recovered, but has scalded his wrist; one complained of excoriations:—21 in the list.

29. A patient who returned from the hospital on the 20th, and complained the 22d, and one of his messmates who was infected by him, and complained on the 25th, were sent to the hospital; I believe both of them have been irre-

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gular; the patient added the 26th was also sent to the hospital. One added the 15th with a contusion, and yesterday's scalded patient, are recovered; one added with indigestion, one with an inflammation, and one complained of chilblains:—18 in the list.

30. The carpenter, who was added the 20th, recovered; one complained of a contusion, and one of a head-ach, who is not on the list:—18 in all.

31. The patient added the 26th with a cough, had the fever, and is discharged; one added with the fever;—18 in the list; viz. four with fevers, three with the rheumatism, one with the scurvy, (seized with indigestion); two with inflammation; three with contusions, one with a furuncle, one with excoriations, one with chilblains, one with an ulcer, and one weak patient, besides one with the head-ach.—The ship was haled into the stream, and 54 prisoners were sent on board of us from a prison ship.

F E B R U A R Y.

1. Three marines, (one of them with an inflammation) and one seaman who attended the sick, complained last night of the fever; the contused patient of the 30th is discharged, and the other patient of the 30th is recovered; one complained of the fever:—21 in the list.

2, The

2. The contused patient of the 2d ult. had the fever, and is recovered; and the marine with inflammation, added yesterday with a fever, is recovered, as also the one with chilblains; one of our men died at the hospital last night, he was sent there the 29th; one of his messmates, upon hearing it complained of the fever; four returned from the hospital last night, one of them added to the list, who is very weak, and not free of the fever; one yesterday, with an old rheumatism, making, in all, 22 in the list.—Sailed and anchored PM. near Hell-gates, that is between the Continent and Long-island.

3. The patient with an inflammation, of the 21st; one with an inflammation of the 29th ult. one of the marines added the 1st, and yesterday's frightened patient, recovered; one complained of a relapse of the fever, and another of a cough, who was at the hospital:—20 in the list. Sailed through Hell gates.

4. Two marines complained of coughs; one of a rheumatism, one of a strain, and one of an ulcer:—25 in the list. PM. we anchored off Gardener's Island.

5. The frightened patient relapsed again last night; the officer of marines, and the gunner added with the fever, and one with the scurvy:—29 in the list. PM. we anchored at Rhode-Island. Sir Peter Parker commands.

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6. One of those added the 22d ult. and the seaman of the 1st, with fevers, are recovered, as also one added the 4th with a strain; five complained last night of the fever; one is the officer of marines' son, who got it by sleeping with his father; and another of them caught it from a sick messmate:—31 in the list. The patient added the 29th ult. with indigestion, is very ill of the scurvy; a singular case. The spruce beer is out—served grog to the ship's company.

7. One added the 30th ult. and one of those yesterday, are recovered of their fevers; two complained last night of the fever:—31 are on the list.

8. The other marine, added on the 1st with a fever, one added the 4th with a rheumatism, the frightened patient of the 5th, and two of those added the 6th, are recovered; one added with a scald, and another with a contusion:—28 in the list. All the prisoners, except nine of them who were English and Irish, were sent on board a cartel, and six of those are very ill of the scurvy.

9. One of the hospital patients, added the 22d ult. one on the third with a cough, another on the 4th, and one on the 6th, are recovered; two complained of fevers, and one of the belly-ach; the six men added with the scurvy. PM. sent one man who was very ill of the scurvy, and two of the remaining six to sick quarters:—30 in the list.

10. The

10. The patient of the 27th ult. and one added on the 6th, are recovered; two added with fevers, one of whom had it twice before, and relapsed last night, the other is a marine:—30 in the list. A pretence is made, whence it originates I know not, that more of our sick cannot be accommodated at sick quarters ashore, though in fact they are not half full. Very bad weather.

11. Two added with the fever last night, one of them a marine, who has had it four times, and one added this morning with the fever; one with the scurvy, and one with a rupture, making 35 in the list, five of whom, marines, got cold by lying under the half-deck while the prisoners were on board. PM. I was obliged to remove my thermometer to my cabin; an exceeding stormy day. A goat, which will make four dinners, was killed for the sick.

12. The gunner added the 4th, one added the 9th, and one of yesterday, (all fever patients) and yesterday's patient with a rupture, are recovered; three added with fevers, one of whom is often ill, and one with a rheumatism, making 35 in the whole.

13. One added the 13th ult. with a fever, who had also an obstinate swelling on the left side of his head, one of the 9th, one of the 11th, and one of yesterday, all fever patients, recovered; one added with fever, one with nephritic symptoms,

toms, and a third with an habitual rheumatism :
—34 on the list. We sailed on a cruise.

14. The one added on the 10th with a fever, is recovered ; five added with fevers, three of whom have coughs, making 38 in the list. The sick-birth changed from a-midships to the starboard side of the main hatchway ; it is cleaned and smoaked as often as the weather permits.—The starboard bay, where the prisoners were confined, though it has been well cleaned, and smoked with gunpowder, still retains a very disagreeable smell.

15. One of those added the 12th, is well ; one complained of a contusion and fever last night ; the man who had the excoriations, is seized with the fever :—38 in the list. PM. we anchored at Block-Island.

16. The patient with nephritic symptoms, added the 13th, is well ; two added with coughs :—37 in the list. We sailed again.

17. The patient added on the 10th of Nov. with an ulcer, and one of the fever patients added the 12th, are well ; two added with a relapse of the fever, (one a marine) making 37 in the list.—The Captain gave a sheep to the sick.

18. The patient added the 7th, and one of those of the 16th, are recovered ; one added with frost-bit toes, and an old rheumatic patient with a fever:

a fever:—37 ill. The sick-birth cleaned as often as the weather will permit.

19. One of the marines added the 4th, one on the 5th, and another the 11th with the scurvy, and one on the 17th, are recovered; six added with fevers, making 39 in the list. We got some oranges and limes out of a prize sloop from Hispaniola, for the use of the sick.

20. The other marine added the 4th, and one of yesterday's patients, are recovered; three added with coughs and sore throats, and one with a scald:—41 in the sick list. P.M. very cold; anchored at Block-Island.

21. Two of the fever patients added the 14th, one of them a marine, the other marine added the 17th, and one of them added yesterday, is recovered. The patient with the ulcer, who recovered the 17th, cut his leg again by getting drunk yesterday, and has now had a bad ulcer; one complained of scorbutic symptoms, and another of an excoriation, making 40 in the list. Last night was by much the coldest we have had during the winter; in my cabin, in the cock-pit, the thermometer was 26. This morning we sailed.

22. The patient added the third, the scalded patient on the 18th, the marine on the 10th, one on the 2d with the rheumatism, one of those on the 16th, one of the 19th, and two with coughs,

coughs of the 20th, are recovered; two complained of fevers:—34 in the list.

23. One added the 14th, and one of yesterday's fever patients, recovered; three, (one of them a boy) complained last night of the fever; one added with a contusion, and one with excoriations:—37 in the list. One who was seized with feverish symptoms last night, recovered.

24. The other patient added the 22d, is recovered; two with fevers, of whom had several relapses, added to the list, making 38 in all, besides some with colds, who do duty.—Bad weather.

25. The patients added the 21st, and one of the fever patients on the 23d, are well: one complained of the belly-ache, one of a rheumatism, and two of contusions:—39 in the list, and a number ailing who do duty.

26. One with contusions, and another with excoriations, added the 23d, and one of yesterday's contused patients, are recovered; four complained of fevers, and one of a contusion:—41 in the sick list. The ship was cleaned. PM. one of them added the 19th, died of his fever: he is the 4th who has died of it. We spoke with the Orpheus, having a prize. I hear they have seventy on their sick list, chiefly with fevers, which they caught, it seems, from some prisoners whom they had on board. I have since been told by the surgeon, that they lost twelve or thirteen

thirteen on board, and a good many at sick quarters, by this fever. He did not use the bark.

27. One of the 17th ult. with a rheumatism, one added the 9th, the frequently-ailing marine of the 11th, one of the 24th, a confused patient of the 25th, and one of yesterday's fever patients are recovered; one complained of a fever, whose messmate had it lately, one with a furuncle, and one of a scald, making 38 in the whole. Fires were lighted in the hatchways.

28. The patient added the 9th with the belly-ach, one of those added on the 19th, and one on the 26th, with a contusion, are recovered; two added with the fever, and one with an inflamed arm, making 38 in all:—viz. sixteen with the fever, seven with the scurvy, three with rheumatism, one with a bad cough, one with the belly-ach, one with the ear-ach, one frost-bit, one with excoriations, one wounded, one with inflammation, and two with furuncles.

MARCH:

1. One of those added the 19th, one with a belly-ache on the 25th, and one of those with fevers on the 26th ult. are recovered; four complained of fevers, (one of them a relapsed patient) and two of the rheumatism, who are subject to it:—41 in the list.

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2. One who had a furuncle, and was seized the 1st ult. with a fever, is recovered; one complained of a fever:—41 in the list. One of the scorbutic patients, who was a prisoner, has severe frost-bit toes, but did not complain of them before.

3. One of the marines added the 4th, one of the fever patients of the 26th, the two furuncle patients, and two of the fever patients added the 1st, are recovered; one complained last night of a fever, one of a diabetes, one of a contusion, and one of an ulcer, making 39 in the list. We spoke with the Orpheus, whose people are still very sickly.

4. The patient added the second, who came from the hospital, and one with an inflammation on the 28th ult. are recovered; three complained of fevers, one of scorbutic symptoms, and one of the furuncle patients, who returned to duty yesterday, is relapsed, making 42 in the list. PM. anchored at Block-Island.

5. One of those added the 22d of January, who had been at the hospital, and has had several relapses since, one added the second, one with the diabetes of the third, and one of those who were added yesterday with the fever, recovered; one complained of the fever:—39 in the list. PM. the Orpheus went into Rhode-Island. The inhabitants brought off a little fresh stock, potatoes, beet roots, and eggs.

6. One

6. One of the patients added the 19th ult. and one of yesterday, are recovered; one complained of an inflammation, making 38 in the whole. PM. we stood towards Rhode-Island to get a bullock, some fowls and potatoes. Every thing very dear.

7. One who messes with two fever patients was seized with it, and one complained of a contused knee:—40 in the list. The Captain ordered fresh broth for fifteen of the worst of the sick people, who could use it; and the purser served a number of the sick with fresh beef in lieu of grog, which I had stopped.

8. One of the scorbutic patients added the 9th, one of the fever patients of the 28th ult. one of those of the 4th, and the furuncle patient are recovered; five complained of fevers, making 41 in the list. The Captain ordered broth again for the sick.

9. One of the scorbutic patients added Jan. 18, with the fever, the three rheumatic patients (one of Jan. 26, and the other two of the first inst. one of those added the 5th, the other the 27th ult. with fevers, one of the fever patients of the 1st, and one of the 4th, are recovered; one complained of a bad cough, and one of a fever who has been ill five days, and came out of the prize West-India sloop:—35 in the list.

10. One of the scorbutic patients of the 9th, one added the 22d with a fever, one on the 27th

ult. with a scald, and one on the third with a contusion, recovered; one complained last night of the fever, and another of a scorbutic swelled ankle to which he is subject, making 33 on the list.

11. The patient added the 1st, and one of the 8th with fevers, and one of the 9th with a bad cough, are recovered; one complained of a fever, one with giddiness, and one with the ear-ach:—33 in the list.

12. A marine who has been frequently ill before, and was added the 24th ult. with the fever, the fever patient of the 7th, and yesterday's patient with giddiness, are recovered; one complained last night of the fever, making 31 in the list. PM. the prisoner added the 9th died of his fever in a violent delirium; he had had the disorder on board the sloop, and was five days ill before he complained to me. This is the 5th patient who has died of the fever; petechiæ are very common among the fever patients.

13. The patient added the 6th, the scorbutic one on the 10th, and one with the ear-ach on the 11th, are recovered; a marine added with a foul ulcer:—28 on the list.

14. A patient of the 14th ult. who has had the scurvy since he recovered of his fever, and one added the 8th, are well; one complained last night of the fever, one had a return of a bad cough, and another, subject to the rheumatism,
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is added with the scurvy :—19 in the list, besides two frost-bit and one ulcered, (prisoners) brought out of a prize ; a quantity of onions were also brought from the prize, and served out to all the ship's company. PM. we anchored at Rhode-Island, and sent 17 men to sick quarters, viz. one with a bad cough, one old rheumatic patient, three scorbutic, one of whom was frost-bitten, a boy added the 8th with a fever, and the patient with excoriations.

15. The patient added the 12th is recovered ; one complained of the fever, he attends the sick, and is frequently infected :—22 in the list.—The prisoners were sent on board the Chatham.

16. The fever patient of the 11th recovered ; one added with the fever who lately came from sick quarters, and had been sent there from one of the prizes, ill of a fever :—22 in the list. The Greyhound and Orpheus went up the river.

17. The rheumatic patient added the 25th ult. and one on the 15th from attending the sick, recovered ; two complained of fevers :—22 in the list. We sailed in company with the Lark, and anchored PM. at Block-Island.

18. One added the 19th ult. and one of yesterday's patients are recovered :—20 in the list. AM. we sailed, and PM. we run a sloop ashore ; the Lark stood in pretty near to her afterwards, and we followed, both firing a considerable time
at

at her and two guns, from whence the rebels fired at us, without hurting either of us; but one of our men, by ramming home a wad and cartridge without the gun being spunged, had both his hands blown off, his arms broke and much lacerated, and his face greatly burnt by the gun going off in the mean time. Both arms were necessarily amputated above the elbows. The fever patient of the 14th died PM. he was addicted to drinking. He is the 6th who died of the fever.

19. The frost-bit patient added the 14th, and one of the fever patients of the 28th ult. recovered; one complained yesterday of a head-ach, and another this morning of the fever:—20 in the list. The sick-birth is cleaned and smoaked every good day.—We anchored off Plum-Island.

20. One complained of the rheumatism, two of the scurvy, one of an ear-ach, to which three of them are subject:—24 in the list. We anchored AM. at Shelter-Island.

21. One complained last night of the fever, making 25 in the list. Employed wooding and watering the ship. No stock to be got worthy of notice.

22. The fever patient of the 7th, one of the 8th, one of the 17th, two of the 19th, one with the rheumatism, and another with the ear-ach, of the

the 20th, are recovered ; two complained of the fever, one of a bad cough :—21 in the sick list.

23. The wounded patient died this morning of his wounds, and one of the scorbutic patients of the 20th recovered ; one complained last night of the fever ;—20 in the list.

24. One added the 14th ult. and one of the fever patients of the 22d, recovered ; a black complained of the fever last night, and another man this morning, and one of a contusion, making 21 in the list.

25. One complained last night of the fever : 22 on the list, five of them with very bad fevers. The contused patient of the 25th is well.

26. Two were added with indigestion, from eating raw *clams* or *bens* unwashed, last night ; several others complained from the same cause, who were not added to the list, and were all relieved by vomits :—23 in the sick list. Twenty-nine Americans made their escape in a small boat from Connecticut, and came on board of us, to be sent to New-York to enter as volunteers in one of the Royal American corps. After getting some victuals and drink, they were sent ashore to one of our foraging parties at Long-Island. The Captain and the Officers gave the sick two sheep.

27. The patients added yesterday are well.—one added with the fever, who had it very feverily before, and one with excoriations, making

ing 23 on the list. AM. failed, and PM. arrived at Rhode-Island.

28. One added the 26th ult. one of the 21st, another of the 22d, and two of the 24th, were sent to sick quarters with violent fevers:—18 in the list.

29. The patient of the 27th with a fever, is well:—17 in the list.

30. One complained of frost-bit toes:—18 in the list. Sailed about six or seven miles up the harbour between Rhode-Island and Prudence, to relieve the Centurion.

41. The patient added the 16th is recovered; one complained of a scorbutic swelled leg, making 18 in the list. PM. a sick supernumerary was sent with the rest of them on board the Centurion. The 17 sick are, six with fevers, four with the scurvy, one with a bad cough, one with frost-bit toes, one with a scald, one with excoriations, and three with ulcers. Our boat rows guard in the night.

A P R I L.

1. The patient with the cough, and another with excoriations, are recovered; yesterday's recovered patient is relapsed, and two added with fevers, who have likewise relapsed, making 18 in the list.

2. The

2. The fever patient of the 23d, and one with frost-bit toes of the 30th ult. are recovered: 16 in the list. We began to dig a garden yesterday on the island of Prudence, and to sow some seeds. No inhabitants on it.

3. The patient added the 8th of Feb. with a contusion, and seized on the 11th ult. with a fever, and one of those added the 1st, are recovered; a marine complained of a relapse of the fever last night:—15 in the list. One of our men sent from a prize to sick quarters with the fever. The Centurion went down.

4. One of the ulcer patients, who was added the 21st ult. with a wound, another of the 1st, and yesterday's patient, are recovered; one added to the list with a fever, making 13 in all.

5. The man added the 20th of Feb. with a scalded foot, is recovered:—12 in the list.

6. Two (one of them a marine) complained of the fever, both of whom had it before:—14 in the list. The convalescents were sent ashore to walk, and the ship washed.

7. No alteration of the sick list. I wanted to have a tent erected on shore for the sick, but the Captain would not consent to it, but allows the convalescents to go ashore to walk when the weather permits. Their mutton is all expended. They have portable soup with onions.

8. One of the patients added the 6th is recovered; three added with fevers, and one with an inflammation:—17 in the sick list.

9. One of the scorbutic patients of the 20th, another of the 25th ult. and one of yesterday's fever patients, are recovered; one added with an inflammation, from cutting his nail too close:—15 in the list.

10. Two complained of the fever, one of a bad cough, and one with lethargic or plethoric symptoms, making 19 in the list. A very wet fog.

11. The marine added the 13th ult. and the relapsed patient of the first, (formerly a supernumerary) are recovered; one who lately had the fever, is relapsed, and another with a fore throat added, making 19 in the list. Some portable soup sent on board for the ship's company. I advised 4lb. of it to be dissolved every banian-day in the pease-soup.

12. The fever patients of the 8th, another fever, and the lethargic patient of the 10th, and yesterday's fever patient, are recovered:—15 in the list. The patient added the 10th with a cough is seized with a fever. The people like their pease with the soup.

13. One patient of the 6th, a fever patient of the 8th, and two others of the 10th, recovered:—12 in the list.

14. One

14. One complained last night of the fever, one of the head-ach, and one of an inflammation:—15 in the list. One of the scorbutic patients seized with the fever.

15. The patient of the 11th with a sore throat, is well; one complained last night of the fever:—15 in the list. I hear the men on board of other ships will not eat their pease with the soup. I suppose too much of it is boiled in them.

16. The patient added the 10th ult. and one of the 14th with the head-ach, are recovered; one complained of a relapse of the fever, and another of scorbutic symptoms:—15 on the list.

17. One added the 2d, and one on the 31st ult. and yesterday's fever patient, are recovered; one complained of the fever and an inflammation: 13 in the sick list.

18. A boy complained of the fever last night, one of a sore throat, and one of a slight wound:—16 in the list.

19. No alteration of the list. The patient of the 15th is very ill.

20. The one added the 10th with a bad cough, and one of the 18th with a slight wound, recovered:—14 on the list.

21. No alteration.

22. The patient added on the 9th is well:—13 on the list.

23. One complained of scorbutic symptoms last night:—14 in the list.

N 2

24. Two

24. Two added with the fever, making 16 in the list. One of the patients added this day, has been ailing since he came from New-York hospital. PM. the patient added the 15th died of the fever. This is the 7th who has died of the fever.

25. One of the 17th is well; one complained of scorbutic symptoms:—15 in the list.

26. One complained of a contused wound, and another of an inflamed finger, making 17 in the list.

27. The fever patient of the 4th, and one of the 23d, are recovered; two added with fevers: 17 in the list.

28. No alteration.

29. Seventeen in the list. I am informed that two more of our people were sent with fevers from the prize to sick quarters.

30. Two fever patients sent to sick quarters. The patient added the 25th is well; one of the scorbutic men (a Black, an irregular fellow) returned from sick quarters as bad as when he went, and added to the list:—15 in it, viz. five with the fever, four with the scurvy, one with a sore throat, three with inflammations from different causes, one with a contused wound, and one with an ulcer.

MAY.

M A Y.

1. The boy with the scurvy, who was added the 2d of August ult. and was since in sick quarters at Halifax, the boy with the ulcer of the 3d, one with a fever on the 8th of March, one with an inflammation on the 8th, and one of the 27th ult. are recovered; two complained of the fever, one of whom had it lately, and one of the rheumatism:—13 in the list. Last night the gentleman who had charge of the prize went to sick quarters, and died this day of the fever.

2. No alteration.

3. Thirteen still in the list.

4. Two (one a marine) added to the list with fevers, making 15.

5. One of those added on the 6th, and another on the 24th ult. are well; one complained of an abscess:—14 in the list.

6. One added the 16th with scorbutic symptoms, and one the 18th ult. with a sore throat, are recovered:—12 in the list.

7. One of the 1st, with a fever, is well; one added with a fever and inflammation:—12 in the list.

8. No alteration.

9. The patient of the 5th is recovered:—11 in the list.

10. The

10. The boy added on the 8th ult. though pretty well recovered, has relapsed, and is sent to sick quarters; one is added with a relapse of the fever:—11 in the list.

11. One complained of the fever, making 12 in the list.

12. Two added with fevers, one of whom has had several relapses:—14 in the list.

13. The patient added the 11th, the two of yesterday, and the Black with the scurvy, were sent to sick quarters:—10 in the list.

14. The other fever patient of the 1st is well; one complained of a contusion:—10 in the list.

15. A man who lay close to the sick birth, complained of the fever, and was added, making 11 in the list.

16. The other patient of the 27th ult. and one of the 14th, are recovered:—9 remaining on the list.

17. The patient added the 10th is well:—8 in the list. The ship was moved more than a mile farther up.

18. The rheumatic patient of the first is recovered; another added with the fever:—8 in the list.

19. No alteration in the list.—I applied to the Captain to cause oxylapathum, dandelion, tops of wild pease, &c. to be gathered, and boiled every banian-day among the pease for the ship's company.

20. One

20. One complained of the fever:—9 in the list. Plenty of mint, mustard, sorrel, and lamb's quarter, (as it is vulgarly called) to be gathered ashore, which are well cleaned, and boiled with the pease.

21. One complained of the belly-ach, and one of the tooth-ach:—11 in the list.

22. One complained of a very bad ulcer in his leg:—12 in the list. The men are very fond of their pease with the soup and greens among them.

23. The marine fever patient of the 4th, sent to sick quarters, and one of the 21st are recovered:—9 in the list. These two days past the NW wind has burnt and withered every thing ashore amazingly. A hot day.

24. The patient of the 26th ult. of an inflammation, is recovered:—8 in the list. Some four croute sent on board for the ship's company; half a pound of which is to be served to each man, to eat with their salt beef on Tuesdays and Saturdays while it lasts.

25. One complained of an inflamed foot:—9 in the list.

26. Four with fevers (two of whom, one a boy, had it before) added to the list, making 13.—They have all different symptoms who were added to-day.

27. One of the 15th recovered; another had a relapse of the fever:—13 on the list.

28. The

28. The patient of the 20th, one of the 25th, another of the 26th, and one added yesterday, are recovered; one complained of a sore throat who had it lately, and of furuncles:—10 in the list. The northerly winds have done much mischief to the fruit-trees, &c. ashore.

29. No alteration of the list. At noon, being relieved by the Diamond, we dropped down the harbour, and anchored.

30. The patient added the 14th ult. with an inflammation, and one of the 18th are recovered:—8 on the list.

31. One of those added the 26th is well:—7 on the list, viz. three with fevers, one with a wound, and two with ulcers.—Anchored at New-Port. Some porter sent on board for the sick, from the agent victualler. Eight of our men brought on board from sick quarters.

J U N E.

1. The patient with a wound, added the 26th of April, one added on the 4th, and another the 26th ult. recovered; the patient with the sore throat, discharged; one complained of a whit-loe:—4 in the list.

2. Two of the eight who came from the hospital the 31st ult. are added to the sick list with scorbutic symptoms, making 6 in all. Those who have had the fever of late, have been seized

June.]

THE SICK LIST.

97

seized with scorbutic symptoms, in their convalescent state. PM. we sailed in company with the Amazon and Orpheus on a cruize, and the three ships' companies agreed *viva voce* to share prize money.

3. One complained last night of the fever:—7 in the list. A very wet fog.

4. The patient added the 26th ult. is recovered; two added last night with the fever:—8 in the list.

5. The patient added the 7th, another of the 22d ult. and one of the 1st, are recovered:—5 in the list.

6. The patient of the 4th is recovered; two, one of whom came from a prize, complained last night of a fever:—6 in the list.

7. One of the patients added the 2d, and one of the 4th, are recovered; one complained last night of an hæmorrhage from the nose, making 5 in the list.

8. The patient of the third, and one of the 5th recovered; one added with a fever last night, who came from sick quarters the 30th ult.—4 in the list.

9. One added last night with a contusion:—5 in the list. Caught a few fish.

10. The patient added the 8th, recovered; one complained of the fever—5 in the list.—Caught some fish. Very wet fogs.

11. The

11. The hæmorrhage patient of the 7th is recovered:—4 in the sick list. We caught a few fish.

12. The patient of the 9th is well; one with a wound, one with a contusion last night, and one with scorbutic blotches, who was formerly very ill of the scurvy and sent to sick quarters, added to the list, making 6 in all.

13. One added with a wound, and a boy with a relapse of the fever:—8 in the list. Very wet fogs.

14. One complained of a strain, making 9 in the list.

15. Last night a patient was seized with an epilepsy, who is subject to it; another was added with a fever:—11 in the list. We caught a few cod.

16. The other patient of the 6th, one of the 10th, the wounded patient of the 13th, and yesterday's fever patient, recovered; a boy, who came from sick quarters the 13th ult. relapsed with the fever; one complained of indigestion, from eating fish, and two with slight wounds:—11 in the list.

17. Yesterday's patient with indigestion, is recovered:—10 in the list.

18 The wounded patient of the 12th, and the two of the 16th, recovered so far as to do duty:—7 in the list.

19. No alteration in the sick list.

20. No alteration.

21. The contused patient of the 12th, and the boy of the 16th, are recovered:—5 remaining on the list.

22. No alteration.

23. The epileptic patient has had the fever, and recovered:—4 in the list.

24. No alteration of the list. PM. a squall of wind blew remarkably hot off the land.

25. Four in the list. We caught a number of mackrel.

26. The other patient added the 2d, and the patient of the 14th, recovered; a marine seized yesterday with the fever:—3 in the list.

27. The marine is recovered; one complained of an ulcer:—3 in the list. The last of the people's portable soup is made use of. PM. we anchored in Cape Cod Bay.

28. No alteration of the list. We moved and anchored in Cape Cod Harbour. Our water-casks were sent ashore to be filled, and a corporal with six marines from each ship, and a marine officer to command them in the night, were sent to guard the casks.

29. The scorbutic patient of the 12th is recovered:—2 in the list.—Some fishermen live about this place, from whom we got a few fish for the ship's company.

30. No

30. No alteration of the list. The two sick are, the boy who was added the 13th with the fever, and another on the 27th with an ulcer.

S E C T. III.

MONTHLY REVIEW OF THE SICK LIST,

From Sept. 1, 1776, 'till June 30, 1777.

S E P T E M B E R.

THE sick list varied little, but often, until the middle of the month, when it decreased: it afterwards increased, though slowly, until the 24th, then varied a little, and decreased the last day.

The patients who complained were, four with fevers, two with head-achs, sixteen with the dysentery, one with the belly-ach, one with an opothalmia, one with hæmorrhoides, one with eruptions, one with a scald-head, three with strains, two with contusions, three with wounds, one with a swelling of the knee, and one with a furuncle.—In all 37.

OCTOBER.

OCTOBER.

The fever patient who was taken ill the 22d ult. (a puny boy who had been returned to duty the 19th only) after having been in the list about three weeks.—He complained much of his head at first, and in two days after a flux for a week together, with his head-ach, which weakened him so much, that it was a fortnight before he recovered. When he complained on the 22d, it was of a bad cough, head-ach, and pain of his side; and after this fever, which held him for eight or ten days, he was seized with a diarrhœa and diabetes from weakness, of which he did not recover for as many weeks.

The fever made its appearance on the 15th of September, the third day after we arrived at Halifax; a young man, who belonged to a boat at that time, and therefore was probably on board the Lizard and ashore at Halifax, was taken with an ague, he said; but fortunately he soon got well; and even before him there were two had slight attacks of it. Some dysenteric patients intervened between this man's being taken ill, and the recovery of the boy before-mentioned on the 19th, and his falling ill again on the 22d. I was surprized to find him so long
in

in recovering, as I gave him the bark not very sparingly. There was another man seized with it on the 22d, who recovered perfectly well the 26th.

The ship's barber was the next person seized with it on the 3d; his attack was not violent, and being a tipling young lad, he went about the ship five or six days before he complained, lest his grog should have been stopped. He soon recovered.

Another young man, of a delicate constitution, complained of the fever the same day the barber did. He was very often ailing, but he luckily got quite well in a few days.

The next person was a marine, much given to drinking, and had frequently got drunk with small beer; he was much bloated, of an indolent disposition. Not long before this, he had a fit of drinking: he died the 8th day of his illness. I was much alarmed at seeing, on several parts of his body, a few hours after he died, large black blotches, particularly in those parts he had lain upon. None of the symptoms were running high, and he being naturally of a very slothful disposition, I did not apprehend that he was in any danger. His case will be related hereafter. On this occasion, I was the more uneasy, because the symptoms about the other fever patients were more obstinate than those which had appeared in former months. These circumstances

stances left me no room to doubt but that we had caught a virulent infection. I cannot determine whether we caught it on board of the Lizard, or at St. John's, or at Halifax, for the fever existed in, and we had communication at all the three places in a few days. One thing is certain, that wherever it was contracted, the debauch which our people committed on the 15th of September, soon roused it into violent action. From a very healthy state, we were suddenly plunged into a very sickly and dangerous one. Thirty-nine complained of fevers, two of the dysentery, one of the rheumatism, two of hæmorrhoides, one of eruptions, one of the itch, one of a strain, and three of contusions.—Fifty in all.

The method in which the fever was treated, will be related in its proper place. None of the other complaints required any particular treatment.

NOVEMBER.

A good deal of pains was taken to clean and smoak the ship in different ways, the first of this month, with larger fires of junk and tobacco, than were generally made use of afterwards. To this precaution alone can be attributed the visible check which was given to the fever: there being a decrease of no less than fifteen patients in
the

the course of the month; and all who were in the list did well. The fact is so clear and incontestible, that nothing further need be said in favour of smoaking with large fires for three or four hours at a time, when a ship becomes sickly; nor of frequently repeating this process, at least as often as circumstances will admit.— The sick themselves not only found the air more cool and refreshing after smoaking, but those in health, who lay in the tiers and more confined places of the ship, said it was like a change of climate to them, so cool and agreeable the air was rendered. But it is likewise to be remembered, that the sick were treated with bark.

On the 26th, the sick, or rather convalescents, were sent ashore at Halifax, with all their cloaths, solely with an intention to get the ship cleared of the infection. Indeed, no other motive could have justified sending people to such quarters. Of all the nests of filth combined with poverty, which I ever beheld, they were by far the most shameful. Where, or on whom this reproach falls, I know not; but what renders it indelible, is, that Halifax had never been molested by the rebels, and consequently there were no concurring circumstances to make it necessary to coop up the sick and wounded seamen, in the most filthy and decayed house about town, with scarce a square of glass in a window. As

As to their victualling, they were left to the mercy of an old woman and her daughter, who farmed that part of the *dirty* business, I must call it.

As soon as they were sent ashore, the ship was cleaned and smoaked with as much care as before, and we flattered ourselves that by repetitions of this process, we should be able to subdue the infection entirely; but, to our great mortification, sixty supernumeraries were sent on board in the evening from the Rainbow, eight of whom had the same jail, hospital, or ship fever; and there was no time to get an order to send them back that night.

Besides eight supernumeraries ill of fevers, who were sent back to the Rainbow next day, 24 were added to the list this month with fevers, one with scurvy, two with rheumatism, three with coughs, one with the ear-ach, one with hæmorrhoides, three with strains, six with contusions, two with wounds, two with inflammations, and two with ulcers:—in all 47.

I have nothing in particular to observe at present with respect to the manner in which those men were treated.

D E C E M B E R.

Only five were added with the fever the first week ; one or more were added every day in the second week ; and in the remaining part, excepting the 15th, 19th, and 26th, one or more complained of it daily. But if the state of the weather, and the ship's being so much crouded on the passage from Halifax to New-York, be considered, it will not be thought surprising that we had one patient died, and such an increase of the sick list at the end of the month. On the last of November there were only 16 in it, including supernumeraries ; and on the last of this month there were 35 in it ; but the fever patients were then chiefly in a convalescent state, though they were liable to relapse from inattention, or the least irregularity. There were 49 fever patients, one with a dysentery, one with the belly-ach, nine with the rheumatism, one with a scrophula, one with a cough, one frost-bitten, two with ruptures, six with contusions, two with fractures, two with wounds, two with inflammation, three with abscesses, and one of an ulcer.—In all 83.

The symptoms of the fever were vehement this month, and were very obstinate, particularly the delirium. It was incident to those who complained

plained of the rheumatism, and they, when ill of it, stood more in need of cordials than of evacuations. The rest of the patients were treated after the usual manner.

The passage to New-York was extremely disagreeable, from the length of time we were on it, the badness of the weather, the great number on board, and our being so sickly. The sick being unavoidably so ill accommodated in their births, rendered it still worse. We had sometimes three different gales of wind in the four-and-twenty hours.

JANUARY, 1777.

For the first nine days, excepting the 1st, 2d, and 5th, no fever patients complained. It may be observed, that the more sick we had on board, the more patients we had daily complaining.—*Query*, if this might not proceed from the following causes:—Might not so many people as we had on board on the passage, crowded into so small a space, contribute to this?—When in such a situation there are a number of sick in a ship, will not the infection daily acquire more virulence?—And, under these circumstances, will not those who are obliged to pass and re-pass often in the course of twenty-four hours, by the sick-birth, be very apt to be affected by the sight of the sick, as well as by the infection?—That the wet decks, and the people lying in wet

mocs, (from the upper works of the ship being leaky) contributed thereto, no person will doubt.

Through the remaining part of the month, the men were taken ill nearly every other day; but in order to get rid of the infection, they were sent to the hospital soon after they complained, and a great deal of pains taken to keep the ship clean. Our people were very irregular this month. The ship being very near a wharf, and they having received a little prize money, it was all laid out in New-England new rum.—Whether the patient who died on the 14th, in so short a time as thirty-nine hours after being seized with the fever, had drank any of that abominable new spirit, I know not for a certainty, though I suspect he had. His case will be related in its proper place.

The patients that were added to the sick list, were, forty with fevers, one with a head-ach, one with dysenteric symptoms, one with indigestion, seven with the scurvy, five with rheumatism, two with sore throats, nine with coughs, three with nephritic symptoms, one frost-bit, one with a scald, six with contusions, one with inflammation, one with an abscess, one with a furuncle, and one with excoriations.—In all 81:

F E B R U A R Y.

This was the most sickly month we had in America; a greater number of fever patients being added to the list in the course of it, than in any other. Yet only one patient (a supernumerary who came from the Rainbow) died. Although the prisoners were on board of us only nine days, it cannot be doubted but that by their crowding the ship while they were on board, they promoted or increased the sickness. One of them died on board, without my being informed of his illness, until a few hours before he died. From what accounts I could hear of him, he was in some measure starved from want of cloaths and bedding. But as the prison ship from whence they came was sickly, as I was informed, it is more than probable that he was infected before he left her; and on board of the Juno they were necessarily crowded together into the starboard bay, where he had a wet deck only to lay upon. That part of the ship was unavoidably wet by the cables; and the bay had an offensive smell for a considerable time after they were sent away, though well cleaned and smoaked. While these poor creatures were on board, our marines lay under the half-deck, where

where they caught cold, and were seized with the fever.

The winds being generally northerly, the weather was very cold with snow. Every day, excepting the 4th, 8th, 16th, 20th, 21st, and 25th, fever patients were added to the list, to the number of 61, besides one with the head-ach, two with belly-ach, nine with scurvy, five with rheumatism, three with sore throats, five with coughs, one with nephritic symptoms, one frost-bit, three with scalds, one with strain, two with ruptures, six with contusions, one with an inflammation, one with a furuncle, two with excoriations, and two with ulcers.—106 in all.

An urgent cough, with severe head-ach, were the most frequent and troublesome symptoms of the fever this month. No fever patients were sent to sick quarters, but one from a prize.

M A R C H:

The number of sick were greatly diminished this month, but still the majority of those who complained were fever patients, viz. 34; besides two of indigestion, six of the scurvy, three of the rheumatism, three of coughs, two of the ear-ach, one of giddiness, one of a diabetes, four frost-bit, three of contusions, one of a wound, two of inflammations, one of furuncles, one of
an

an excoriation, and three of ulcers:—in all 67. One of the fever patients died on the 12th, and another on the 18th; the former was the prisoner from the sloop, who had been so long ill before he complained. Irregular people suffered greatly more than others in the fever, in them the symptoms were more severe, and the relapses more frequent. But I observed exceptions to this rule; for under the disadvantages of irregularity, the utmost degree of filthiness and nakedness, and of having a chest only to lie upon, without bedding, I have seen them recover: and what is rather extraordinary, the young, raw, dirty lads from Scotland, who had been but a short time at sea, were seldom seized with it. The man who was blown up or wounded on the 18th, died on the 23d. It was some time (perhaps a quarter of an hour) after the accident, before he recovered any motion or sense, or felt any considerable pain, and continued delirious throughout the night.

Three fever patients were sent to sick quarters on the 28th. For the first five days, fever patients were daily added; but on the 6th, 7th, 13th, 18th, 20th, and 26th, no fever patients complained, nor through the remainder of the month, excepting the 27th; so that by far the greatest number were added before the 18th, after which the infection began to decrease very obviously. This could proceed from nothing
else

else but our firing so much on the 18th,* which not only smoaked the ship thoroughly, but also the men and their cloaths, which never could be done in the usual way of smoaking. The fact is clear, whatever conjectures may be formed on it, as appears by the daily state of the sick list ever after. Yet nothing but accidental circumstances can procure to a sickly ship's company such a beneficial smoaking; as the expences attending the consumption of so much powder as we fired that day, would be too great. But it may therefore be said, with seeming propriety, that little advantage can be derived from this being known, unless it could be put in practice. I think, however, that this being inculcated on board of a sickly ship, when coming to action, may be an additional inducement to them to perform their duty with becoming spirit.

A P R I L.

Northerly winds were the most prevalent this month, consequently the weather was rather cold and unpleasant, though we had but little rain. It was of some benefit to the convalescents that they were allowed to walk ashore now and then; but a good sick tent erected on shore, would have been of much more benefit, not only to all the sick, but to the ship's company in general;
as

* See pages 71 and 72.

as we might thereby, probably, have been able to have entirely *smoked* out the infection.

The sick continued to decrease in number on the list, and the greatest number of the fever patients were added to it before the 19th, viz. on the 1st, 3d, 4th, 6th, 8th, 10th, 11th, 14th, 15th, 16th, 17th, 18th, 24th, and 27th. On the 24th, one died, who, I believe, came from the Rainbow. Two men* were sent to sick quarters with the fever from a prize, and two from the ship on the 30th. All the patients of this month were 27 with fevers, one of a phlethora, one of a dysentery, four of the scurvy, two of sore throats, one of a cough, two of wounds, and six of inflammations:—in all 44.

The most obstinate symptoms of the fever this month, were the head-ach, universal pains, and cough. The delirium was very urgent in that case which proved fatal.

M A Y.

We now became daily more and more healthy. Only 28 patients complained the whole month: viz. 19 of fevers, one of the belly-ach, two of the

* Neither those men, nor any sent from prizes, were under my care. They are only mentioned as men belonging to the ship, who had the fever.

the rheumatism, one of a sore throat, one of a contusion, one of inflammation, one of an abscess, one of a furuncle, and one of an ulcer.

The weather, though somewhat backward, was upon the whole temperate. The winds were mostly between SE and NE. The NW on the 22d and 23d did much mischief, as has been already observed, and likewise on the 28th.

The symptoms of the fever were now much milder; the head-ach, with pains in the limbs, as the patients expressed themselves, were most troublesome.

The gentleman went the 30th ult. from the prize to sick quarters, where he died the 1st inst. He had of late, I was informed, lived very irregularly, and was subject to complaints of his breast from a hurt which he formerly received. Five were sent this month with fevers to sick quarters.

Our people, particularly those who were scorbutic, received benefit from walking ashore; as well as from the portable soup and greens being boiled among their pease, and from the crout.

J U N E.

We had very little bad weather at sea this month, it being chiefly mild, but the atmosphere
was

was either foggy, or in general very hazy. The ship's company caught a great many fish, and they had their soup as usual while it lasted, with croute, twice a week. Under these circumstances the sick list continued to decrease as to fevers, to the great satisfaction of every person on board. Only twelve complained of fevers, one of indigestion, three of scurvy, one of hæmorrhage, one of an epilepsy, one of a strain, two of contusions, four of wounds, one of an abscess, and one of an ulcer:—27 in all.

The head-ach was the most troublesome symptom among the fever patients.

C H A P. III.

MONTHLY REVIEW OF THE SICK LIST,

From July 1, 1777, 'till July 30, 1778, with meteorological Observations, and remarkable Occurrences

JULY.

THE winds were variable, blowing moderately from every point of the compass in the course of the month. It was very seldom calm, tho' little rain fell, and that only on seven days of the month; the atmosphere was generally hazy, foggy, or cloudy. On the 2d, 3d, and 4th, heavy dews: on the 5th, 9th, 17th, and 20th, light showers, 22d, 23d, and 29th, showers, the rain fell on the 5th and 17th with thunder and lightning, 22d with lightning, and 29th with thunder. Mean height of the thermometer about 65; new moon 4th, full moon 20th.

The sick list increased from three to nine in the course of the month; there were added to it in all seven with fevers, the symptoms of which were become milder; one with a head-ach, one with dysenteric symptoms, two with belly-achs, one with vomiting, three with indigestion, six with the scurvy, two with rheumatism, one with
by

July.]

hypochondria, one with worms (ascarides), one with eruptions, two with strains, one with hydrocele, one with a contusion, three with inflammation, and one with an ulcer :—in all 34.

On the 26th a cask of molasses was taken out of a prize for each of the three ships companies, and eight casks of limes were divided among them; indeed the Orpheus had one half of the limes, as her people were the most sickly with the fever and scurvy. I got 18 bottles of small French wine for the use of the sick.

On the 28th, I put three gallons of lime juice and six of molasses in 18 gallons of rum, (but, by mistake, the steward put in more rum than I directed) to be served, when diluted with water, to the scorbutic people, in the room of grog.

On the 31st we got a little stock out of a prize, which was divided among the three ships.

The porter was served out to the ship's company, as a free gift, a pint a day to each man.—

A prisoner, who came from the molasses vessel, complained of an inflamed eye. He said it proceeded from the steam of the molasses, when starting it out of one cask into another about a fortnight before; and that all the men who were employed about that business, were affected in the same manner.

One of our men died the 25th, of his fever, at sick quarters.

AUGUST:

AUGUST.

The wind was variable and very moderate, but more from the S. than any other quarter, 'till the 26th, when it came N. and continued so, but was still moderate until the 31st. It rained the 2d, with *t* and *l*, 3d, light showers, 5th, showers, 10th, 11th, 12th, 13th and 14th, *l*, 15th, *t*, *l*, and showers, 17th, 18th, 19th, and 20th, light showers, 23d, *l*, 26th, showers, 27th, light showers. The atmosphere in general was hazy and cloudy, but the 6th, 7th, and 8th we had fogs. New moon the 3d, and full moon 18th. The thermometer was never lower than 68, nor higher than 78.

The sick list varied a little, but continued rather increasing until the 12th. On the 13th we arrived at Rhode-Island;—the people of the *Orpheus* continued sickly all the voyage. The dysentery began now to attack the people. I sent to sick quarters on the 14th, one with a fever, three with fluxes, one with a bad cough, and three with the scurvy. From the 14th the list varied frequently until the end of the month.—On the 28th, one with a dysentery, one with a vomica, and one with a hydrocele, were sent to sick quarters. A third part of the ship's company

pany were sent in their turns ashore, to walk and gather apples, when the ship's duty and the weather permitted. On the 15th we anchored up the harbour, off Prudence.

The patients who complained were, nine of fevers, one of a pleurisy, five of a dysentery, one of a vomiting, one of indigestion, three of the scurvy, one of the rheumatism, one of hypochondria, one of a vomica, one of a cough, one of eruptions, one of a strain, two of contusions, two of inflammations, one of an abscess, one of a furuncle, and one of ulcers:—in all 33.

There were no unusual symptoms either among the fever or dysenteric patients.

SEPTEMBER.

Northerly and NE winds were most prevalent; some days they were variable, seldom calm, and always moderate; 6th, 7th, and 10th, light showers, 17th, showers, 18th, hard showers, 19th light showers, 21st, *t*, 22d, light showers, 23d showers, 26th, light showers. The atmosphere was generally cloudy, sometimes clear, and very seldom hazy. New moon the 1st, and full moon the 17th. The mean height of the thermometer was about 66.

The sick list varied little, but rather increased all the month with dysenteric patients, one of whom

whom died on the 19th; but the fever with petechiæ accompanied his flux. Nothing uncommon happened in the dysentery. On the 4th, a corporal and two marines were shot, and one wounded ashore by the rebels; while they were guarding the watering party, above 200 rebels attacked the corporal and six marines, the boats crew, a midshipman, and the cooper. On the 12th, a man was killed by a fall from the main-top.

Five patients were added with the fever, fifteen with the dysentery, one with a fore throat, five with contusions, two with wounds, and two with furuncles:—30 in all. On the 14th, sent one of the fever patients to sick quarters.

OCTOBER.

Northerly winds prevailed more than the Southerly; 1st, 2d, 25th, and 26th were calm, but these calms were not throughout the whole day; it was mostly moderate, and sometimes variable. On the 18th, 27th, 28th, and 29th, gales; 9th, showers, 13th, 18th, 21st, 24th, 25th, 26th, 27th, and 29th, light showers; 28th, heavy rain. The atmosphere was generally hazy or cloudy: new moon the 1st, full moon 15th. The mean height of the thermometer was about 60. From the 22d to the end, the weather became cold.

The

The sick list rather increased all the month, the dysentery still prevailing. On the 1st, four were sent to sick quarters with the dysentery, and one with the fever; one died of the flux the 10th, and two, with the dysentery, were sent to sick quarters. The dysentery was very obstinate, but there was nothing unusual among the fever patients. Nine were added with the fever, fourteen with the dysentery, one with the cholera morbus, two with the rheumatism, one with a sore throat, three with contusions, one with inflammation, and one with an abscess:—in all 32.

N O V E M B E R.

For the first four or five days, the wind was Southerly and Westerly, (though it froze on the 1st) and then came round to the Northward, varying, with rain, and fixed for two days in the NW with fresh gales. It blew Southerly again for one day, then returned to the N and NW for three days with rain; veered again for a short time to the SW, and gradually came back to the WNW, W, and NW for ten days, with frost and some snow, blowing strong at times. From the SW it blew fresh one day, varied, became Northerly, then Southerly and Westerly—NW again—variable and Easterly with strong gales. The 12th, 13th, 17th, and 18th, gales, 29th,
R strong

strong gales, 22d and 23d, short calms, 6th, heavy rain, 5th, 8th, 9th, 10th, 22d, 26th, 29th, 30th, light showers. The atmosphere was generally cloudy or hazy. The moon was full the 14th, and changed the 29th. The mean height of the thermometer was about 46.

On the 18th we dropped down to New Port; 23d sailed with a convoy, and returned next day. 27th sailed again, and anchored at Block-Island PM.—28th sailed with a convoy towards Sandy Hook; 29th, they were all dispersed by the gale of wind. The Diamond, Flora, and Lark were out on a cruise, and got very sickly from the bad weather, and from infection communicated by prisoners taken out of the prizes. The small-pox was on board the last.

The sick list varied very little, but towards the end of the month it was increased by hurt patients. This was the healthiest month we enjoyed in America while the Juno existed; only twenty-one patients having complained, viz. one of a fever, one of a head-ach, two of the dysentery, one of the rheumatism, one of a palpitation of the heart, one of a cough, two of scalds, six of contusions, two of wounds, three of inflammations, and one of a furuncle.

Two with the rheumatism, and one with a scald head, were sent to sick quarters on the 19th, and one on the 26th with the fever.

This was an agreeable change for the better. Our men were very seldom ashore, and only at
first

first, when we went up to Prudence; and the weather was far colder in February last than it was in this month. On the 21st, six of our men, who had been taken prisoners the 4th of Sept. returned in a flag of truce, and another of them escaped out of prison. When they came on board, I got them well washed with warm water, then with warm vinegar, and got clean cloaths put on them. Afterwards I gave each of them of Huxham's *Tinct. of Bark*, \mathfrak{z} i. *Tartar emet.* gr. $\frac{1}{4}$ and *Aq. simp.* \mathfrak{z} iss.

DECEMBER.

The wind was chiefly from WSW to NE, and, unless in the beginning of the month, when it blew strong gales, was commonly moderate.—The 2d and 15th light showers, 29th, gales. We had only nine days without frost, and snow fell on four days only. The atmosphere was oftener cloudy and hazy, than quite clear:—13th, 17th, 18th, 27th, and 29th, light showers. Full moon the 14th, new moon the 29th:—it was very cold about the end of the month. The mean height of the thermometer was about 44.

We returned to New-Port the 7th; our sick list increased until the 19th, and all the week following decreased, and from the 27th until the end of the month, increased. A fever pa-

tient was sent to sick quarters the 12th, and another fever and one dysenteric patient on the 27th. Query, Did the increase of fever and dysenteric patients proceed from the blowing weather at the end of the last, and beginning of this month?—our hatches being then batooned down. On the morning of the 30th, every thing on board which the wind blew upon, had the appearance of being cased over with ice, it having rained, hailed, snowed, and froze in the night.—The ship's decks were very leaky, many of the men were wet in their hammocs, and a great deal of water was between decks. Most of the fever patients were lying in the bays, where the air is most confined. The man who first complained of the fever this month, was delirious when he complained.

The number of patients added to the sick list this month, were ten ill of the fever, four of the dysentery, six of the rheumatism, five of coughs, one of the ear-ach, one of a hernia, three of contusions, and two of furuncles:—in all 32

The Nonfuch, Reasonable, and Somerset were very sickly.—The Nonfuch left England in March, and fifty of her men have been already carried off by the fever. Each of these ships has now between 130 and 150 men on their sick list. The Somerset's men have the fever, and the other two ships have far more scorbutics than

than fevers.—The fever and dysentery raged much to the Southward this last campaign.

JANUARY. 1778.

The wind blew from between NW and SW more than from any other part of the compass. On the 8th, 17th, 18th, 21st, and 29th, we had generally fresh gales, but on the 7th, 27th, and 30th, calms for a short time; at the beginning of the month, there was some frost, and a good deal between the 14th and 26th; 3d, 8th, 10th, and 18th, light showers; 11th, 17th, light showers with snow, 29th and 31st, heavy rains, 5th, 20th, 24th, and 25th, snow. Full moon 14th, new moon 28th. The mean height of the thermometer was about 39. The atmosphere was chiefly hazy and cloudy.

The sick list decreased until the 8th,—increased for two days,—decreased until the 22d, and increased again until the end of the month. There were never more than twelve in it. The patients who complained were six of fevers, one of a head-ach, one of a dysentery, one of vomiting, five of the rheumatism, one of a sore-throat, one of an ophthalmia, one of a contusion, one of a fracture, one of a wound, one of an inflammation, one of an abscess, and five with furuncles:—26 in all.

On

On the 2d we sailed to Long-Island, and returned the 6th, when we found Lord Howe on board the Eagle:—she was far from being healthy. We sailed the 7th, returned the 9th, and on the 20th went up and lay between Rhode-Island and Prudence; 31st anchored at Prudence. —Nothing particular happened among the sick this month.

FEBRUARY.

A moderate Westerly wind for the first five days was succeeded by a short calm; it came to the Eastward on the 6th, and blew violently on the morning of the 7th from NNE with snow: much damage was done by the gale. It was afterwards variable, but oftener from the NW than from any other quarter. The 12th, 13th, 17th, 20th, and 21st were calm. The atmosphere was sometimes clear, but generally cloudy or hazy, excepting the 11th and 27th, showers, 16th and 26th, light ditto. It generally froze from the 6th to the end of the month, and a good deal of snow fell. The moon was full the 11th, and changed the 26th. The mean height of the thermometer was 44.

On the 15th we sailed in company with the Cerberus and Haerlem, and 24 sail, chiefly of transports, all carrying flags of truce; towards evening,

evening, we and the Cerberus parted from the Haerlem and transports, and on the 21st, PM. we arrived in Cape Cod bay or harbour.

The sick list varied until the 10th,—rather increased until the 18th, and was afterwards variable until the end of the month. There were never more than 18 in it:—in all 35 were added to it; viz. eleven who complained of fevers, one of a dysentery, two of the scurvy, one of the rheumatism, one of an hæmoptoe, two of sore throats, two of coughs, one of nephritis, four frost-bit, one of a scald, three of contusions, one of a wound, one of an inflammation, one of an abscess, one of a furuncle, and two of ulcers.

I suppose it will hardly be doubted but that the badness of the weather was the cause of the fevers prevailing again.—The surgeon of the Eagle informed me, that the yellow fever appeared with violence on board of the fleet last summer, between New-York and Chesapeake.

MARCH.

The 1st, the wind was SW, 2d, f SW t WNW, 3d, Northerly with calms, 4th, NW with fresh breezes; until the 21st it blew variably and seldom strong; 21st and 22d, calms at NNW; then it was variable, and rather moderate until the 29th, when a most violent gale of wind came
on

on at ESE, veered round gradually to the NW blowing strong gales the 30th and 31st: the frost, with snow every day except the 6th and 8th, continued 'till the 9th; 10th, 11th, 12th, 13th, 17th, light showers; 16th, 31st, snow; 21st, 22d, and 23d, frost; 28th, 29th, hail; 30th, showers. We had the atmosphere more clear than usual, but it was frequently hazy and cloudy. Full moon the 12th, new moon 28th. The mean height of the thermometer was between 33 and 34.

On the 1st, the Haerlem came into Cape Cod Bay, with 21 sail of transports; the lieutenant who commanded her, as also his clerk, two midshipmen, and a number of the people, were ill of the fever. One of her men died, and most of them recovered with difficulty. Our second Lieutenant caught the infection by being on board of her on duty. She was cleared, and sent as a flag of truce to Boston;—our first Lieutenant and my first mate went in her. Several men were taken ill, but by following the method used in our ship, they soon recovered.— 17th, the Centurion joined us with orders from Lord Howe, and on the 19th the Orpheus joined us from a cruize; they had the small-pox on board, and several passengers for Rhode-Island. 25th we sailed, and arrived the 29th, with the Cerberus and most of the transports, at New-Port. Captain Griffith commanded.

The

The sick list varied from the beginning until the 29th, when it decreased until the end, tho' very little.—Six complained of the fever, one of a dysentery, two of the rheumatism, six of an ophthalmia, one of the nephritis, one of the itch, one frost-bit, two of contusions, one of an inflammation, and three of furuncles:—in all 24.

The patients fewer than in the preceding month; but our men had neither been fatigued nor got wet, excepting the waterers sometimes; and they had an opportunity to purchase plenty of fresh fish and potatoes.

A P R I L.

The wind varied frequently until the 10th, and blew a strong gale the 3d; from the 10th 'till the 15th, it was Southerly, light airs and fresh breezes, and then chiefly Westerly until the 26th; 19th, 22d, Southerly, 23d and 30th, gales, 26th, 27th, Southerly, 28th, variable, and NNE afterwards; 3d, thunder and lightning with showers, 4th, and 20th, snow, 5th, 15th, 22d, and 30th, showers, 9th, frost and snow, 16th and 17th, light showers. The atmosphere was seldom clear, but generally cloudy or hazy.—Full moon the 11th, changed the 26th. Mean height of the thermometer about 53.

On the 30th a rebel frigate passed and fired at us, without hurting any body.

The Venus was at Rhode-Island, and very sickly. The surgeon told me they had lost about fifty men of the fever, which still continued to rage on board.—I think he said they became sickly from being crowded with prisoners, and cruising with them in bad weather. They were so sickly, that they were obliged to come in before their cruise was at an end.—Their full complement was 240 men. In what manner he treated them, I did not ask himself, but I am informed by a surgeon, an intimate friend of his, who was on the spot, that he followed the antimonial method.

The Haerlem came in; her people are recovering very slowly — 9th we sailed and anchored in the Naragansett passage, and relieved the Somerset, which still continued sickly. I am told they buried ninety men of the fever since they left England, seventy of whom were of their best seamen.

On the 2d I sent a contused patient to sick quarters. A man who entered from a transport at Cape Cod, complained in the afternoon of the 3d of a fever:—he, with two more of her people had been lately ill of a fever. I saw several instances of transports becoming sickly from having sick soldiers on board.—Several of our men were seized with the fever, by their having been
on

on board the Somerset on the 9th. One in particular told me, that while he was on board of her, one of her people (who came very near him) had a very disagreeable smell.

The sick list varied often, but it rather increased until the 14th,—then it altered very little until the 23d, when it began to increase for four days, and after that to decrease. In all, 25 patients complained; viz. eleven of the fever, one of the dysentery, one of the scurvy, one of a sore throat, one of worms, four of contusions, one of a wound, three of inflammations, one of an abscess, and one of a furuncle.

When our sick men had leave to go ashore, to walk, they were forbid to go near the Somerset's old hospital; they bought milk.—I began on the 9th to dig a garden.

M A Y.

Moderate Southerly and variable winds chiefly prevailed, but when it veered round to the Northward, there was a fresh breeze:—the Southerly winds were the sea breezes. The 1st and 2d Northerly, with showers; 4th, 10th, 16th, 17th, 22d, and 31st, light showers; 8th, 14th, showers, 11th, 12th, 13th, 18th, 19th, 28th, 29th, 30th, dews; 15th, dews with light showers, 24th,

dews with lightning, 27th, hard showers. The atmosphere was more frequently hazy or cloudy than clear,—14th and 15th, were foggy. The moon was full the 11th, and changed the 26th. Mean height of the thermometer, about 61.

The Lark had three killed and eight wounded by the rebel frigate on the 30th ult.—On the 4th, sick quarters were broken up at New-Port, and all the sick men were carried to Capt. Brenton's house on the Neck, which is converted into an hospital.

The sick list varied very little all the month, but rather increased towards the end; but fewer were added to it than in any other month. The patients who complained were, eight of fevers, one of a head-ach, two of the rheumatism, three of contusions, and one of a furuncle:—in all 15 only. Our people had leave to walk on Cannanictel, to gather greens; about the 20th they began fishing with lines; they also bought potatoes.

J U N E.

The 1st and 2d the wind was southerly with fresh breezes; 3d, 4th, and 5th, Northerly and NE with light airs and fresh breezes, until the 12th, it was Southerly, *i. e.* from SE to SW: calms 'till the 17th, it was Northerly, generally calm

calm, sea and land breezes, 17th, 18th, and 19th calms; 20th, 21st, Southerly, 22d and 23d, NE, fresh breezes and calms, and then Southerly with frequent calms in the morning until the end. The 1st, light showers, 2d, hard showers, 3d, light showers, 4th, showers, 5th, light showers, 7th and 8th, showers, 17th, thunder and lightning with light showers, 21st, showers, 26th, light showers, 28th, lightning, 29th, and 30th, thunder and lightning. Dews fell every night when it did not rain, except the two last nights. The atmosphere was generally hazy, sometimes cloudy, and at others clear; the 3d and 6th were foggy. The moon was full the 9th, and changed the 24th. The mean height of the thermometer was about 70:—towards the end of the month, the weather became very hot, and the ground was burnt up.

The sick list varied but little all the month; indeed it did not vary less in any one preceding. —Those who complained were, six of fevers, one of a head-ach, one of the dysentery, one of the scurvy, two of the rheumatism, one of an hæmoptoe, one of a sore throat, two of contusions, two of fractures, one of a wound, two of inflammations, two of abscesses, two of furuncles, and two of ulcers:—26 in all. Nothing particular occurred among them.

JULY.

J U L Y.

Part of the 2d the wind was NW, 7th was calm, the 12th and 13th, the wind was NW, and Northerly, the 17th Easterly, from the 20th to the 25th, Northerly and NNE; throughout the rest of the month it was mostly Southerly, but sometimes it was late before the sea breeze set in. The 1st, 2d, 3d, 8th, 9th, and 12th, thunder and lightning; 2d, 3d, 4th, 9th, 10th, 11th, 14th, 20th, 22d, 23d, 28th, and 29th, light showers:—the squalls always came from the NW. Dews in the night. The atmosphere was not often clear, but generally hazy or cloudy. The 10th, 27th, and 31st, we had fogs. Full moon the 9th,—changed 23d. Mean height of the thermometer was about 74. The weather was frequently very hot.

On the 29th, the French fleet appeared off the harbour's mouth, consisting of twelve sail of the line and three frigates. All our frigates immediately got under way, and went close in to different parts of Rhode-Island.—30th, two of the enemy's ships went up the Narragansette, and two up the Seconnetto. PM. the King's Fisher, Alarm, and Spitfire galleys were burnt in the Seconnetto, to prevent their falling into the enemy's hands. As soon as we got into Coddington-

July.]

ton-Cove last night, the people were employed about getting the guns ashore, with ammunition, provisions, and stores.—31st, our people were employed as before. Tents were erected ashore.

The sick list rather increased 'till the 12th, and after that varied and decreased. The patients who complained were six of fevers, two of the head-ach, one of the dysentery, one of the rheumatism, one of a cough, one of an epilepsy, one of a scald, two of contusions, five of wounds, four of abscesses, five of furuncles, five stung by insects, and one of an ulcer:—35 in all. One of the head-ach patients, who is ill of the fever, was a prisoner while he was seized with that disorder.

None but a guard slept on board after the 29th.—It is somewhat remarkable, that during such uncommon duty as was performed by our people the three last days of the month, and with so much unavoidable hurry as attended it, that no accidents happened among them. Several of them were bit in the tents by insects.—Nothing particular occurred among the patients. On the last day of the month we had only lame people in the sick list.

The Journal ends here very properly for various reasons. However, I cannot help making mention of a marine, who complained the first of August:—after having been very drunk, (probably with bad spirits) and lying in the sun the preceding day, he was seized in the night with different symptoms, and in the forenoon his head ached, he was griped, very thirsty, and complained of weakness. I gave him an emetic, and ordered him an ounce of salts; but as they gave him no stool, and he complained much of his bowels and limbs paining him, towards evening I gave him a clyster, which procured two stools, with a great discharge of wind, and gave him much ease:—however, he died in the night. I know not what was the cause of his death, whether it was owing to the liquor he drank, or to a coup-de-soleil, or some mismanagement.—He expired in a shorter time than the man who died on the 12th of January, 1777 at New-York, whom I suspected of having drank some bad new spirit.

Although

Although the infection received a very evident check on the 18th of March, by our firing so much, and seemed to be wholly subdued in the month of November following; yet we find it still continued on board, tho' dormant, and only required some particular circumstance to excite it, which happened in the beginning of December, it being then again roused into action, by a series of bad weather; or perhaps infected cloaths had been stole from some of the men who died, and concealed until those in whose possession they were, used them instead of their own, now rendered uncomfortably wet. From my knowledge of seamen and marines, I think this is more than probable, although I cannot demonstrate it as a fact.

T

CHAP.

C H A P. IV.

Contains F O U R T A B L E S, which show the different diseases, and the number of each disease, that occurred on board of his Majesty's ship JUNO, from April 4, 1776, until July 30, 1778.

The lowest column but one of the three first Tables, shews the whole number of patients of every month ; and the lowest the number who died every month. The right-hand column shows the whole number of patients of every disease during the period of time which that table represents.

T A B L E

T A B L E I.

From APRIL 4, to DECEMBER 31, 1776.

DISEASES.	April.	May.	June.	July.	Augst.	Sept.	October.	Novemb.	Decemb.	Number of Diseases.
Fever	30	40	16	7	3	5	40	25	50	216
Pleurisy			1							1
Quinsey		1								1
Plethora		1								1
Head-ach					1	2				3
Dysentery		1	5	1	9	16	2		1	35
Belly-ach		3		1	2	1			1	8
Rheumatism	1	1	1	2	1		1	2	9	18
Scurvy	2		2	3	1			1		9
Gout	1		2							3
Scrophula									1	1
Singultus		1								1
Hætic	2				1					3
Hæmorrhage			1							1
Cough	1		2	4	3			3	1	14
Sore Throat				1	2					3
Ear-ach								1		1
Deafness		1			1					2
Giddiness					1					1
Epilepsy			1	1						2
Ophthalmia						1				1

TABLE I. CONTINUED.

DISEASES.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	No. of Diseas.
Nephritis		1								1
Hemorrhoides	1	1				1	2	1		6
Eruption	1	2			1	1	1			6
Itch	4	1	1				1			7
Scald Head					1					1
Frost-bit									1	1
Scald	1									1
Strain	2			1	1	3	1	3	2	13
Rupture			1						2	3
Contusion	3	7	8	5	1	2	3	6	6	41
Fracture	1			1					2	4
Wound		1		1	3	3		2	2	12
Inflammation	3	2		1	1			2	2	11
White Swelling	1	1				1				3
Furuncle					1	1				2
Excoriation	1		1							2
Abscess	2	8		2	1				3	16
Ulcer	5			1				2		8
No. of Patients	62	73	42	32	34	38	51	48	83	463
No. of Deaths		1	1				1		1	4

T A B L E II.

From JAN. 1, until DECEMBER 31, 1777.

[illegible]

TABLE II. CONTINUED.

DISEASES.	Jan.	Feb.	March.	April.	May.	June.	July.	August	Sept.	Octob.	Nov.	Dec.	No. of Diseas.
Worms							1						1
Eruption							1	1					2
Frost-bit	1	1	4								2		6
Scald	1	3											4
Strain		1			1	1	2	1					6
Rupture		2										1	3
Hydrocele							1						1
Contusion	6	6	3			2	1	2	5	3	6	3	37
Wound			1	2		4			2		2		11
Inflammation	1	1	2	6	1		3	2		1	3		20
Furuncle	1	1	1		1			1	2		1	2	10
Encysted Tu- mour							1						1
Excoriation	1	2	1										4
Abscess	1				1	1		1		1			5
Ulcer		2	3		1	1	1	1					9
Accidents									4				4
Number of Patients	85	101	67	43	28	29	34	33	34	32	24	30	546
Number of Deaths	1	1	3	1					5	1			12

TABLE

TABLE III.

From JAN. 1, until JULY 30, 1778.

DISEASES.	January.	February.	March.	April.	May.	June.	July.	No. of Diseases.
Fever	7	11	6	12	7	6	6	55
Head-ach	1				1	1	2	5
Dysentery	1	1	1	1		1	1	6
Vomiting	1							1
Rheumatism	5	1	2		2	2	1	13
Scurvy		2		1		1		4
Hemoptysis		1				1		2
Cough		2					1	3
Sore Throat	1	2		1		1		5
Epilepsy							1	1
Ophthalmia	1		6					7
Nephritis		1	1					2
Worms				1				1
Itch			1					1
Frost-bit		4	1					5
Scald		1					1	2
Contusion	1	3	2	4	3	2	2	17

TABLE

TABLE III. CONTINUED.

DISEASES.	Jan.	Feb.	March.	April.	May.	June.	July.	No. of Diseas.
Fracture	1					2		3
Wound	1	1		1		1	5	9
Inflammation	1	1	1	3		2		8
Furuncle	5	1	3	1	1	2	5	18
Abscess	1	1		1		2	4	9
Stung by Insects							5	5
Ulcer		2				2	1	5
Number of Patients	27	35	24	26	14	26	35	187
Number of Deaths								

TABLE

T A B L E IV.

Shews the whole Number of the preceding Tables collectively—distinguishing the Number of those who died on Board—the Number sent to the Hospital—and the Number of those who died of Fevers at the Hospital.

DISEASES.	Number.	Deaths on Board.	Number sent to Hospitals.
Fever	512	7	69*
Pleurisy	2		
Quinty	1		
Plethora	2		
Head-ach	13		
Dysentery	83	2	11
Belly-ach	13		
Cholera Morbus	1		
Vomiting	2		
Indigestion	8		
Rheumatism	50		6
Scurvy	50		18
Gout	3		1
Scrophula	1		
Palpitation of the heart	1		
Hypochondria	1		
Singultus	1	1	
Hætic	3		1 †
Vomica	1		1
Hemoptysis	2		1
Hemorrhagia	2		
Cough	43		9 §
Sore Throat	18		

* Three of these were sent for small-pox. † Sent as phthisic.

§ Three of these were sent as weak.

TABLE IV. CONTINUED:

DISEASES.	Number.	Deaths on Board.	Number sent to Hospitals.
Ear-ach	4		
Deafness	2		
Giddiness	2		
Epilepsy	4		2*
Ophthalmia	8		
Nephritis	7		
Diabetes	1		1
Worms	2		
Hemorrhoides	6		
Eruptions	8		2
Itch	8		
Scald Head	1		1
Frost-bit	12		
Scald	9		
Strain	19		
Rupture	6		1
Hydrocele	1		1
Contusions	95		2
Fracture	7	1	
Wound	32	1	
Inflammation	39		1
White Swelling	3		
Furuncle	30		
Encysted Tumour	1		
Excoriation	6		
Stung by Insects	5		
Abscess	30		
Ulcer	22		5
Accidents	4	4	
Whole Number of Diseases	1196	16	133†

* One of those was sent as insane.

† Many were convalescents, and some were prisoners.

OBSERVATIONS, &c.

P A R T II.

C H A P I.

INTRODUCTION.

IN the following description, the fever is diurnally described, and the symptoms are arranged as they daily appeared; but it is not to be understood, because some of them are repeated for many days successively, that they have been confined all along to those in whom they first appeared:—on the contrary, they are to be considered as now making their first appearance in other cases. It is also to be remembered, that some were seized with more, and others with fewer symptoms, and that they were combined
very

very differently with respect to the order in which, for method's sake, they are here arranged. To avoid repetitions, these are only, in general, every day mentioned which were most urgent; but when the fever is on its decline, about the 31st day, and few are then ill, the worst symptoms are daily repeated.

Though the symptoms which we have termed diagnostic, generally introduce the fever, it was, at its first appearance, attended with many others. 'Tis highly necessary, I think, that young practitioners should not only be apprised of this, but that they should be made acquainted with all the various appearances which the fever puts on, from its commencement to its termination, in a number of patients living as nearly as possible in the same manner;—and this is the reason I have taken the trouble to describe it so minutely. The more we consider such variety of symptoms occurring in the same disease, among persons living under the same regimen, the more we must be convinced that they are regulated more by the constitution of the patient, than by all other circumstances attending them.

S E C T. I.

The SHIP FEVER described, diurnally.

THE diagnostic symptoms, or those which generally introduce the fever, are rigours or chillness, or alternate chills and heats; sickness at stomach, head-ach, universal pains, (or, as the sick express it, pains all over them) or pains in all their bones, but especially in the loins or back, and a morbid appearance in the countenance.

But some informed me, that before the shivering and other symptoms were perceived, they had been ailing, and not well, as they said, for several days,—a week or a fortnight,—three weeks—and even a month:—so long did some droop. The duration and violence of the rigours, chillness, or alternate chills and heats which introduced the fever, varied greatly; and these again were either succeeded by the following symptoms, or accompanied with many of them; and they were very irregular in different persons, both as to their violence and duration.

General debility, universal soreness, or, in their own words, weakness in all their limbs, and
fore-

forenefs all over ; great depression, apprehension, despondency, lassitude, faintness, extreme coldness, syncope, and epilepsy ; a bitter taste in the mouth, oppression about the præcordia, nausea, reaching, porraceous or bilious vomiting, a slight cholera morbus, belly-ach, dysenteric symptoms, diarrhæa with suppression of urine, or the opposite extreme of costiveness ; the head either much confused, or disturbed with pain in the temples, in the hind part, or in the forehead ; giddiness, or deafness ; hæmorrhage at the nose, tooth-ach, sore throat, and relaxed uvula ; sensation of swelling about the præcordia, and of the abdomen after chillness ; pains at the præcordia previous to vomiting, uneasiness in the thorax, very acute pains of either side,* resembling a pleurisy, an urgent cough, and difficult respiration ; a pain of the side, shooting down into the groin or thigh, pain in both ilia, that descended to the feet, a pain reaching from the crown of the head to the sole of the foot of one side ; pain of the right shoulder, pain of the hams. Some, at the very beginning, had great heat, and much perspiration, without any previous

* Violent local pains suspend the patient's attention to, or his sensation of slighter symptoms—of which they again complain as soon as the violent pain is relieved.

vious shivering† or coldness; and in some furuncles appeared‡.

Various degrees of heat and thirst succeeded the rigors and chilness in different persons. In some, the heat was burning, and the thirst insatiable; and in others both were moderate, tho' greater than in health. The pulse varied no less, and as all those variations were perceptible throughout the fever, they will be seldom repeated.

Such were the symptoms which at first ushered in the fever.

First Day.—Of those who were seized in the forenoon or afternoon, and complained immediately, numbers had remissions, and were much relieved within the first twenty-four hours by a vomit, which was instantly given; and by a free perspiration procured in the night, by sudorifics and diluting drinks; and some even recovered by these means—but few had remissions without such assistance.

2.—Many passed a restless night from having no remission; some had a remission, which, as well

† Perhaps it was owing to their slightness that the patients did not attend to them, though they did precede the heat.

‡ I suspect those made their appearance before the patient was seized with fever.

well as the exacerbations and paroxysms throughout the course of the disease, were very irregular with respect to the period at which they appeared, and their duration. Many had remissions of particular symptoms, while the rest continued as violent as ever; and these remissions, whether more or less distinct, were generally effected by perspiration, and in some cases by stools,* very seldom by vomiting.† But profuse evacuations, either by sweat or stool, were so far from always procuring remissions, that they generally seemed to increase the symptoms. Some were yet chilly—others had alternate chills and heats, and some a sensation of cold in the back only. The most general and the most urgent symptoms were head-ach, lumbago, and universal pain. The head was now affected in a more violent degree; a heaviness, lightness and giddiness from looking at any object, were complained of, together with a burning heat and profuse sweats in the forehead; pain of the left eye, or of both eyes, tho' neither were inflamed, pain over the eyes, especially in stooping down; shooting pains in the eyes, and an unusual motion in them; inflammation of the eyes, with an eruption in the face, which in others was turgid, and the eyes watery.

The

* The natural or spontaneous evacuations are here meant.

† This patient came from the hospital the day before, and relapsed.

The head appeared swelled, pain in both ears, and a discharge from the left with pain; deafness, pain of the one side of the neck and shoulder,—fore throat, hoarseness, and difficulty of swallowing were greatly increased by either a teasing or a violent cough; as in like manner were the giddiness, and the pain in the thorax, the abdomen, and the extremities; the right side was most frequently affected. The stomach and bowels were as much disturbed with pain, nausea, reaching, vomiting, costiveness, or purging, as ever. Cramps and spasms of the limbs, and pains of the heels were complained of.—There was now universal uneasiness, besides foreboding; prostration of strength and spirits, and faintness, while some thought themselves neither well nor ill. A number were troubled with great anxiety, much uneasiness and pain at the heart, (as they expressed it, pointing to the præcordia); bitter taste of the mouth, porraceous vomiting and purging, hæmorrhage from the left nostril, expectoration of fetid pus, hæmoptoe, delirium, and petechiæ, were frequent.

The countenance appeared as if the patient had drunk, *i. e.* greatly flushed, and the eyes inflamed; or it was pale or fallow, and greatly diseased:—it was very wild, while the patient thought himself well. There were furuncles on the neck, and an angry eruption on the pained side of the thorax; the tongue was chopt across,

foul, or blackish; the pulse was preternaturally full and soft; there was a yellowish jelly-like discharge from blistered parts.

In the afternoon there were many slight and short remissions, but more exacerbations; and the former were followed by violent paroxysms, preceded in several cases with, and in others without shivering. Relapses happened from irregularity; there were interrupted profuse sweats, and the perspiration, thirst, heat, and pulse, varied much.

3.—A few were sent to the hospital,—some recovered, others were now arrived at a state of recovery, and there were many remissions. But numbers, instead of being relieved, were greatly debilitated and depressed by profuse sweats in the night. Perspiration kept up twenty-four hours procured no remission to some; in others a profuse moisture was diffused all over, and on feeling the pulse, a disagreeable sensation was impressed on the fingers; and this, though not so strong, was perceptible in all, especially during perspiration, or cold, clammy, and uncomfortable sweats. Many passed the night very ill, either from there being no remission of the symptoms, or from exacerbations, or irregular paroxysms, or from perspiration and inquietude.—The rigours held some four hours, and were followed by violent paroxysms. A sensation of great cold, while the skin was burning hot, and
a sen-

a sensation of chillness at times, were troublesome. But the most distressing symptoms during the paroxysms, (besides all the complaints already mentioned, which were now aggravated by more or less cough, rendering respiration difficult) were strictures about the thorax, pain of the crown of the head, pain in the scrobiculus cordis shooting through to the back, or darting from the right to the left breast; shooting, wandering, or flying pains, pains across the ossa innominata, of the right buttock, knees, and wrists; a loss of speech in the night, a distorted face, great inquietude, delirium, and death in one case. Both the thorax and abdomen were distressed as before; a bloody discharge from the left ear, the hæmorrhage from the nose, hæmoptoe, various expectorations of viscid, ropy stuff, occurred in some cases, and in others very fetid pus was discharged. The stools were still porraceous, and bilious, or watery, or white with high-coloured urine. There was a copious discharge of urine, and sometimes involuntarily.—Some had large eruptions on different parts of the body; raving, and petechiæ.

Great debility, giddiness, heaviness, and lightness of the head, with great despondency and faintness, and a bitter taste in the mouth, were very distressing during the indistinct remission. The limbs were as tired and sore, (to use their

phrase) as if they had come off a long journey; and some felt that peculiar sensation of the back and limbs, commonly expressed by being asleep; an inability to shut the hands, was complained of; internal foreness, or in their words, foreness in the inside. The countenance was still flushed, or sometimes pale, fallow, wild, and greatly dejected; the palate sore, and the tongue not only so, but red and foul in the middle.

4.—A few recovered; others were now become convalescents, a few had remissions all day, and some cold sweats. Profuse perspiration in many, as heretofore, procured no remission; remissions, exacerbations, and paroxysms, were as irregular as ever, and the two latter were more generally violent. The paroxysms severe with raving, followed sweating at midnight, and exacerbations in the morning. And there was also remission of pain while the uneasiness, heat, and thirst continued. Remission of the head-ach by stools. The most urgent symptoms were frequent shivering, alternate heats and chills, vomiting; the paroxysms being still introduced by shivering, and exacerbations by languor, and heat in the head. The eyes were prominent in violent paroxysms, which were sometimes preceded by cough, with pain in the breast; the cough in many cases was dry and urgent, and increased the belly-ach.

The

The pain was most vehement in parts which had been formerly hurt, particularly about the clavicles, and palpitation at the heart* occurred. The head, eyes, ears, countenance, throat, thorax, and abdomen were still affected as at first; and in some cases without any remission; the cough was sometimes attended with difficult respiration and tremours. The pains were as various and numerous as before, accompanied with tinnitus aurium. The various discharges and evacuations, with expectoration of brown thick stuff, continued, and the diarrhœa with faintness—worms were voided by stool. Some had cold sweats in the night, an interrupted respiration, and a sensation of creeping and wasting of the flesh. The hæmorrhage from the nose increased the giddiness; an abscess which began to form on the neck, before the fever commenced, suppurated kindly, and after being laid open discharged good matter freely. The urine smelled very strong, and the patients were not refreshed nor relieved by sleep. A green matter was discharged from blistered parts, raving was common, and many had petechiæ. To the same symptoms which prevailed during the remissions on the preceding days, were added terror, momentary partial sweats, depression, breathing

* The patient was subject at other times to this symptom.

ing through the nose, loss of taste, universal debility and foreness; and the head-ach and cough were increased by getting out of bed, and sitting up.

There was no alteration for the better in the countenance, and the tongue in some was very foul and much enlarged.

5.—Some recovered, numbers began to recover, others had remissions, and many had none. Violent exacerbations and paroxysms were more frequent. Remissions were still introduced by perspiration or stools; many passed the night ill from rigours, head-ach, various pains, urgent cough, sweating, inquietude and wandering; shivering for two hours, or chilness, or alternate heats and chills introduced the paroxysms, which were attended with all the variety and severity of pain, cough, and laborious respiration hitherto mentioned, and likewise with reaching, belly-ache, constipations in some, and in others diarrhoea; besides inflammation of the throat, and pain of the neck, there was pain of the right side of the head, eyes and neck, which shot through to the left temple, on turning the head round; violent pains of the left ear and side of the head, dimness of sight at times, nervous pains, to which the patient was subject, and tremors. Some were chilly at times, others were so all day. Disagreeable respiration, loss of speech, muttering and singing inarticulately, a ghastly countenance, and death in one case.—

Some

Some lay contracted on one side:—the evacuations were little altered; either colliquative sweats, a reeking moisture, or partial profuse sweats continued;—blood and pus, or pus alone were spit up; the hæmorrhage at the nose, bilious vomitings, porraceous and watery stools continued; and some voided stools mixed with blood and matter; the angry eruptions about the mouth extended up to the nose; an itch-like eruption spread over the body; petechiæ were very numerous; the expectoration of blood and pus, and of pure pus, continued likewise, and the gelatinous discharge from blisters.

All the distressing symptoms before taken notice of during the imperfect remissions still prevailed, together with anxiety and restlessness.

The countenance and tongue had as various appearances as formerly, and the teeth began to be covered with fordes.

6.—A restless, unquiet night; there was continual chillness, vomiting, and purging, in some cases, and in others sneezing preceded the paroxysms, which were, in some cases brought on by being wet; and were still accompanied with pains and other complaints of the head, eyes, ears, throat, abdomen, loins, and extremities; a very urgent cough, which occasioned sickness at the stomach; the head and abdomen were more disturbed than ever, but many thought themselves better at times. Some complained of the belly-ach, accompanied with swelling and tension

sion of the abdomen, pain all down the spine, pain of the ancles after profuse sweating, a sensation of hollowness in the breast, and a sighing kind of respiration; tremors, spasms, delirium, petechiæ, and a perfect mania.

The evacuations by the skin, vomiting, stool, and expectoration, and the eruptions, with the appearances of the countenance, and of the tongue, were as various as ever; besides, the countenance was now sooty in some cases, and the lips were very foul; the tongue was rough, slimy, and black on each side. In a case with vomica, the breath was very offensive, and there was great thirst even when the skin was quite cool.

The same disagreeable symptoms prevailed during the remission as before. Some were arriving at a state of recovery, some advancing in it, and a few recovered.

7.—A bad night from heat, thirst, sweating, head-ach, all the variety of pains, dyspnœa, and cough, hitherto mentioned. In some cases there were the very same symptoms as at the beginning:—the head, eyes, throat, stomach, and intestines, were still much disordered; heat about the head, pain down the whole spine, pain about the os pubis; the part of the side in which there was excruciating pain, was swelled and tense. Shivering still was frequent; a worm was voided by the nose; relapses with head-ach, the alæ of the nose were distended; some drank
often

often and greedily, looked frequently at their fingers, were agitated with starting and tremors, continual wandering, raving, effusion of tears, involuntary discharge of the fæces, and mania, and these symptoms terminated in death. Expectoration had the same appearances as usual, and was not general. There were numerous eruptions of various kinds; some like the stinging of nettles, but the itch-like eruptions were the most general, and the most troublesome; petechiæ were observed—the tongue had various appearances, and trembled on putting it out, and the countenance was much diseased.

The remissions were attended with the same train of symptoms as usual—some recovered, and numbers were recovering.

8.—The sick rested ill from shivering, head-ach, whimsical dreams, raving, starting, working with the hands, oppression and soreness at the præcordia, and a short, laborious respiration, while the patient thought himself well. Rigors of four hours continuance introduced paroxysms, during which most of the violent symptoms already mentioned still harassed the patients. In some cases, there was no remission for twenty-four hours. Neither the head, thorax, nor abdomen were relieved. Universal pain, uneasiness, anxiety, and inquietude were frequent.—One became scorbutic. The blistered parts, the nose and tongue, were very sore. The face was
Y squalid,

squalid, the nose contracted, continual raving was not uncommon, and some were even maniacal; some lay on their backs with a ghastly countenance; the respiration was very laborious, with a rattling in the throat; petechiæ were still observed, costiveness was very obstinate, white frothy stools with much flatus, were voided by the assistance of clysters. In some cases the expectoration was free and laudable—in many the reverse was observed. Previous to the cough which brought on the hæmoptoe, there was a sense of great weight about the præcordia; and after the hæmoptoe a sensation of great heat remained in the same parts. Hæmorrhoides and a prolapsus ani were troublesome to a few patients.

The countenances, eruptions, tongue, thirst, the state of the skin and pulse varied as usual, as also did the remissions, and the number of those who recovered.

9.—The patients were very restless in the night, and troubled with scalding of the urine; their sleep was not refreshing; shivering, or alternate chills and heats, very frequently introduced the paroxysms; but in some cases they were preceded by a stiffness of the neck, or an obtuse pain of the head, with sickness at, and pain of the stomach, and bilious vomiting, were more violent than ever. The head was very much disturbed with deafness, giddiness, and

and pain, as were the thorax, abdomen, loins, and extremities; universal pains about the joints, urgent cough, costiveness, and diarrhæa were still frequent; prolapsus ani, and much heat about the anus. Some had a dysentery, and great debility, especially of the loins; the voice became rough, the eyes were very much affected, and even always closed, unless the patient was roused. A few were turbulent and unruly, and in some were observed loss of speech; pulse hardly perceptible, and a turning up and rolling of the eyes—two died. Some complained of numbness, or want of feeling; hectic heats were distressing, very offensive pus mixed with blood, was expectorated, as was also, in some instances, an exceeding viscid brown stuff.—The eruption about the mouth and nose suppurated, and began to dry; and the itch-like eruption scaled off. The countenance continued to be very much diseased, as well as the tongue, which in some cases was very black, much enlarged, stiff, and very painful; in others it swelled much, and was chopt, and the teeth were covered with fordes. Many petechiæ were still observed.

Some now recovered, and many were recovering.

10. Inquietude, universal uneasiness, delirium, and shivering were still frequent. The head, thorax,

thorax, abdomen, loins, extremities, and particularly the joints were still much and variously afflicted, and the pains in those parts exasperated in the same manner as ever by the cough.—Great hoarseness, and a difficulty and pain in speaking, arose from an enlarged black tongue, and a parched sore mouth and throat: some lay on their back, with the mouth open. Tremors and startings were distressing, and petechiæ of different shapes and sizes, with other eruptions of various kinds, were still observable; in one, they spread at the base and became livid. The fallow and much diseased countenance still continued; the tongue and teeth were very foul and black, expectoration was more general; the worst species of which was very yellow and very fetid.

Besides the train of symptoms already mentioned, which accompanied the remissions, there was a sensation as if cold water had been poured on the loins, or down the anterior parts of the thighs. The convalescents gathered strength very slowly; but some recovered.

11. Many passed the night very ill, from violent paroxysms and exacerbations, during which the body was afflicted as usual:—rheumatic pains were very common; delirium, a pulse hardly perceptible, and some died. Relapses introduced by chilliness were frequent, and colliquative sweats with sickness at stomach and reaching

reaching, very distressing. The blood was in a dissolved state; but a few drops of blood from the right nostril, greatly relieved the head. Involuntary effusion of tears, and expectoration continued. Costiveness was very troublesome. There was little alteration on the countenance, throat, tongue, and teeth; only the pellicle began to cast off from the tongue. The eruptions continued. Some convalescents were costive—others had a diarrhœa. Most of them complained of uneasiness, heaviness of the head, giddiness, deafness, languor, and debility.—Some recovered.

12. Inquietude, cough, and the usual pains distressed many in the night; as did also alternate chillness, profuse sweats, and large expectoration, which very much debilitated the sick. Chilliness, or alternate chills and heats, still introduced paroxysms with vomiting and delirium. Exacerbations were very violent, and relapses frequent. Pains in every part, as well as the usual complaints about the head and throat, bitter taste in the mouth, sickness in the stomach, or an uneasy sensation, reaching, diarrhœa, costiveness, suppression of urine, and despondency were frequent. Some were yet troubled with partial and momentary sweats. The various eruptions, appearances of the countenance, tongue, teeth, throat, and expectoration were not altered for the better. Hard lumps were

were voided by the aid of clysters; and in some white specks were observed on the blistered parts: petechiæ still appeared.

Those who had short and uncertain remissions still complained of those symptoms already mentioned; as did the convalescents; and of them it is remarkable, that they often denied their having had any sleep, though they slept well.— Some recovered.

13. Chilliness at times; relapses, with nausea, and bitter taste in the mouth; paroxysms, and exacerbations of all the various pains, and concomitant symptoms already mentioned, were yet frequent, with what the patients called aching of their bones. Costiveness, diarrhoea, universal debility, especially of the joints, and soreness, giddiness, pain of the right ear, and depression, were prevalent. Some were become extremely thin; and numbers were harrassed with the itching eruption. Petechiæ and remissions were accompanied with the usual symptoms. When the pellicle cast off from the tongue, it was red and very sore.

Many of the convalescents were feeble and peevish. Great difference was always perceptible in the pulse, thirst, and state of the skin.— Some recovered.

14. Many of the patients had restless nights from head-ach paroxysms; and severe exacerbations of the various pains and cough: but the
rheu-

rheumatic pains, hoarseness, sore throat, and cough were most frequent and violent in the cold winter months.* Relapses, chillness, bitter taste in the mouth, sickness at stomach, giddiness, heaviness, great debility, languor and depression were distressing. There was a discharge from, and also a pain in the right ear; a free expectoration in some cases only; whenever the pellicle cast off from the tongue, another began to form immediately; costiveness, and diarrhoea continued; there were still petechiæ and other eruptions, and a more florid appearance, without that itching formerly mentioned. The convalescents complained of chillness: Some were still insensible and delirious, and some recovered.

15.—Many passed an indifferent night from languor and head-ach. Numbers were not relieved, but very faint after perspiration in the night; relapse with shivering, chillness, sickness at stomach, violent paroxysms or exacerbations, with delirium, and in the afternoon three drops of blood from the nose; tremors of the hand, petechiæ, pains in the toes, but especially the left; universal soreness and debility, sore throat and depression. The eyes were inflamed in some cases, and in others sore and painful; the discharge from the ear was less, but still troublesome; costiveness and piles were observed.

The

* The fever continued two years in the ship.

The tongue was foul in the morning after sleep, and those who had remissions, as well as the convalescents, were fatigued with the usual symptoms. Some recovered.

16.—There was debility and faintness after profuse sweats, and sensation of coldness while the skin was very hot. Irregular paroxysms and exacerbations; alternate chills and heats, relapses, nausea, head-ach, giddiness, universal pains, especially about the præcordia, with incessant cough, and about the loins, knees, and ancles: great anxiety, and ghastly countenance, were frequent symptoms; some spoke very indistinctly, groaned, and the tongue was black, yet they thought themselves better. Petechiæ, diarrhœa, costiveness, ear-ach, and the itching eruption remained; the tongue was much diseased, and the teeth were foul.

The sick recovered very slowly, but some entirely.

17.—Some passed the night ill from urgent cough, exciting the various pains, and from heat and inquietude; despondency and groundless apprehensions disturbed others; the remission of the cough, pain of the toes, relapses, chillness, or slight rigours, were succeeded by head-ach, ear-ach, pain about the breasts, and uneasiness of the stomach; giddiness, debility, depression, tremors of the hand, numbness of the
lower

lower extremities; costiveness, a laudable expectoration. Thick urine was voided with pain; in some cases the disagreeable sensation was still impressed on the fingers in feeling the pulse; eruptions continued, there was an angry furuncle on the right cheek, and the tongue was streaked black. The countenance, thirst, pulse and state of the skin, differed greatly amongst the patients.

18.—The sick passed a restless night from reaching, belly-ache, partial sweats, and various pains already mentioned; the sides, knees, and toes were mostly complained of; and a dry, teasing cough. Relapses with diarrhœa, head-ach, and various pains. Costiveness continued, and a diarrhœa commenced. The ear-ach, and a watery discharge from the ear, was troublesome. Some had a disagreeable reeking clammy perspiration. A black blister on the tongue, when the patient awoke in the morning, was a common symptom of disease. The sick were generally feeble and dejected, some of them groaning at times. The eruption began to dry and wear off; the tongue, as well as the countenance, was yet diseased; the latter fallow and dejected, and the former of the colour of a pomegranate.

19.—Shivering or chillness, relapses, sickness at stomach, head-ach, sore throat, pain of the neck, pain and swelling of the left ankle, and

universal pains, were all increased by an urgent cough. Languor, dejection, and costiveness were harassing. The countenance was yet diseased: and there was something singular about the eyes of one patient, as if he had been afraid when he was spoke to. The eruption became livid,* and the tongue had still various appearances: as one black pellicle fell off, another formed very slowly on the tongue. Some recovered.

20.—Some passed part of the night ill from vomiting and purging. Relapses; bad taste of the mouth, sickness at stomach, head-ach, sore throat, cough, giddiness, and various pains, particularly of the lower extremities; belly-ach, costiveness, debility, and wandering were very troublesome, and petechiæ were still observable. The eyes were sunk in the orbits, and the tongue was sore, chapt, and foul; the itch-like eruptions were thickest on the extremities; there were furuncles on the shoulders, and exacerbations towards night.

The convalescents recovered slowly.

21.—Head-ach at times; ear-ach, the universal pains, belly-ach, diarrhœa, cough, dejection, and inordinate craving were most frequent. There was a remission by stools and perspiration. The ear continued to discharge, the livid eruption

* Not the itch-like eruption.

tion was troublesome; the countenance was yet diseased, and the tongue foul, sore, and had an uncommon appearance; and the convalescents were very languid, and recovered slowly.

22.—Sickness at stomach, head ach, giddiness, belly-ach, diarrhœa, scalding and high coloured urine, cough, dyspnea, debility, universal pains, especially of the upper extremities, were the symptoms most complained of. There was an unnatural motion of the head and hands, and the tongue was still sore.

23.—Some passed a bad night from belly-ach and diarrhœa. Rheumatic pains, ear-ach, cough, the itch-like eruption, debility, languor, and thirst were troublesome. The tongue was dry, but the expectoration was now free and copious.

24.—The head ached, and was confused; the eyes watered, the cough was urgent, costiveness prevailed, and inordinate craving; despondency, and depression were distressing; the countenance was much diseased, though the patient complained little; the mouth and tongue were foul; the thirst, pulse, and state of the skin varied as usual: one became scorbutic, convalescents recovered slowly.

25.—Reaching to vomit, head-achs, ear-ach, wandering pains, debility, tension of the abdomen, and costiveness; an urgent cough harassed

the sick—one became scorbutic. The tongue was still dry and foul.

26.—Some of the sick passed an indifferent night. Reaching, cough with pain, and soreness about the breast, ear-ach, and prostration of strength and spirits, but especially weakness of the loins were the most frequent symptoms.

27.—Head-ach, costiveness, pain and soreness of the abdomen, sickness and languor from sitting up in the hammoc, cough, debility, and despondency were yet distressing; the eyes were glassy, and the tongue was covered at times with a slimy mucus.

28.—A very bad night from inquietude:—some were languid and depressed, and the countenance was yet wild; many of the convalescents denied that they slept, and the furuncles were not quite healed.

29.—Head-ach, belly-ach, diarrhœa, languor, and the itch-like eruptions, especially about the thighs, were very troublesome. The tongue had the pomegranate-like appearance.

30.—Some passed the night ill from pain and sickness at stomach; others from ear-ach, head-ach, deafness, or costiveness. Though the patient thought himself pretty well, the countenance was yet diseased. The right side of the scrotum of one of the convalescents, appeared excoriated.

31.—Relapse; head-ach at times, ear-ach, pain of the side, belly-ach, a diarrhœa and craving were observed. The skin was yet fallow, but the lips were beginning to recover their natural appearance.

32.—Wandering and delirium in the night; chillness, head-ach, pain of the side, diarrhœa, and depression continued. The tongue was foul.

33.—Severe head-ach in the morning, a bad taste in the mouth, and an expectoration of something disagreeable. Universal pains and foreness, but especially of the side and breast, and costiveness prevailed. The countenance was yet wild.

34.—A paroxysm in the night, ear-ach, costiveness, and diarrhœa still observable.

35.—Bad taste of the mouth, belly-ach, costiveness, diarrhœa, dysenteric symptoms ever since they were last mentioned, and debility were frequent.

36.—Head-ach, cough, costiveness, and a brown tongue, were now the most obvious symptoms.

37.—Pains of the hips and cough were urgent in the night, but the expectoration was easy and copious; universal foreness and languor were distressing. One was very lousy, and several had been so.

38.—

38.—Cough and slight wandering in the night.

39.—Head-ach in the night prevented rest; cough, and expectoration, wandering, diarrhœa, harassed others; the countenance was wild:—one, when interrogated, started up suddenly, and exclaimed in a loud tone of voice, that he was well. His legs and feet had been cold, he said, twenty-four hours.

40.—The night passed ill from raving and inquietude; one patient was greatly emaciated, and lousy. One convalescent was costive.

43.—The costiveness continued, and the itching eruption on the thighs.

45. Sent the costive patient to sick quarters for change of air and milk diet.—The patient with eruptions was recovering, and sent to sick quarters the 48th day of his illness; but he had frequent relapses during that time. There was one man who did not recover until the 56th day of his illness.

SECT.

SECTION II.

OBSERVATIONS *on the preceding* DESCRIPTION.

THERE are some circumstances in the preceding description, which apparently render the ship fever different from those fevers described in the Physical Journal, of which the following are the most striking.

1. The long continuance of the ship fever on board.
2. The great length of time to which it runs in many cases.
3. The relapses which many patients suffered before they recovered entirely.
4. The frequent attacks of it which some men had, when they were in a state of good health.
5. The great variety of eruptions which accompanied the ship fever, particularly petechiæ.

Could the first of those circumstances proceed from any other cause than infection?—Of which, (though the progress and effects were very evident) of its nature or essence, or of the manner of its operating on the system to produce such a variety of symptoms, I am entirely ignorant.

Does

Does not the second originate from the patient continuing, while in a feeble state, to live under the influence of infection?

And do not the third and fourth proceed from the same cause?

Do not the eruptions proceed from the constitution of the patient?—excepting the petechiæ, which frequently appeared with the other eruptions, and seem to be, generally, a concomitant of the ship fever, when it is treated as we were obliged to do,—and I may add, in the usual manners of its treatment by other practitioners.

Whether we have, in our queries, stated the proper causes of those circumstances, is perhaps of little moment; it is sufficient that their existence indicates a virulent infection, and the consequent necessity there is for the utmost exertion of human skill to subdue it, or at least to render it as mild as the nature of things will admit.

C H A P. II.

SECTION I.

OBSERVATIONS ON REMEDIES.

BEING convinced by experience that the Peruvian bark alone could be depended on in the cure of fevers in a hot climate; I could not conceive, notwithstanding the many classes of fevers mentioned by authors, and the various methods of cure they recommend, that the ship fever in America, when it appeared on board the *Juno*, differed so materially from the fever I had formerly successfully managed on the coast of Africa, and in the West-Indies,* as to render my treatment of the one improper for the other. I therefore resolved, after the use of moderate evacuations, to place my dependence

A a on

* See a Physical Journal, kept on board his Majesty's ship Rainbow, during three voyages to the coast of Africa and the West-Indies, in the years 1772, 1773, and 1774. To which is added, a particular account of the remitting fever on board the Weasel, on that coast, in 1769. *Lond. 1777.*

on the bark; and this resolution I adhered to as long as my stock of bark would permit me, which was until the end of December, 1776.— Afterwards it was in particular cases only that I could administer it.† Whether the success of this practice justifies my resolution, I leave to the impartial reader to decide from the whole facts hereafter stated.

But the advocates for camphire, antimony, blisters, &c. may probably deny that I wholly depended on bark, seeing I frequently joined one or other of those along with it.* This argument seems at first sight to have weight; but will avail them little if the following circumstances are duly considered.

First—Until a very short time before the marine died on the 13th of October, I was neither aware that the fever was on board, nor that the patient was dangerously ill; and he took no bark.

Second—Seeing then that the men were daily seized with the fever; and reflecting at the same time, that many of the people might not only be infected, but that it might be a long, tedious, task to subdue the infection, I joined the other medi-

† When we arrived at New-York, bark was a guinea per pound—a price sufficient to tempt the sellers to adulterate it.

* See Case I.

medicines with the bark to make it hold out, and not from an opinion that they would render it more efficacious. The tartar emetic was joined with it as the most convenient evacuant; as it neither added to the bulk of the dose, nor altered the taste for the worse. And surely no man would debar me from keeping up the natural evacuations and secretions, or from promoting them when they were suppressed, during the patient's cure, whatever were the medicines I depended on.—But

Third—Should those circumstances not alter their opinion, I refer them to the cases of the patients differently treated, and to the fifth table, where they will see clearly the different events.

Blisters, when applied in the beginning of the fever, carried it entirely off in many cases,* especially if they were then applied on account of the head-ach,—otherwise they produced little or no effect, either by stimulation, or the subsequent discharge.

SECT.

* This is agreeable to what Dr. Lind has said of Blisters, in his Dissertation on Fevers and Infection.

SECTION II.

METHOD OF TREATMENT WITH BARK.

BEING in so high Northern latitudes, I imagined that the sick in the beginning of their fever would have received benefit by taking away a little blood; but from repeated trials, I found I was mistaken: for though the pulse and other symptoms seemed to indicate the necessity of diminishing its quantity, scarcely one patient could bear the loss of a few ounces, without either becoming languid or faint, and complaining more afterwards of debility than other patients. Thus I was taught to withhold the lancet; and am now thoroughly convinced that it will not be necessary in one case among a hundred of a ship-fever, to let blood.—The appearance of the blood that was taken away, has already been mentioned in the Diary of the Sick List, part I. c. ii. § 2.

I therefore began generally with a vomit of pulv. ipecac. gr. v. and sometimes tart. emet. grß. which was repeated every half hour, until it operated—either of which was wrought off in
the

the common way, with warm water*; and in the evening gave one of the following sudorifics, and sage or mint tea, or barley-water, to drink after it, through the night.

R Sal C. C. gr. v.

Opⁱⁱ, gr^ß. fiat bolus.

Vel Tart. emet. gr. i.

Opⁱⁱ, gr^ß. fiat bolus, hora somni deglutiendus.

Vel Essent. Antim. Huxham, gut. xv—xl

Tinct. Theb. gut. xv—xxx secundum ægri ætatem,

Aq. simp. ʒi^ß.

Syr. com. q. s. fiat haustus, hora somni fumendus.

It was seldom thought necessary to repeat the vomit, in the course of the fever.

If blood was taken away in the morning, the emetic was prescribed a few hours after, and the sudorific at bed-time. Otherwise, when the patients complained in the afternoon, and blood was taken from them, the sudorific only was administered that night, and the emetic next morning.—Unless that procured them several copious stools, within a few hours after its operation, I ordered

R Sal

* A vomit, when given upon the first appearance of chillness or shivering, (agreeable to Dr. Lind's doctrine) entirely cured numbers of patients.

℞ Sal. cath. amar. ℥i.

Cryſtal. Tart. pulv. ℥ij.

Aq. ſimp. bullientis, ℥iv. fiat ſolutio,
et adhuc tepida, bibenda; ac poſtea, ad libitum,
pulmentario tenui utantur.

But in ſome caſes the cathartic ſolution was
divided into four parts, and Cort. Peruv. pulv.
℥i. adminiſtered with each every hour, until it
was all taken. At night the following draught
was frequently preſcribed.

℞ Tinct. Cort. Per. Huxham. ℥iij.

— Serp. Virg. ℥i.

— Theb. gut. x—xxx

Aq. ſimp. ℥iſſ.

Syr. com. q. ſ. fiat hauſtus.

And in ſeveral caſes, when the head-ach was
violent a bliſter was applied to the back.

Next day, being the third, and in ſome caſes
the fourth of the complaint, I preſcribed the
bark.

℞ Pul. Cort. Peruv. ℥i.

Aq. ſimp. ℥iſſ. fiat hauſtus; ſed, ut
viſum, Elix. Vit. gut. vi.—vel Tinct. Theb.
gut. xx. addendo.

This draught was taken every hour, or every
two, three or four hours, as was thought pro-
per; but two ounces of the following decoction
with the elixir of vitriol, or tinct. theb. was more
generally ordered, after the ſame manner.

Cort,

℞ Cort. Peruv. crass. pulv. ℥iv.
Eleuther. crass. pulv. ℥ij.
Aq. simp. cong. iij. coque ad cong. ij.
et cola.

But the bark was always, for the worst cases, prescribed in substance.—In cases of constipation I joined either from ten to twenty grains of rhubarb, or more frequently sal. cath. amar. ℥ij.—℥℔; and sometimes tart. emet. gr. $\frac{1}{4}$ —gr. ℔. When violent pains were complained off at night, I ordered the following anodyne bolus.

℞ Camphor. gr. iv.

Opii, gr. ℔—gr. i. ut visum, f. bol.

And for the convalescents, I ordered an opiate regularly every night.

The drink was either one of those I have already mentioned, or very thin gruel; and those were sometimes acidulated, and sometimes had nitre joined to them.—Clysters and pediluvia were made use of as occasion required.

This was the manner in which I treated the sick until they recovered; but in the mean time I allowed to those patients, whom I thought the properest objects, a little wine from time to time; and when they arrived at a convalescent state, their diet was the most proper that circumstances would admit.

I must, however, acknowledge, that I was much vexed to find the fever was far more obstinate,

nate, and more difficult than it was on board the Rainbow.

Query—Did this proceed from the difference of climate—of the constitution of the patients—or of the nature of the infection?

And what was no less perplexing, the patients would often relapse from very slight causes, when they were nearly recovered.

But the method of treating this disease will be more fully explained in the following cases.

SECTION III.

CASES OF THE FEVER TREATED WITH BARK.

CASE I.

THOMAS. Lawson, a marine, aged about thirty, was seized in the morning of the 21st of October with shivering, head-ach, sickness at stomach, and universal pains; and complained in the afternoon. The pulse was then small and quick.—*Emet. statim cepit; et postea, potione diluente utitur.*

2. The vomit operated well, and he sweated in the night, and seemed a little relieved. *Sal. cath. amar. ℥i. dedi:—4 pm. a severe paroxysm*
came

came on, with shivering for four hours. Sudo-
rificum h. f. deglutiit, et vesicatorium inter scapu-
las fuit admotum.

3. He passed the night very ill from great heat and inquietude. No perspiration. Decoct. co. t. Peruv. \mathfrak{z} ij. Tart. emet, gr. ss. sexties in die cepit.—4 pm. he became chilly again for a little, and thought himself better, though he complained of pain about his eyes, and was much dejected. The pulse was small, and quick, and petechiæ appeared upon him.

4. Perspiration was perceived on him at midnight; and early am. the head-ach and pain about his eyes increased, the countenance was much diseased, and bloated; he raved; the skin was hot, and he was thirsty. Medicinam ut heri cepit. At 2 pm. a severe exacerbation began: he had three stools, and a scalding from the blister. Camphor. gr. v. boli forma, h. f. cepit ac pediluvio utitur.

5. He sweated a little, but passed a very indifferent night from inquietude, and was no way relieved, except of the scalding. Decoctum ex Tart. emet. adhuc cepit, et ex tinct. serp. Virg. \mathfrak{z} ß. et h. f. bolum camphor. sumpsit.—In the afternoon he had less pain, the pulse was firmer, but the petechiæ were more numerous.

6. He became easier after resting the first part of the night, but the pulse was still quick and hard. Omni modo ut heri præscripsi. Be-

tween three and four, pm, a paroxysm came on, which affected the head much: diarrhoea and belly-ache at times.

7. At midnight there was a remission, during which the head-ach, heat and thirst were urgent, and he was harassed with a cough. Decoct. cort. \mathfrak{z} ij. pulv. sal. nitr. gr. x. mis. quinquies in die cepit, et anod. h. f.—vesicatorium renovatum fuit. He was chilly at times through the day, and purged frequently.

8. Head-ach, great depression, giddiness and thirst were troublesome; the tongue seemed striped red and white, and a little enlarged.—Camp. gr. v. quartaq; hora præscripsi cum portione nitrosa.

9. He passed the first part of the night ill from inquietude. AM. he had an unrefreshing sleep, and afterwards rambled much. His voice became very rough, his tongue was black, the teeth covered with fordes, attended with loss of taste; the countenance was fallow, and much bloated, his eyes exceeding dull, the pulse languid, and the skin dry and hot; but he did not complain of any thing.—Pulv. cort. Peruv. \mathfrak{z} i. Tart. em. gr. $\frac{1}{2}$. vin. rub. Oport. \mathfrak{z} i β . tinct. serp. \mathfrak{z} i. quaq; hora præscripsi. PM. he spoke wildly and the tongue was black, but the pulse was firmer, and the voice natural. His body was open.

10. There was a remission all night, and towards morning he slept, having afterwards a copious stool. In the afternoon he was much better, and recovered his natural voice and taste, but he felt the universal pains. *Ut heri medic. cepit, ac camph. gr. v. h. f.*

11. He complained of universal soreness, and took his medicines with reluctance. PM. his head ached at times, and he was giddy at others, uneasy, and desirous to sleep; the tongue was clean, but chapt, and he continued better in every respect, having had two copious stools.—*Medicinas tertia quaq; hora præscripsi, ac bolum h. f. ex anodyn.*—*Diæta tenui sed nutriente utitur.*

12. He perspired and slept in the night, but denied it, and expressed a great desire to sleep; his tongue was dry, and rather black, with fordes about the teeth when he awoke. His body was open, and his countenance became lively. White specks appeared on the blistered part of the back, which discharged freely.—*Decoct. cort. Peruv. ℥ij. pulv. cort. ʒß. tart. emet. gr. 4. quinquies in die cepit, et aliter ut heri et vin. pax. subinde.* PM. he continued recovering, but complained of a cough, probably from being got on deck while the ship was smoking.

13. He had a tolerable night, but denied that he slept; perspired freely, and had a copious stool:

stool: but his bones ached, he said.—*Medic-
nam quater hodie cepit, et anod. h. f.*

14. He rested well, his tongue healed and became clean slowly, but he was sensibly recovering: tho' he was not quite free of the fever until the 22d. The most evident symptom about him of the fever, was his tongue when he awoke, which was covered with a black blister.

He continued to recover until the 30th, when he relapsed with shivering and delirium;—perhaps from his bedding being washed (without my knowledge) and not thoroughly dried, by his messmates, because he was lousy. The symptoms most urgent were, a pain of his side, universal pains, a tooth-ach, and frequent chilness: he was gently vomited and purged, and had a blister applied to his side; the decoction of bark was given after the same manner as before, but he continued to recover but slowly until the 27th, when he was sent to sick quarters at Halifax, for a change of air, and milk diet.

C A S E II.

James Jourd, aged about 29, a very irregular fellow, was seized the evening of the 28th of October, with a shivering for four hours, a sickness at stomach, reaching, and a severe head-ach; which were followed by heat, uneasiness,
and

and inquietude. When he complained on the 29th, he looked wild, and was much dejected. Emet. statim; ac hora somni sal. C. C. gr. v. opii grß. boli forma cepit, superbibendo menthæ infusionem ad libitum.

2. The emetic, which was five grains of ipecacucan, purged as well as vomited him; and he sweat profusely from the bolus, which relieved his head; but the anxiety continued, and the countenance was much diseased. Dysenteric symptoms were distressing, and the pulse was quicker and harder than usual. Dec. cort. Peruv. ʒij . quater in die dedi, et anod. h. f.— PM. he was hot, and looked as if he had been drinking.

3. He passed an indifferent night from heat, thirst, and inquietude; but the griping and purging were abated. Decoct. cort. Peruv. ʒiß . tart. emet. gr $\frac{1}{4}$. ut visum, sexies in die præscripsi. PM. he thought himself better, though he was still very feverish.

4. The purging was troublesome, his skin was hot, thirst frequent, and the pulse hard.—Decoct. sine tart. emet. dedi, opii grß. ut visum. PM. he was better.

5. Thought himself relieved, though he was very hot, thirsty, looked bad, and voided porraceous stools. Ut heri præscripsi. PM. an hæmorrhage from the nose, and the purging abated.

6. He

6. He had only two stools in the night, and rested well; but his countenance still seemed greatly diseased; he was sick at stomach, and reached at times from urgent cough; his tongue was foul, and the thirst great.—*Ut heri præscripsi et vini pauxillum, vel tinct. cort. bis in die.* PM. he was free from reaching.

7. He was easy after a good night, but was still hot and thirsty, and the tongue was dusky in the middle.—*Decoct. cort. ʒij. pulv. cort. ʒß. tart. emet. gr $\frac{1}{4}$. m. quinquies in die bibit, et op. ut visum.* PM. his belly ached a little at times. *Camphor. bol. gr. v. opii gr $\frac{1}{2}$. h. f. Potio fuit diluens et refrigerans.*

8. His countenance and tongue were extremely diseased, he perspired irregularly, his pulse was rather quick and small, but he complained only of being costive.—*Pulv. cort. Peruv. ʒi. tinct. cort. ʒij. tart. emet. gr $\frac{1}{4}$. aq. simp. ʒiß. syr. com. ʒiß. misce: secunda quaq; hora sumpsit. Veficator. inter scapulas etiam admovi.* PM. he was not relieved.

9. He perspired a little in the night, and he had a stool in the morning; the tongue was enlarged, brown, and chopt.—*Serpent. Virg. decoct. et cort. Peruv. (vide Ephemeridem) quarta quaq; h. cepit, et opii gr. i. h. f.* PM. his pulse was quicker and irregular, but he always said he was better, when his health was enquired after. Had several stools.

10. He

10. He had a stool, was delirious, and very restless the first part of the night. AM. the pulse was more distinct, but weaker, and the skin was moderately cool; but he lay on his back, as on the two preceding days, with his mouth wide open, by which means his tongue and throat were so dry, that he could not speak until they were moistened, and then scarce intelligibly. He felt his blisters pain him, and was fond of apples, which I allowed him as he chose. *Omni modo ut heri præscripsi.* PM. he had a stool; there was a black pellicle on the tongue, the pulse was irregular and quick; he had frequent startings, was greatly depressed, and covered with petechiæ of different sizes and shapes. *Pulv. cort. Peruv. ʒij. tart. emet. gr. ʒ. vin. Canar. ʒij. (et tinct. theb. gut. xx. ut visum) secunda quaq; hora sumpsit.*

11. He was much relieved after a good night; he spoke, and was in good spirits; the pellicle, or rather thick black crust, began to cast off from the tongue, and the pulse was firmer.—*Cort. ut heri pomeridiano cepit.* PM. a most violent exacerbation came on, with deafness and an effusion of tears; neither the mouth nor teeth could be kept clean, the pulse was very small, and he was costive.—*Camphor. gr. v. h. f. deglutivit.* I suspected that his messmates had given him grog.

12. A slight remission, the pulse being firmer, and the countenance less ghastly; he was costive, and always said he was better,—*Enema fuit adhibitum, et decoct. serp. Virg. et sp. C.C. gut. xxxv. quarta quaq; hora præscripsi.* PM. he had two stools, in the first there were hard lumps; he coughed and spit up with the utmost difficulty, a blackish and very tenacious stuff, but complained of no pain; spake clearer, and the pulse became stronger.—*Cort. et vin. cepit et camph. gr. vi. h. f.*

13. He passed a good night, and was much relieved; the tongue was very sore wherever the crust appeared. PM. the body was open, and the pulse full and quick.

24. There was a perfect remission after sleeping and perspiring freely in the night. The tongue was now much smaller, but the crust separated very slowly.—*Cort. et vin. ac tart. em. dedi ut heri: diæta tenui et levi utitur.* PM. his body continued open, and he was cool and easy. *H. f. ut postrema nocte.*

15. He passed a good night, sweated, and had a stool, though he was disturbed by the ventilator.—*Ut heri, et gargarisma utitur.* PM. a violent paroxysm, I suspected, was brought on by grog. The countenance was flushed, and the eyes much inflamed; the pulse was rapid, tremors were distressing, and he groaned often.

16. He

16. He slept and had a stool in the night; the skin was hot, the pulse quick and irregular, and he spake indistinctly; the countenance was much diseased; he was again become a little deaf, and though he thought himself better, he was anxious to know if he should recover.—De-coct. cort. \mathfrak{z} ij. pulv. cort. \mathfrak{z} ß. tart. emet. gr $\frac{1}{4}$. misce; sexties in die bibit, atq; tinct. theb. ut visum, et vini pax. subinde. PM. the tongue was black, the groaning continued, and he was inclined to sleep. The body was open. Camp. atq; anod. h. f. cepit.

17. He had two stools, and rested tolerably in the night; he coughed and expectorated a laudable pus, and could now put out his tongue, which was blackish; and though the skin was cool, there was a disagreeable quickness in the pulse. His body was open; and he eat some pancake given him by his messmates.—Ut heri præscripsi.

18. He rested ill from his bones aching, he said, from lying in bed; the tongue had the pomegranate appearance, and the pulse small and quick. Cort. ut heri, (sed sine tart. emet.) et camp. h. f. dedi. PM. he groaned without pain, perspired freely, and began to recover his appetite, but still had many petechiæ on him. Anod. h. f. sumpsit.

19. He complained of hunger, after having two stools, and passing a good night; but one

crust continued to succeed another on his tongue, which gradually became black, though the pulse was moderate, and his skin cool.—*Ut heri omni modo.*

20. His voice was now become natural, but the tongue was sore and black.—*Corticem adhuc cepit.* PM. he was hot and uneasy, I believe from irregularity. *Anod. h. f. sumpsit.*

21. He was easy and cool, after having a stool, and perspiring in the night.—*Medicinam ut 18vo. præscripsi.*

22. The tongue cleaned and healed slowly.—*Ut heri.*

23. He continued to recover. *Ut heri adhuc.*

24. The pulse became quick, the skin was hot, the tongue and mouth were foul, perhaps from irregularity, but he expectorated laudable pus with his cough.—*Decoct et pulv. cort. adhuc, ut 18vo. sumpsit.*

He continued to recover, though slowly, until the 29th, when I sent him to sick quarters; towards night he became a little hot. I gave him the bark through the day, and an anodyne at night.

C A S E III.

Daniel Wilkins, a marine, aged about 28, a very irregular man, complained the 10th of Oct.

1776,

1776, of head-ach and purging.—Emet. statim, ac anod. h. f. cepit.

2. Gripping was most troublesome.—Sal. cath. amar. \mathfrak{z} ij. præscripsi, et anod. h. f. cepit.

3. He complained more of heat, thirst and head-ach, than of purging; his pulse was fuller and quicker than natural.—Sal. nitri, gr. x. quater indie, atq; potion. com. dedi.

4. The head-ach was still harassing.—Ut heri; ac tinct. cort. Peruv. \mathfrak{z} ij. serp. Virg. \mathfrak{z} i. theb. gut. xv. aq. simp. \mathfrak{z} iss. sacch. alb. ad gratum saporem; fiat mixtura, h. f. cepit.

5. He had no complaint. PM. his throat was a little inflamed.

6. The inflammation was much the same, the uvula was relaxed, and he had no appetite.—Cort. Peruv. decoct \mathfrak{z} ij. elix. vit. gr. v. quater in die sumat.

7. He was recovering.—Ut heri, bis in die præscripsi.

8. He returned to duty.

9. He was irregular yesterday, and relapsed at 2 pm. but did not complain until this day pm. of alternate chills and heats; of sickness at stomach, head-ache, universal pains, heat, and great thirst.—Emetic statim dedi; posteaq; potion. diluenti utitur.

10. The vomit operated upwards and downwards, but the head-ach, continued. Cort Peruv.

C c 2 decoct.

decoct. \mathfrak{z} iss. elix. vitr. gutt. v. quater hodie sumat. PM. he was not relieved.—Tart. emet. $\text{gr}\frac{1}{2}$. tinct. theb. gut. xx. h. f. cepit.

11. His head ach remitted in the night.—Ut heri omni modo præscripsi. A paroxysm returned at 4 pm. with pain of the limbs.

12. The head-ach continued with giddiness and a cough.—Cort. Peruv. decoct. \mathfrak{z} ij. tart. $\text{gr}\frac{1}{2}$. ut heri sumat. atq; potion. nitros. Vesic. cat. inter scapulas admovi. PM. no remission.

13. He was relieved of his complaints, and was easy and cool.

14. On recovery, decoct. ut heri, atq; elix. vit. præscripsi.—From 9 am. to 6 pm. he was chilly and giddy.

15. Complained of debility and universal soreness.—Ut heri.

16. On recovery, decoct. atq; elix. vit. adhuc cepit. PM. he was irregular.

17. Continued to recover.—Ut heri. At 5 pm. he became chilly, and his head-ach returned. Tart. emet. $\text{gr}\frac{1}{2}$. h. f. cepit.

18. He became easy at midnight.—Decoct. atq; elix. vit. quater in die dedi.

19. He was hot in the night. The itch-like eruption had been troublesome for some time.—Ut heri.

20. He was recovering.—Decoct. et elix. vit. bis in die sumat.—PM. a paroxysm came on. Tart. emet. $\text{gr}\frac{1}{2}$. h. f. sumat.

21. About

21. About midnight there was a remission, with debility.—Decoct. atq; elix. vit. quater in dies sumat. PM. sickness at stomach, head-ach, and universal pains returned. Anod. h. f.

22. He rested well the fore part of the night, but complained of weakness, giddiness and sickness at stomach; his pulse was quick and feeble. Decoct. sexties in die dedi. PM. no remission, and a diarrhœa was troublesome:—Opii gr. fs. ut visum, atq; decoct. præscripsi: vesicator. inter scapulas admovendum, et sal. C.C. gr. v. opii gr. fs. h. f. sumendus; superbib. menthæ infus. ad libitum.

23. A slight remission, tho' he was disturbed in the night; he did not sweat, but the thirst continued. Ut heri atq; tart. emet. et decoct. quater in die cepit. PM. he was chilly all day, though he was relieved.

24. He complained less of his head-ach, but his skin was hot, the thirst urgent, his pulse quick and small, and he was greatly depressed. Ut heri præscripsi. PM. an exacerbation came on, and his head was confused and disturbed.

25. He was not relieved; an urgent cough, and thirst harassed him; his tongue was dry and white, and he was very feeble. Pulv. cort ʒ ß. et cort. decoct. ʒij. quater in die dedi.

26. He

26. He rested ill from having a bad birth, and complained of much pain and foreness about his breast, especially when he coughed; but the pulse was moderate. Linct. emol. (atq; nit. et tart. emet.) q. n. m. quater in die sumend. superbib. pulv. cort. ʒi. vin. rub. ʒiss. fiat haustus. PM. he vomited twice from the linctus.—Omitted the nitre.

27. He passed a good night, having perspired freely, and had a copious stool. A remission of the symptoms:—PM. a slight exacerbation, but he was sick from sitting up in his hammoc.

28. He had a quiet night, but was very languid, dejected, and looked wild; his body was lax. Rad. serp. Virg. contus ʒiss. aceti lb. iv. coque ut sint colaturæ lb. ii. cui adde pulv. cort. ʒi. fyr. simp. ʒiv.* coch. ij quartaqua; hora capiat, atque vini paux. subinde. PM. his skin was cooler and softer, but the pulse languid, and he was frequently purged. Opii gr. ss. cepit.

29. He complained of weakness and the itching eruption only; but the countenance was much diseased, and his tongue had the pomegranate appearance. Ut heri.—PM. no alteration, but he had four stools. Pulv. cort. ʒi. tart. emet. gr. ʒ. tinct. theb. gut. xx. vin. alb. ʒij. m. fiat

* This is a decoction of Dr. Lind's. See his Dissertation. chap. i. sect. 2.

fiat haustus, secunda quaq; hora sumend.—pomis libere utitur.

30. He complained only of his blister and thirst, but he still appeared to be much disordered; the diarrhœa continued, and his pulse was feeble. PM. the diarrhœa still continued, but his tongue was clean; he became somewhat deaf.—Anod. h. f. cepit.

31. He still looked wild, and was thirsty, craving for different things. Ut heri quarta quaque hora præscripsi. PM. the diarrhœa continued, his lips were regaining their natural colour, but he was otherwise quite fallow. Anod. h. f. cepit.

32. The diarrhœa harrassed him in the night, and he was thirsty. Ut heri atq; opio ut visum. PM. he was much the same. Anod. h. f. atque camp. gr. vi.

33. He passed a tolerable night, and complained little, though he was thirsty, and looked wildly. Ut heri. PM. he had four stools in the day. Anod. atq; camp. h. f. sumpsit.

34. He continued to look fallow and wild, and complained of thirst and deafness; his tongue was white. Omni modo ut heri. PM. the diarrhœa was yet troublesome. Anodynum h. f. ut supra.

35. He did not sleep, but was quiet in the night. Ut heri adhuc. PM. the diarrhœa continued, and he dozed. Anod. ut 33.

36.

36. He had a good night, and complained of nothing; but his pulse was feeble, his countenance diseased, and his tongue brown, and he dozed at times. Ut pomeridiano 29ⁿⁱ. prescripsi. PM. no alteration. Anod. h. f.

37. His cough disturbed him in the night, and he complained of debility, and of pains in the hips; and expectorated pretty freely. Ut heri, sed sine tart. emet. PM. he began to look better, but his cough was urgent. Anod. h. f. cepit.

38. He passed an indifferent night; the cough and expectoration continued. Decoct. ℥ij. pulv. cort. ℥ij quater in die sumat; vino etiam adhuc utitur, et anod. h. f.

39. The cough and expectoration continued, and he had two stools in the night; he raved towards morning, and looked wild:—when asked how he was? he answered, loud—that he was brave, starting up at the same time. Omisissis med. vini paux. secunda quaque hora dedi. PM. he said his feet and legs had been cold the last twenty-four hours. Anodynum h. f. cepit, et pediluvio utitur.

40. He passed a restless night from inquietude and raving, and he was greatly emaciated and lousy. Ut heri præscripsi, tertia quaque hora, et ut 38^{vo}. præscripsi quater in die, et pediluv. et anod. h. f.

41. He

41. He rested badly from raving, and slept am. the expectoration with the cough continued, and his cravings. PM. the cough was troublesome, but his appetite began to return Ut heri.

42. He had a good night, and perspired; he looked better, his pulse was firmer, and his skin warm. Ut heri adhuc. PM. he continued better.—Anod. h. f.

43. He continued to recover, but found the eruption still troublesome.—Ut 39 præscripsi.

44. Recovering.—Ut supra.

45. He recovered slowly.—Ut heri.

46. He continued to recover. Ut heri.

47. Still recovering.—Ut heri.

48. I sent him to sick quarters for the same reason I had sent Lawson and Jourd.

C A S E IV.

William Hurd, aged about 25, of a thin habit, was seized the 11th of October, with head-ach, puking, and universal pains. Emetic. statim dedi.

2. He complained much less, and the vomiting ceased. Sal. cath. amar. \mathfrak{z} i. fump.

3. His head was still affected, though he sweated those two nights past. Sal. nit. gr. x. quater hodie sumatur.—Tinct. cort. \mathfrak{z} ij. tinct. serp. Virg. \mathfrak{z} i. theb. gut. xii. f. h. f. a. h. f. fumendus.

D d

4. He

4. He slept in the night ; but now complained of more head-ach, of pain about his eyes, of heat, thirst, and of his urine smelling strong ; his skin was dry, and his pulse quick and small. Cort. Peruv. pulv. ʒi . elix. vit. gut. vi aq. simp. ʒi ss. misce quater indie sumendus. PM. he was not relieved. Potione subacida utitur.

5. He was much relieved after having passed a good night ; but his head-ach still harassed him, and he was feeble. Decoct. cort. Peruv. ʒij . quater in die præscripti. Diæta sit tenuis et levis. PM. the paroxysm continued twenty-four hours.

6. On recovery. Ut heri præscripti.

7. He complained of weakness. Ut 5 medicinam cepit. PM. he became hot, thirsty, and felt his head light. Cum decocto suo, hora decubendi, tart. emet. $\text{gr}\frac{1}{4}$. dedi.

8. There was a remission at midnight. Ut heri decoct. sumat. PM. He complained of weakness only.

9. He passed a good night, and was easy. Decoct. adhuc cepit.

10. He was recovering. Ut heri præscripti.

11. He was feeble. Ut supra decoct. sumsit.

12. He recovered.

CASE

C A S E V.

John Dance, aged about 30, of a bloated habit, with venereal eruptions, complained, the 12th of October, of the head-ach, sickness at stomach, universal pains, and severe gripes. Emet. hodie dedi.

2. His head was still much affected. Cath. hodie cepit. PM. tinct. cort. \mathfrak{z} ij. ferp. Vir. \mathfrak{z} i. theb. gut. xv. aq. simp. \mathfrak{z} ss. sacch. alb. q. s. m. f. h. s. sumendus.

3. He was relieved in the night of a pain in and about the left eye, which had affected him, but complained of griping and purging. Pulv. cort. Peruv. \mathfrak{z} i. quater indie aq. simp. \mathfrak{z} iss. dedi. PM. he was much better.

4. He was now free from the dysenteric complaints, and was recovering. Decoct. cort. ut Heri præscripsi.

5. He continued to recover. Ut heri decoct. cepit. PM. he became hot and thirsty.

6. He passed an indifferent night from the fever and head-ach. Ut heri. At 8 pm. he was much relieved; the paroxysm continued about 12 hours.

7. He sweated profusely in the night, and his lower extremities were painful. Ut heri adhuc. PM. the perspiration continued all day, and he found himself feeble.

8. He was easy, but continued to sweat. Decoct. atque elix. vit. cepit. At ten this morning a paroxysm returned, with shivering, and he was chilly all day. Tart. emet. gr $\frac{1}{4}$. atque decoctum sumpsit.

9. At 8 last night a remission came on; but the forehead ached, and he was giddy. Decoct. cort. ut supra præscripti. PM. he had an exacerbation of the head-ach for three hours.

10. At 7 p m. an exacerbation of the head-ach came on. Decoct. cort. atque tart emet. sumat. PM. the head-ach distressed him.

11. The head-ach remitted at eight last night, and he continued easy after a good night. Decoct. adhuc quater indies sumat.

12. He was recovering. Ut heri. He thought himself a little chilly in the forenoon, but had no fever on him.

13. He returned to duty.

CASE VI.

William Folkes, aged about 32, was seized the evening of the 13th of October, with chilliness, which was succeeded by a hot fit, and a profuse sweat—he again became chilly, and complained of the head-ach, lumbago, and thirst. His skin was hot, and his pulse quicker than natural. Emet. statim dedi.

2. He

2. He complained of the head-ach being severe, but otherwise he was relieved. Sal. cath. am. \mathfrak{z} ij. smat.

3. He complained of the head-ach and thirst. Cort decoct. \mathfrak{z} iss. elix. vit. gr. vi. quater in die cepit.

4. His head-ach continued. Ut heri. PM. his left ear became painful.

5. There was an exacerbation at 8 last night, which remitted about noon; but the heat and thirst continued. Decoct. adhuc cepit.

6. Yesterday, in the evening, an exacerbation returned, and he became easier at midnight. Medicin adhuc cepit. PM. the head-ach was troublesome at times, particularly the left side.

7. The head-ach remitted at midnight. Decoct. quater hodie sumat. PM. the usual exacerbation returned.

8. His head was still affected, especially towards night. Ut heri.

9. He recovered very slowly. Decoct. adhuc præscripsi. PM. he continued to recover, but complained of a cough.

10. He was recovering. Ut heri.

11. He recovered.

In four days he relapsed, and was much worse than before. I treated him as I had done formerly, only that he took the decoction of bark oftener, and \mathfrak{z} ss. of the powder with every dose. On the 27th day from his being first seized,

seized, he was pretty well recovered, when I sent him to sick quarters for the reason I did the former patients.

C A S E VII.

M. L. aged about 20, who lay in a birth with a sick mess-mate, felt a pain of his back for two days, with loss of appetite, and lassitude; and was then (Oct. 21) seized with the head-ach and sickness at stomach—his pulse was quick, and rather hard. Emet. statim dedi et sudorif. h. f.

2. He found himself relieved after perspiring in the night. Sal. cath. am. \mathfrak{z} i sumat ac sudorif. h. f. repetivi. PM. he neglected taking the salts, and there was an exacerbation. Vesic inter scap. admov.

3. He complained greatly of the head-ach, and was much depressed. Sal cath. \mathfrak{z} i. crystal. tart. \mathfrak{z} ij. cepit. PM. a remission came on.

4. He had a pain, at times, over one or the other of his eyes; he was feeble and dejected, and his pulse varied. Decoct. cort. \mathfrak{z} ij. sal. nit. gr. x. quater in die cepit. PM. there was no alteration.

5. The pain affected the right side of the head, eye and neck; and darted through to the left temple, upon turning his head—he was
costive.

costive. Sal. cath. am. $\frac{3}{4}$ ss cepit, aliter ut heri. PM. the pain continued.

6. His head ached on turning it round. Decoct. atq; elix. vit. gt. xi. quater in die sumat. PM. he complained of more head-ach after drinking a little grog. Pediluv. utit.

7. The head-ach, debility, and dejection still continued. Ut heri.

8. There was no alteration, and he was costive. Ut heri atq; cath. leni.

9. He complained much of his head-ach at times, and found it preceded by a stiffness of his neck. Decoct. cort. atq; nit. sumat quater in die: et vini pauxillum subinde.

10. An exacerbation of his head-ach returned at 4 am. without the stiff neck. Ut heri sed decoct. sexties atq; tart. emet. gr $\frac{1}{4}$. ut visum, dedi. PM. there was a remission at noon, and he was feeble and giddy.

11. He was easier, but complained of pains in his joints, and sickness at stomach. Decoct. cort. atq; elix. vit. aliter ut 9 præscripsi.

12. The sickness continued, with an uneasy sensation about the præcordia, and pain of the neck. Pulv. ipecac. gr. v. dedi. PM. he was much relieved by the emetick. Sal. C. C. gr. opii grs. in boli forma h. s. deglutivit.

13. An exacerbation of the head-ach returned at

at midnight, and his joints were feeble. Decoct. sexties in die sumat, atq; vin.

14. He complained of heaviness, giddiness, debility, and depression. Ut heri. PM. an exacerbation of the head-ach came on. Anodyn. h. f. cepit.

15. He passed a bad night from the violence of the head-ach; a sore throat, (which had been troublesome for two days before, though he did not mention it) and great depression. Vesic. inter scap. admovi, camph. gr. 4, tart. emet. gr $\frac{1}{4}$. boli forma quarta quaque hora deglutiit superbib. cort. decoct. \mathfrak{z} ij.—aliter ut 9. AM. he felt himself rather cold; pm. he was relieved.

16. He was hot, thirsty, and costive. Pulv. rhæi 3ss. cepit. PM he was easy, but his skin was hot, and his pulse quicker than natural.

17. There was an exacerbation of the head-ach, with heat and thirst—he was much depressed; uneasy at the scrobiculus cordis, and his tongue was sore and streaked black. * Decoct. acet. rad. serp. Virg. cochlear ij. Ut pro Wilkins 28th ægrotationis suæ quarta quaque hora dedi atq; vini pauxillum. PM. his pulse was quick, irregular, and accompanied with tremours; the skin was hot, and impressed

a

* Vid. 28vo. die Wilkins—Case III.

a disagreeable sensation on the fingers; and he was sick at stomach.

18. He passed the night ill with gripes, sickness and reaching, and he sweated. The blister discharged freely. There was a remission. Pulv. cort. Peruv. \mathfrak{z} i. tart. emet. gr. $\frac{1}{4}$ tinc. theb. gut. xv. vin. alb. \mathfrak{z} ij. secunda quaq; hora dedi. PM. he was much griped and colicive. Sal. cath. am. \mathfrak{z} ss. cepit, he being averse to a clyster. Vini alb. \mathfrak{z} ij, secunda quaque hora dedi.

19. He passed the night indifferently, from the pain of his back. Cort. ut heri tertia quaq; hora fumar. PM. he had very little sickness at stomach, and was in good spirits.

20. His tongue was foul, and he was thirsty, when he awoke, and he complained of debility; the blistered part pained him. Corticem atque vin. adhuc quarta quaque hora, et anodyn. h. f. capiat.

21. He was recovering, but his neck pained him a little. Ut heri præscripti.

22. He continued to recover.—Corticem ut supra ter in die capiat.

23. He was feeble. Corticem bis in die cepit, et vino, ac diæta idonea utitur.

He continued to recover, though slowly, and followed this regimen until the 28th, when he was sent on duty.

C A S E VIII.

Wm. Elliot, a marine, about thirty-two years of age, (a strong man, whose birth was contiguous to a person ill of a fever) was seized on the morning of the 14th of Nov. with chillness, head-ach, and lumbago, and afterwards with alternate chills and heats; his pulse being somewhat quicker and harder than natural. Emet. statim sumat; et h. f. sal. C.C. gr. v. opij grß. boli forma præscripsi, superbib. menth. infus.

2. His symptoms were a little relieved by a free perspiration in the night, and two small stools; his tongue was white. Sal. cath. amar. ζ i. sumat. PM. he complained of alternate heats and chills, of universal pains, head-ache, and thirst; his skin was hot and dry, and he was much dejected. Vesicator. inter scapulas ad-movi, ac bolum sudorificum, h. f. dedi.

3. He passed a restless night from head-ach, pain over his eyes, lumbago, flying pains, and an urgent thirst, though he perspired freely, and the pulse was moderate, his tongue continued foul. Medicinam quam pro Wilkins ægritudinis suæ 28vo. (Case III.) præscripsi, cepit, quarta quaque hora, atque sp. C.C. xxxv. superbib. potione diluente. PM. he had a very copious stool, and was giddy.

4. He

4. He complained of the head-ach, especially about his eyes; of pains in his left side and back, of an ill taste in his mouth, and that his tongue was foul. Sal. cath. ʒvi. hodie capiat. PM. the medicine operated, but a violent exacerbation, particularly of the head-ach, came on; his eyes were ready to start out of his head. Medicin. ut heri, hodie, sine sp. C. C. octava quaque hora sumat.

5. He sweated, and the head-ach remitted about midnight; his lumbago was troublesome, and a dysuria (probably from the blister) commenced, and his tongue continued very foul.—Pulv. cort. ʒi. cort. decoct. ʒij. tart. emet. gr $\frac{1}{4}$. secunda quaque hora capiat. PM. an exacerbation began at ten this morning, with a violent shooting pain of the left side; but he now complained less of the lumbago and head-ach: his body was lax: bolum sudor. h. f. repetivi.

6. At midnight there was a remission; he sweated as usual, and his pulse continued softer; the pain of his side affected his bowels at times. Ut heri præscripsi. PM. the exacerbation began at two PM. during which the head-ach was the most severe symptom, attended with a cough; but the body continued lax. Bolum h. f. cepit.

7. There was a remission at midnight: he complained of the back part of his head and neck being painful: the diarrhœa continued

moderate. *Medicinas ut heri cepit.* At one pm. a paroxysm came on. *Anod. h. f. cepit.*

8. The remission began as usual about midnight, with a free perspiration, but he still complained of his side. *Ut heri præscripsi, mane et vespere.* PM. he had a slight paroxysm between four and six.

9. At three this morning a slight paroxysm came on, which terminated by perspiration in the forenoon. *Medicinam adhuc sumpsit mane et vespere.*

10. A paroxysm returned at three this morning, with pain of the side, thirst, and heat, which went off by perspiration. *Ut heri.* PM. he complained of the head-ach. *Decoct. serp. sexta quaque hora cepit.*

11. He sweat profusely at night, and had three stools; he now began to recover strength, tho' slowly. *Corticem atque corticis decoct. bis in die cepit, et anod. h. f.*

12. He sweated profusely, and had a restless night. *Ut heri.*

13. He was sent to sick quarters, in a promising way of recovery; and he, as well as the other patients whose cases have been related, was soon restored to perfect health.

C A S E IX:

John Audley, aged about 30, a strong man, and irregular at times, was seized the evening of the 22d of Dec. 1776, with shivering, head-ach, and universal pains, particularly in his side. Emet. statim, ac essent. antim. gut. xxx. tinct. theb. gut. xxx. h. f. superbib. menth. infusionem capiat.

2. He perspired in the night, and was a little easier. Sal. cath. amar. i. crystal tart. ʒij. dedi. PM. he complained more of the pain of his side: vesicator. lateri fuit admotum, et sudorific. h. f. repetitum.

3. He was relieved of the pain, but his countenance was much diseased. Cort. decoct. ii. tart. emet. gr¹/₄. quater in die cepit. PM. he complained of a severe cough. Anod. dedi h. f.

4. At eight last night a paroxysm came on, during which the heat and thirst were great; the cough was urgent, and respiration laborious.— Ut heri, secunda quaque hora præscripsi. At ten AM. there was a remission, and he had no pain in the afternoon.

5. A paroxysm returned last night, but I could not learn at what time. He had a very bad night from inquietude, the cough, pain of his side, and dyspnœa. AM. he wandered,
breathed

breathed with much difficulty, looked ghastly, and in the afternoon muttered or sung inarticulately. *Jul. cardiaci ʒij. secunda quaque hora cepit; et vesicator. lateri renovatum fuit.*

At 6 pm. he died.*

SECTION IV.

METHOD OF TREATMENT WITH ANTIMONIALS, CAMPHIRE, BLISTERS, &c.

THE same evacuations were now procured, and after the same manner as in the bark treatment, except the letting blood, which I had now entirely given up thoughts of, unless there seemed to be an absolute necessity for it†. The patients enjoyed every other advantage, and in a greater degree than they had done under the bark

* This is the only case out of 216 wherein the bark can be said to have failed; and had it been given in substance, the patient might perhaps have recovered.

† The bark method of treatment preceded this, so that none of the patients who were treated in the manner now to be described were let blood in the beginning of the fever, except Wm James, a marine, one of the first who were seized with it.

bark method,—as apples, wine, oranges, and limes ; of the two last of which we got a number out of a prize, as also a little wine. The evacuations were as carefully attended to, and either restrained when they were excessive, or promoted when they were suppressed, as they had been in the former method, and blisters were applied as freely. The camphire and tartar emetic were generally prescribed as in the following mixture.

Mixtura Febrifuga.

℞ Camphor, ʒiʒ.
Tart. emet. gr: viij.
Sacchari albiss. ʒijʒ.

Bene simul triturenter, deinde gradatim sago† tenuissimi uncias triginta adde; atque, si visum sit, Sal. Nitri pur. ʒijʒ.—fiat mixtura, à cochleari uno ad tria, vel quatuor, pro dose :—which was repeated repeated every one, two, three, four, five, six, seven, or eight hours.

In a few cases, from twenty to thirty grains of theriac, with three grains of camphire, was administered every six or eight hours, instead of the mixture; and in some of the cases the tartar emetic and nitre were given without camphire.

CASE

† This suspended the camphire as well as a solution of gum Arabic.

C A S E X.

Wm. James, marine, aged about 36, naturally slothful, and a tippler, was seized, on the 5th of October, 1776, with head-ach, thirst, pain of the left eye, when he looked at any object, and giddiness, but he did not complain until the 6th. His pulse was rather quick and full. Mitte sang. ℥xii. ; et duabus horis elapsis. cath. exhibe. But so much blood was not taken from him, on account of his becoming faint.

3. He complained of being weak and faint, which I imputed to his natural indolence. Elix. vit. gut. xx. bis in die sumat.

4. He had a diarrhoea and was still faint.—Pulv. ipecac. gr. iij. opij grß. fiat bolus, quater in hodie sumendus.

5. His complaints were numerous; he had an ague, he said, in the night, and bilious vomiting in the morning. Tart. emet. grß. secunda quaque hora capiat.

6. He was seized with vomiting, and purging. Ut 4to præscripsi.

7. He still complained of weakness, but from his bad character, and so little appearance of disease about him, I suspected that his illness, in a great measure, was counterfeit. Tinct. cort.

℥ß.

3iß. elix. vit. gut. v. capiat bis in die, and portable soup.

8. I was informed that he was delirious in the night; he continued restless, his pulse was small and slow, and his skin rather cold. I ordered him a spoonful of a cordial julep frequently, and wine in his sago; blisters were applied between his shoulders and to his ancles. PM. he perspired, but wandered at times, and complained of weakness.

9. He died this morning.

Few having had the fever before this man, and these having been relieved by very simple means, I did not think the infection had been received, or that he was in danger, until the 8th, when it was observed too late.

C A S E XI.

Wm. Hardie, aged about 32, was seized the 12th of January, 1777, about noon, with shivering, head-ach, and universal pains. Emetic. statim cepit.

2. He complained much of debility, giddiness, and thirst, and his tongue was foul. PM. his left ear ached, and discharged freely. Cath. lene sumpsit: vesicat. inter scapulas admovi.—Towards night he became speechless, his face

F f

dis-

distorted, and he was delirious. *Sudor. h. f. et opij gr. i. dedi.*—About two hours and a half after taking his medicines he became quiet, and seemed to sleep. The delirium returned more violent at midnight; and notwithstanding the opiate was repeated, he continued delirious, and died at three on the third day; not having been ill 48 hours.

C A S E XII.

John Birridge, aged about 40, was ill of shivering, head-ach, reaching and vomiting, several days before he complained (which was on the 19th of Feb. 1777) of being hot and cold alternately, and of great debility. The pulse was quicker, and the skin hotter than natural. *Emet. statim dedi.*

2. A severe pain seized the left side, and thirst was urgent in the night, while a frequent cough increased the head-ach. Two spoonfuls of the febrifuge mixture was prescribed every two hours. P.M. his countenance was wild, he wandered, had tremors at times, complained of great languor, giddiness, and incessant thirst; his stools were watery. *Vesicat. inter scapulas admovi, et theriac. Androm. gr. xx. camph. gr. iij. boli forma, repet. 8va quaque hora.*

3. He

3. He had partial momentary sweats during the night, but was not relieved by them. Ut postrema nocte præscripsi. PM. the watery stools continued, and petechiæ appeared.

4. He rested ill from wandering and inquietude, the skin was hot, the pulse small, the tongue whitish, and he was costive. Ut heri. Enema ut visum sit injectum. PM. no better.

5. He continued to ramble, his countenance was footy, he complained of heaviness about the heart, and thirst, though the pulse was moderate, and his body was open. Ut 2da præscripsi, ac vini pauxillum dedi. PM. great pain about the scrobiculus cordis, from an incessant cough, which brought up phlegm only. Vesic. pectori admovi, et anod. h. f.

6. He was somewhat relieved after a quieter night than the two preceding; the tremors or catchings had left him, and his blisters pained him; his tongue was white. Medicinas ut heri cepit, et diæta nutriente atq; vino utitur.

7. Last night the rambling and inquietude returned; the delirium now increased, and he complained of cold. Theriac. Androm. 3ß. camph. gr. ij. fiat bol. sexta quaq; hora sumend. PM. he became gradually worse, had a ghastly countenance, the pulse became very feeble, the tongue was brown, there was a rattling in his throat, and he was costive. Enema commune fuit injectum.

8. He passed a bad night from groaning and inquietude, and he had two stools in the night. His pulse was imperceptible at times; he rolled about his eyes, and turned them up while the delirium continued. Pulv. cort. Peruv. ʒi . tart. emet. $\text{gr}\frac{1}{4}$. vin. rub. Oport. $\text{ʒi}\beta$. m. fiat haustus secunda quaq; hora præscripsi —He took this medicine but once, for he died 7 pm.

C A S E XIII.

Thomas Baker, a prisoner, who had been in the West-Indies, had been ill, and costive five days before he complained; and even then gave a very unsatisfactory account of his illness: his head ach had been relieved the day before by an hæmorrhage from the nose, (viz. March 29, 1779): his countenance was fallow, and much diseased; he complained of universal soreness and pain about the scrobiculus cordis, the pulse was quick but small, and the tongue was white. Sal. cath. amar. ʒi . cepit statim, (which gave him several stools); postea mixt. febrifug. $\text{ʒi}\beta$. quater in die dedi, atq; potione com.

2. The præcordia were now relieved, but he complained of universal pains; the pulse was more moderate:—Mixtur. febrifug. tertia quaq; hora præscripsi.

3. Severe

3. Severe head-ach, uneasiness, and thirst harassed him, and his pulse was still quick. Ut heri.—PM. he was greatly dejected, and breathed disagreeably through his nose. Theriac. And. gr. xxv. camp. gr. ij. boli forma octava quaq; hora cepit; et vesiccat. inter scapulas admovi.

4. He passed the night very ill from inquietude and a delirium; his respiration was still disagreeable, and his countenance was ghastly. Ut postrema nocte, hodie præscripsi sexta quaq; hora. At one pm. he died.—I was informed that he had had a fever not long before, on board the sloop he came from; and that the master died on his passage from the West-Indies. The man was lifeless and dispirited before I saw him;—the thoughts of his being a prisoner might add to his depression, though he was as well treated as our own men.

C A S E XIV.

Anthony Gafford, aged about 23, a strong man, and often irregular, was seized the 12th of March, 1777, with shivering, head-ach, sickness at stomach, and universal pains, especially of the loins, but did not complain until the 13th.—Emet. statim, ac sal. C.C. gr. v. opij. grß. h. f. in boli forma cepit.

2. He

2. He passed a restless night from coughing; the head-ach continued, his tongue was foul, and his pulse quick. Sal. cath. amar. \bar{z} i. cepit; et postea mixt. febrifug. cochlear. iv. quater in die. PM. he complained of universal foreness.

3. The cough disturbed him much in the night, but his pulse and the head-ach were now moderate. Mixtur. ut heri sumpsit. PM. no alteration.

4. His head was much affected in the night by the cough, and there was an exacerbation of the heat and quickness of the pulse. I suspected he had been irregular. Mixtur. adhuc cepit.

5. He passed the night ill from a pain in the left side, which was increased by his cough; he was very restless and complained of thirst; and the teeth were covered with fordes. Mixtur. ut supra, et linct. emol. ad libitum utitur. Veficat. lateri etiam admoui.

6. Cough, inquietude, and rambling prevented his sleep; respiration became laborious, his tongue was black, and the pulse was not perceptible. Pulv. cort. Peruv. \bar{z} i. tart. emet. grⁱ. m. vin. alb. \bar{z} ij. tertia quaq; hora præscripsi.— One pm. he died.

C A S E XV.

Wm. Watkins, aged about 37, was seized on the 13th of April, 1777, with a violent head-ach,

ach, sickness at stomach, and lumbago; he told me he was subject to fits. Emetic. statim cepit, et sudorific. h. f.

2. He was not relieved, and the pain was chiefly in the back part of his head. Sal. cath. ℥i. hodie cepit, ac sudorific, h. f.

3. The head-ach still continued. Vesicator. inter scap. admov. et mixtur. febrifug. quater in die cepit.

4. He was very hoarse, and had an urgent cough. Ut heri præscripti.

5. No alteration for the better, and his pulse was full. Mitte sang. ℥viii. detrahare fit; et exhibe mixtur. ut heri, ac anodyn. h. f.

6. He complained of griping, and a swelling of the abdomen, disturbing him in the night.— Sal. cath. am. ℥i. mane; deinde mixtur. ut antea. PM. he had no complaint, but his countenance was wild, and his pulse quick. Camp. gr. iv. opij gr. β. dedi.

7. He began to rave, and became very restless at midnight; the delirium continued thro' the day and he looked at his fingers. Mixtur. adhuc cepit. PM. effusion of tears: camphor. bol. atque op. h. f. cepit; ac vesicatoria brachij interius admota fuerent.

8. The delirium was less, and he passed the night more quietly, but his countenance was diseased, his respiration short, and the pulse was small. Theriac. And. gr. xx. camphor. gr. iij.
fexta

sexta quaq; hori præscripsi. PM. no alteration, only the cough was more urgent: ut 6ta h. f. præscripsi.

9. He passed a restless night from an increased delirium; the countenance was ghastly, and his tongue brownish. Ut heri: vesicat. talis internis etiam adinovi. PM. he was comatose and delirious alternately.—Had involuntary stools for some days.

10. The blisters were neglected to be applied yesterday; the pulse was not perceptible, his teeth were covered with fordes, and his tongue was black. Ut heri præscripsi.

11. He was quieter, and rational at times; but he was quite languid, and his pulse scarce perceptible. Ut heri medicinas cepit. At 7 pm. he died.

C A S E XVI.

Stephen Hutchins, about 38 years of age, on the 19th of Dec. 1777, was seized with shivering, a bad taste in his mouth, head-ach, lumbago, and pain, with a sensation of swelling about the epigastric region, but he did not complain until the 20th. Emet. statim cepit. The emetic operated both ways.—Tart. emet. et opij ana grß. h. f. dedi.

2. His head-ach and pain in the back were relieved by perspiration in the night; but he was
now

now harassed with an urgent cough, and a fore-
ness at his stomach. *Mixtur. febrifug. ter in
die; linct. emol. subinde, ac sudorific. ut post-
rema nocte præscripsi.*

3. He passed the night ill from inquietude;
and the cough, head-ach and lumbago distressed
him at times; he was chilly and hot alternately,
the tongue was red in the middle, and thirst was
troublesome. *Mixtur. quater hodie cepit, ac
anodyn. h. f.* About two in the afternoon he
had a slight remission.

4. About ten last night the exacerbation re-
turned; a tinnitus aurium, foreness, and entire
deafness of the left ear, which had been a little
painful for two days; the pulse was slower than
natural, and the countenance fallow and diseased.
Mixtur. adhuc cepit, et anod. h. f. tussæ urgent.

5. He complained most of his ear and deaf-
ness. *Ut heri præscripsi.*

6. An exacerbation came on about ten last
night, with great pain at the scrobiculus cordis,
which went quite round the thorax; he had a
teasing cough, an unnatural respiration, and was
much depressed. *Ut heri, et tinct. serp. Virg.
3i. 11 am. et 4 pm. dedi; vesicat. etiam dextro
epigastrio admovi.*

7. At 8 am. an excruciating pain seized the
right side after he had passed a very restless
night:—*opij gr. i. deglutivit, ac volatili lini-
mento linivit:—mixtur. tertia quaq; hora præ-*

G g

scripsi.

scripsi. Enema ut visum, et opij gr. i. Et sanguinis ℥iv . mitte. PM. no remission of the pain, the part was swelled and tense, the breathing laborious, the alæ of the nose were distended, the face was flushed, and covered with sweat, and the pulse was small.

8. After the third clyster he had a small discharge, with great flatulencies, which relieved him, and soon after he had several white frothy stools: however, he passed an indifferent night, neither the pain, hardness, nor swelling being carried off: his throat rattled in his sleep; am. he was faintish when taken out of bed, but he grew better, and held out very well to sick quarters, where he afterwards died, as I was informed.

C H A P. III.

T A B L E I.

Points out the superiority of the Bark, over all other methods of managing the Fever on board the Juno.

Under the Bark Method.		Under all the other Methods.	
Were treated on Board.	Died on Board.	Were treated on Board.	Died on Board.
216	1	296	6

TABLE

T A B L E II.

Points out the success of the methods of treating
the Fever at New-York and Rhode-Island
Hospitals.

To New-York Hospital, and treated with cam- phire, &c.		To Rhode-Island hospi- tal, and treated with antimonials, &c.	
Were sent of fev. patients	Died	Were sent of fev. patients	Died
36	5	24	4
15 of whom were convales- cents.	4 of whom were conva- lescents.	1 of them went from a prize, & I did not see him.	1 was sent from a prize, and I did not see him.

TABLE

T A B L E III.

Shows the proportion of deaths under the different methods of managing the Fever.

Fever patients treated with Bark.	Fever patients treated in all the other methods on board the Juno, at New York, and Rhode-Island hospitals.
216 *	296
One died.	15 died—near 1 in 19.

* A number of patients took bark and recovered, after the time of my general method of treatment with the bark expired, who are not here included, but are classed with those under the other methods of treatment.

T A B L E IV.

DISEASES on Board His Majesty's Ship JUNE,

From AUGUST, to DECEMBER, 1776.

DISEASES.	August.	Sept.	October.	Novemb.	Decemb.
Fever	34	15	20	23	10
Dysentery		15	1	2	
Belly-ach	1			1	1
Costiveness	1	1	1		
Diarrhœa			1		
Pain of the Stom.					1
Reaching		2			
Scurvy	89	5	2	1	5
Rheumatism		2	4	2	4
Gout		1			
Head-ach		1	1		5
Cough		5	1	2	3
Sore Throat		2		1	5
Hemorrhage					1
Deafness				1	2
Ear-ach			1		1
Epilepsy	1	4			
Ophthalmia			1		
Blindness			1		
Nephritis				1	
Diabetes			1		

TABLE IV. CONTINUED.

DISEASES.	Aug.	Sept.	Oct.	Nov.	Dec.
Eruption		1		3	
Impetigo			1		
Itch		1			1
Scald	1		1		
Contusion	11	8	9	10	3
Strain	1	3	1	1	2
Rupture		1			
Fracture			1		
Excoriation	1	1		1	
Wound	3	1	1		1
Inflammation	2		2	1	3
Furuncle			1		
Abscess	1				1
Ulcer	4	3	2		1
Accidents					1
Drowned		1			
No. of Patients	150	73	54	50	51
No. of Deaths		2			1
No. of Patients sent to Hospitals or sick Tent.	27	24	11		

TABLE

TABLE V.

*DISEASES on Board His Majesty's Ship JUNO,
From JANUARY to MAY, 1777.*

DISEASES.	Jan.	Feb.	March.	April.	May.
Fever	21	13	41	14	8
Peripneumony			1		
Erysipelas		1			
Dysentery		2			
Belly-ach	2		2	1	1
Diarrhæa	1				
Pain of the Stom.			1		1
Scurvy	2	1		1	1
Rheumatism	1	2	3	3	5
Head-ach	1		1	3	1
Cough	6	13	17	1	
Sore Throat	5	2	8	4	
Hæmoptoe					2
Consumption			1		1
Deafness					1
Ear-ach	1			7	1
Epilepsy	1				
Nephritis	1				
Diabetes	1				
Suppres. of Urine		1			
Hemorrhoides					1

TABLE V. CONTINUED.

DISEASES.	Jan.	Feb.	March.	April.	May.
Eruption	1	1	2	1	1
Scald		2	2	4	1
Contusion	11	10	7	8	3
Strain	5	1	3	1	2
Rupture			1		1
Dislocation		1		1	
Fracture			2		1
Excoriation	1				1
Wound		3	2	4	
Inflammation	2	3	6	4	3
Abscess		1	4	1	
Ulcer	3	6	9	10	2
Drowned	1				
Number of Patients	67	64	113	68	38
Number of Deaths	2		2		1
No. of Patients sent to Hospitals	7	5	8		

H h

TABLE

T A B L E VI.

Shewing the Event of the particular Diseases.

DISEASES.	Number.	Number sent to Hos- pitals.	Deaths on Board.
Fever	199	7	3
Peripneumony	1		
Erysipelas	1		
Dysentery	21		
Belly-ach	9		
Costiveness	3		
Diarrhoea	2	1	
Pain of the stom.	3		
Reaching	2		
Scurvy	107	38	
Rheumatism	26	8	
Gout	1		
Head-ach	11		
Cough	48	9	
Sore Throat	27		
Hæmorrhagia	1		
Hæmoptoe	2		
Contumtion	2	1	1
Giddiness			
Deafness	4		
Ear-ach	11		
Epilepsy	6	3	
Ophthalmia	1		
Blindness	1		
Nephritis	2		

TABLE VI. CONTINUED.

DISEASES.	Number.	Number sent to Hof- pitals.	Deaths on Board.
Diabetes	2	2	
Suppres. of Urine	1		
Hemorrhoides	1		
Eruptions	10		
Impetigo	1		
Itch	2		
Scald	11		
Contusion	80	4	
Strain	20		
Rupture	3	1	
Dislocation	2		
Fracture	4	1	
Excoriation	5		
Wound	15		
Inflammation	26		
Furuncle	1		
Abcesses	8		
Ulcer	40	7	
Accidents	1		1
Drowned	2		2
Whole Number	728	82	7

T A B L E III.

Shews the Number of Fever Patients for Ten Months, and the Proportion of Deaths.

Number of Fever Patients for Ten Months; besides Patients with Rheumatism, Cough, sore Throat, and Ear-ach, which were all accompanied with Fevers, & amount to 112	Died on Board.
199	3
Proportion of Deaths	One in $66\frac{1}{3}$.

Of the three who died of the fever, two were in a desperate state before they applied for assistance; and the other met with an accident while he was ill, so that the bark in neither case had fair play.

Of the fever patients sent to the hospital, one was in a convalescent state, and another was sent the day after he came from a tender. With scurvy, 27 of the 38 were sent to the tent for the benefit of air and milk. Some were sent thrice for this complaint.

O B-

OBSERVATIONS, &c.

PART II.

INTRODUCTION.

TO ascertain the efficacy of the Bark in curing the ship fever,—when his Majesty's ship the Edgar was put into commission, on the 25th of May, 1779, (regardless of the expence which I knew must attend the experiments, tho' I could ill afford it) I provided myself then, and from time to time since, with bark for that purpose; and finding it, in a very extensive practice during this period, succeed to my expectation, I can with pleasure recommend it as a cure for *this fever*, as well as for the *tertian* of hot climates. The following pages therefore, as they contain an epitome of our management of the fever, from the above date, to the 31st of July, 1780, 'tis hoped will not be unacceptable to the reader.

In support of this fact, I could insert hundreds of cases in which we have administered bark, and the

the names of several young gentlemen of the profession, who have been witnesses of our management of the fever, besides the names of other gentlemen, who by our recommendation have experienced, in their own practice, its happy effects ; but as doing this might appear ostentatious, if not tiresome to the reader, we shall only relate a few cases to illustrate the subject, and seldom mention other practitioners. As the last argument on the subject, we have subjoined a few tables, on the same plan as those which are annexed to the preceding observations.

By the positive evidence which may, we presume, be fairly collected from our Physical Journal, and the former part of this work, but more particularly from the clearest negative evidence in the following sheets, 'tis hoped we have satisfactorily proved our assertion at the end of the Introduction to the Observations, intimating the fatal effects of delaying so long to give bark in the fever.

The reader is not to expect another description of the fever ; a more faithful one than the preceding we cannot present him with.—'Tis true we could arrange them in a different manner, but we could not render them more distinct. A few symptoms, however, which occurred on board of the Edgar, that did not appear, at least were not observed on board of the Juno, are inserted diurnally, previous to the relation of the management of the fever.

It

It will seem paradoxical to mention that bark is a cure for the ship-fever, and afterwards to allow that patients died of this fever, where bark was administered. When I spoke of bark as a cure for the ship fever, I meant, comparatively to what other medicines I have hitherto known to be used for that purpose. A never-failing remedy for any disease, is, I believe, unknown to mankind; if any such there is, misconduct too often renders it ineffectual. Thinking it therefore of more importance for the instruction of young practitioners, to lay before them a few cases at length, which terminated fatally, than to present them with the hundreds which yielded to the bark, we have in the sequel, as in the former observations, related those particularly; trusting that our candour will meet with benevolence from those who may think we have erred in our practice.

That it may be seen wherein we differ in our management of the ship fever from many eminent physicians, we shall concisely lay their theory and their method of treating it before the reader. But it will be proper first to inform him briefly how the *Edgar* was manned, and by what means the infection was brought on board, and continued active so long.

C H A P I.

How the EDGAR was manned, and by what Means the Infection was brought on Board, and kept active so long.

THE Edgar was built at Woolwich, and launched June 30th, 1779; and if credit can be given to reports, about 2000 men entered for her in different parts. Certain it is, however, that the marines excepted, which came partly from all the three divisions, most of her men entered for her in, and came from Scotland. Men entering there have the same conveyance to their respective ships, as if they were impressed. They are shipped and crowded on board of tenders; and after, perhaps, a very long passage to the Nore or the Downs, they are put on board of the guardships, which are often very much crowded, and there they remain until their ships are ready to receive them, when they are carried to them by other tenders. Whether that happens in a long or a short time, will depend on circumstances.

On board of the tenders they lie in bulk, and on board of the guardships many lie on chests and

and the decks, and often without beds. It is not in the nature of things that men labouring under those disadvantages, and coming through such a channel of infection, as tenders and guardships unavoidably must be, while they continue on the present establishment, can escape being either infected themselves, or bringing it in their cloaths and bags to their respective ships.

The Edgar being manned in this manner, the ship fever made its appearance immediately, and soon after increased with violence in spite of the precautions that were taken to prevent it, until the month of December, when it abated, and decreased gradually to the 16th of January, the day of the action with the Spanish fleet, and still more perceptibly for some time after, though we were crowded with the prisoners until the 23d of Feb. During that time, some of the prisoners were seized with the fever, but I could not learn whether their own squadron had been sickly or not. Soon after the ship was haled into the New Mole of Gibraltar, where she lay above three weeks. The people had liberty to go ashore, and, as usual with them, many got drunk as often as they went. About this time all the British seamen, who had been in Spanish jails, were released by cartel, and sent on board of us, of whom some were very ill of the ship fever.—The declining infection was now roused into

new life ; but a little before we left Gibraltar (on the 20th of April) it began to decline, and continued doing so on our passage to England, where we arrived on the 13th of May. Here, from the men's intemperance, after having been five months without fresh provisions or vegetables,—and by having men sent on board of us from the guardship, (the Arrogant) as also from the Princessa and Prince William, on board of which the fever was—the infection became far more virulent than ever ; and continued so until it was providentially checked by repeated smoakings with tobacco in the months of July and August ; for which I readily obtained leave from Capt. Elliott, to whom I wrote the following letter on that occasion.

Edgar at Sea, July 6, 1780.

S I R,

THE infection which has existed on board of His Majesty's ship, under your command, ever since she was manned, having of late become so virulent as to resist the methods that were successfully used formerly to check it,—I beg leave to acquaint you, that it will be highly necessary to have recourse to other means for that purpose ; and to inform you that the most effectual which I have ever experienced in a similar case, are, to smoak the ship frequently with tobacco. The tobacco ought to be well wet with vinegar, and laid on fires placed in tubs, having
water

water and shot under them; and these ought to be so small as barely to light the tobacco, that it may smother away. Seven fires will be requisite for one smoaking, and two pounds of tobacco at least for each fire. All the ports should be barred in, and the hatchways covered with tarpawlings, when the fires are lighted; and the smoak should be thus confined for three hours at least.

I am, Sir,
Your most obedient, humble Servant,
R. ROBERTSON.

Capt. Elliot, Commander of
His Majesty's Ship Edgar.

To which Capt. Elliot returned the following
Answer.

Edgar at Sea, July 6, 1780.

SIR,

I HAVE received your letter of this date, and have given directions to the purser of His Majesty's ship under my command, to supply such quantities of tobacco as you may, from time to time, think it necessary to demand for the purpose of smoaking the said ship, to check the progress of the infection therein, agreeable to your recommendation.

I am, Sir,
Your most humble servant,
J. ELLIOT.

Mr. Robertson, Surgeon, Edgar.

The happy effects of this management were thus reported to Captain Elliot :

Edgar at Sea, August 17, 1780.

SIR,

ON the 6th of July last, when I represented to you that the infection was become so virulent as to render it necessary to have recourse to other means than had formerly been used,—successfully to check it,—the number of fever patients on the sick list was fifteen; and for some days before was increasing by two or more daily. Since that period the ship has been smoaked five times with tobacco, after the manner I proposed; only mixing sulphur with the vinegar, to prevent the tobacco from being embezzled; which purpose it fully answered.

I have the pleasure to acquaint you, that the number of fever patients is now reduced to four; and that for the last twelve days only four fever patients have complained.

Should you approve of it, I am of opinion, were this matter represented to the Lords Commissioners of the Admiralty, it might be productive of future benefit to the service.

I am, Sir,

Your most obedient humble servant,

R. ROBERTSON.

Capt. Elliot, Commander of
His Majesty's Ship Edgar.

Greater

Greater diligence could not be exerted to get the ship healthy, and to keep her so, than was by Capt. Elliot, and the first Lieutenant, whose duty it was to execute the Captain's orders. Every thing which I proposed for that purpose being readily adopted.—It is doing Capt. Elliot no more than justice to declare, that his liberality to the sick exceeds what I have met with in the service.

C H A P. II.

THEORETIC DOCTRINE AND TREATMENT OF F E V E R S.

“**A** Fever, say physicians of great eminence, being an effort of nature to throw off something noxious to the constitution, we are not to impede her operations by either checking or assisting her rashly.” This is the position which they lay down for the general method of treating fevers; but how little they adhere to it in practice, is obvious from reading their works. Through these we find theory urging the most cogent reasons for letting blood, once at least, which is all that they prescribe the first day.—Theory we again see pointing out powerful arguments to promote vomiting, purging, and sweating, in succession, which employ several days

days. Now we observe theory rendering it, to them, absolutely necessary to keep up a moderate perspiration; and the intestinal coat in a lax state: for which purpose, antimonials, camphire, or both, are generally prescribed. But notwithstanding these, and their calling in at last the aid of blisters, cordials, and bark, the strength of the patients having been exhausted early in the fever, many are lost, and the fault too often imputed to the bark. Numberless quotations might be adduced to prove what we have said; and I appeal to the reader, how far the practice of those physicians coincides with their position. If they believe the former, why contradict it by the latter? Can any man, in the highest health, and ever so athletic, endure such a series of debilitating evacuations, without the operations of nature being affected?—Laying the circumstance of diet, which is of great importance in supporting the strength, entirely aside.

The field for theoretic argument is boundless; but it being foreign to our purpose, we leave it to those who have more leisure and inclination to enter it scientifically. Be it our task to adhere to experience, to state clearly what it teaches, and thus assist the unexperienced of the profession to manage the ship fever more successfully than it has been hitherto on board of his Majesty's fleet. To accomplish this, or in other words, to lay a foundation for reducing the management

nagement of the ship fever, as well as the tertian or remittent fever, of hot climates, to a system, has been our study for many years. Having repeatedly avowed, however, that we pretend not to dictate to the learned and experienced practitioners ; instead of their censure, we hope for approbation for the unprofitable task.

C H A P. III.

Symptoms of the FEVER, that occurred on Board of the EDGAR,, which were not observed on Board of the JUNO.

ON the first day some patients complained of the following symptoms :—Heaviness and a slight lethargic disposition ; a degree of hardness and swelling, with pain of the right groin ; an inflammation or soreness of the throat, and an exudation of pus on the tonsils ; accompanied with a fetid smell, a very offensive breath, and an eruption resembling measles.

3. An angry eruption about the mouth ; and the patient, when asked to shew his tongue, took hold of it with one hand to pull it out of his mouth downwards. This was the case of a relapsed patient.

4. Hiccough in some cases, which terminated favourably, and in one which ended fatally with a convulsive catching ; difficult expectoration of a bloody and extremely viscid phlegm.

6. Profuse

6. Profuse hemorrhagia from the nose.
7. The last symptom mentioned the third day, costiveness, with yellowness of the tunicae albugineae oculorum.
8. A perpetual dryness of the mouth, and a yellow suffusion over the body and eyes.
9. The sick swallowed what was expectorated by cough; a rattling in the throat was perceived, which was followed by death on the 13th.
10. The last symptom mentioned on the third day.
13. The patient provoked a tendency to reach by putting the fingers of the left hand into the mouth as far as he could, and pulling his tongue when no person was in sight; afterwards he picked his teeth. He died the same night.
14. The eyes appeared yellower sometimes than they did at others; the cuticula separated and peeled off; paralyfis, and an uncommonly large and healthy-like stool.—This patient died.
16. Rigidity of the limbs.
19. A vomiting of watery stuff only, though other things were in the stomach.
20. An extremely viscid and bloody phlegm was expectorated.

It is remarkable that virulent as this infection was, no petechiæ ever appeared on any of the patients:—Query, Could this be owing to any other cause than the bark having been liberally administered?

C H A P. IV.

Of the Management of the SHIP FEVER.

HOW far the preceding position laid down by many eminent Physicians is just and applicable to Fevers in general, is not our business to enquire, much less to determine; but we have learned by experience, that it is not applicable to the Ship Fever, which apparently is “The effect of poison in the constitution, whence imminent danger or death must follow, unless it be either speedily subdued or expelled;” and therefore, that the most expeditious method to accomplish either is the fittest. The method which we have found best adapted to the purpose, we now proceed to show.

1st. *Of Blood-letting.*—In our observations, we took notice that the climate, and other circumstances under which we then practised, induced us to think it proper to let blood in a number of cases, especially when the patients first complained; but by daily observations, and a careful review of the diary, it appeared, that it never was productive of good—on the contrary, of mischief often: and having never found in a more extensive practice, that one patient has suffered by omitting that evacuation, (for I

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have

have never let blood of a patient ill of the ship fever on board of the Edgar) I can assure the young practitioner, that in a hundred cases it will not be necessary to let blood. I will not aver that a case cannot occur wherein it may be proper; but we have not met with such a one among several hundreds, and I therefore caution young practitioners against Blood-letting.

A friend of mine, who is surgeon of a seventy-four gun ship, in a conversation on this subject, told me, that it was his practice to let blood of his patients, and that it seemed to relieve greatly; especially when they had fixed pains about the thorax. I advised him to omit bleeding some of his patients in future, and treat them with bark; and to observe whether they did not recover sooner than those from whom he took away blood, and treated in other respects, as his other patients. The next time we met, he told me that he had followed my advice, and found that the patients whom he bled became much weaker, and were recovered with greater difficulty than those who were not bled. This is a pointed testimony of an unwilling evidence against a favourite evacuation of his own, and of too many more.

2d. *Of Emeticks.*—We mentioned in the observations, that, if emetics are administered when the first symptoms of contagion are perceived;
or

or during the cold, or shivering fit of the first paroxysm, they frequently become a preventive of the fever, as Dr. Lind has likewise observed: but otherwise, we have rarely found them of further benefit, than as a preparative for the bark;—and however early in the disease the patient took it, I prescribed a sudorific at bedtime. Indeed the emetick frequently procures several stools, and sweats, but these seldom are critical, unless at the times already mentioned.

After what is said, we hope it is unnecessary to enjoin young practitioners to vomit their patients as soon after they complain as possible; and immediately after to give a gentle sudorific, exposing the patient as little as possible, that the perspiration, if they have dependance upon it, may be kept up as long as they judge proper. But should the patient have been ill several days before he complained, it will be, generally speaking, a loss of time to promote sweating, and idle to expect relief either from vomits or sudorifics.

The emetics which I prescribe are either the pulv. rad. ipicacuan. or tart. emet. in the manner I have mentioned in the observations. I would earnestly recommend it to young gentlemen of the profession to administer the tartar emetic in small doses, every half hour, until it operates; lest they otherwise do their patients

much hurt instead of good. Great is the mischief which has been occasioned by giving from three to six grains at once—universal spasms, and extreme debility, which have proved the means of death.

If the emetic is given before noon, the remainder of the day must not be lost. Unless the patient has had a copious stool or two, I order a gentle cathartic to be given two hours after the vomiting is finished: the cathartic which I generally order is the *sal. cathart. amar.* \mathfrak{z} i. with, or without, *cremor. tart.* \mathfrak{z} ij.—To save time, in many bad cases, I have given the *tart. emet.* and *sal. cath. am.* together, in small quantities, repeating them until a stool was procured; and then ordered the bark.

3d.—At bed-time I would advise a sudorific to be administered, and the limbs to be washed with warm water, and a little vinegar. Sudorifics are very numerous; but what I have prescribed on board of the *Edgar*, is either of the two following—*Tart. emet. gr. ss. vel gr. i opij. gr. ss. conf. ros. fiat bolus.*—*Vel sal. C. C. gr. v. opij. gr. ss. con. ros. fiat bolus; hora somni sumendus; superbibend. potione diluente, tepida, ad libitum.*

Should the patient have been ill some days before he complained, and the head ach violent, it will be the more necessary to apply a
blister

blister between the shoulders at this time.—If it was evening before the patient complained, I only thought fit to give the emetic and sudorific, and to bathe the limbs.

4th.—The next, or second day of the patient's complaining, I ordered him the cathartic, unless the emetic had procured some stools; and unless bark was prescribed together with the cathartic, which was often done, I began to give it as soon as the patient had one or two loose stools, and afterwards it was continued from every one, to every four hours, as I saw occasion. The sudorific was, often, again repeated at bed-time, and the blister applied as already mentioned, when the head-ach was violent.

5th.—I have remarked in the observations, that unless blisters are applied very early in the Ship Fever, I could hardly say they ever proved beneficial, except in cases with fixed pains about the thorax, which they often removed without abating the fever. I am so well confirmed in the justness of the remark by longer experience, that I recommend it to young practitioners to apply blisters early in the ship fever, without regarding any theory on the action of cantharides and blistering in the beginning of the fever—if they wish to apply them with good effect. I therefore again repeat it, with Dr. Lind, that when applied early, they often carry off the fever entirely: but I must add, though contrary

trary to that eminent physician's opinion, that I never perceived good effects from them, or the discharge which they procured, in the advanced state of the fever, except in the cases before mentioned.

6th. *Of Bark.*—In some cases, I prescribed it as soon as the patient complained, without waiting for any evacuation whatever;—in others, a few hours after they were vomited only; and often along with the cathartic, according to the exigency of the cases. The more dangerous and alarming they are, the more necessary it is, —experience has convinced me to administer bark early.

However, generally speaking, the sick began to take it a few hours after the cathartic had operated; and in some favourable cases, it was the third day before they took it: but it ought to be known, that if the patient did not complain until the evening, I reckon that as one day. At whatever time I prescribed it, the patients continued it; a drachm, a drachm and a half, or two drachms for a dose, from every hour, to every four hours, as seemed proper—diminishing the number of doses as they recovered, until they were cured. Two ounces of bark was mixed at once with a quart of water; * two, three,

* See our reasons in the *Physical Journal*, p. 144.

three, or four ounces of which were a dose, according to the quantity deemed necessary.

Though this was the simple manner in which I generally administered bark, yet, as in many cases we joined other medicines along with it; and as our chief dependance for the cure is on it, we shall be more particular on this head, and at the same time endeavour to combat the principal objections which theory furnishes against the early use of bark in fevers; those are the supposed *tonic*, *phlogistic*, and *constipating* qualities of this medicine; which, if I mistake not, may be expressed in the word *mechanical*. I wish to know however, of physicians who attribute those qualities to bark, whether by fair and candid experience they have found it to possess them; or whether it be their own opinion, or that of others, grounded on theory only, that it does possess them?—If they answer the latter query, affirmatively, I would further know, what are the qualities of bark in their opinion which cure intermittents, large foul sores, bad-conditioned stumps, gangrene, mortification, and other diseases, and which prevents fever and infection?

Patients labouring under intermittents, as they, comparatively speaking, are in a higher state of health than ship fever patients, who very often are seized with the greatest prostration of strength and spirits—ought they not, according to the doctrine of those gentlemen, to be
more

more improper objects for the *tonic*, *phlogistic*, and *constipating* bark than the latter, after the prime vie are emptied?—In what manner, I say, does it act on the man in perfect health, who takes it as a preventive of contagion, and in the other cases mentioned? Does it exert different qualities in the various diseases for which it is prescribed, as the best remedy yet known? Or, in a word, which, I believe, comprehends the truth, are not the qualities and properties of bark by which it cures so many diseases, entirely unknown to us? This being the result of the argument, let us not be so anxious, or employ our time so idly, as to study to attain knowledge beyond our reach—to comprehend the essential properties of one of the best medicines—if not the very best—with which Providence has blest us; and far less to raise objections against it, because we know not the manner of its acting on the constitution—objections which common sense can overthrow, and daily experience confutes. From my own experience, I have not a doubt but that where one patient has died of the ship fever from bark being prescribed too early and liberally, thousands have died in the world from a contrary practice. The danger which theorists threaten us with from an early and liberal use of bark in this fever, strikes me with the same idea, as if they were to tell me that I would possibly

possibly fall, if I attempted to run out of a house which I knew was on fire, and contained a quantity of gunpowder sufficient to destroy the fabrick and its inhabitants.

That we may view this important subject, however, in another light, we will suppose bark really to possess the qualities of *tonic*, *phlogistic*, and *constipating*; and for this purpose, we will state a case as favourable to their theory as they can wish. "The patient, who has been already gently vomited, purged, and perhaps sweated and blistered, is not relieved of any of the symptoms, which, though not violent, will assuredly become fatal if the fever is not subdued." The question then is, what method is the most eligible to subdue it?—I say, bark is by far the best febrifuge known. But then you reply, it possesses such qualities as to render it very improper for your patient.—I know all its qualities as well as you do, and experience has taught me what it will effect. Let me know what are the symptoms your patient has—Various pains, especially head-ach, thirst and anxiety, the skin is dry and hot, the pulse quicker and fuller than natural, and the tongue parched; and you add, that the symptoms induce you to think, that instead of bark, it would be proper to give him antimonials, camphire, nitre, and subacid and diluting drinks, to promote diaphoresis and moderate the fever. I answer,

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that I know from experience, it is very doubtful whether they effect this or not, and still a greater doubt if they will cure the patient; I know the odds are fifteen to one that they will not so certainly as bark: therefore, whatever else you like to give your patient, I advise you to give bark as the basis of your prescription.—You afterwards tell me, you have tried your patient with bark repeatedly, that his stomach will not retain it, and that he is not relieved:—I would have you then join either opiates, tinct. cort. wine, or sp. C.C. with it; and to leave them off, or to continue either of them as you see proper, even after the stomach retains the bark. You next inform me, that your patient has remissions, but that he has had only one stool, since he began with the bark; or that he has had a diarrhoea ever since.—Add, in the former case, a small quantity of any mild purgative from time to time, with the bark, or throw up a clyster as often as you think proper; and, in the latter, join opiates with it. Again, you inform me, that your patient is greatly relieved, but still has disagreeable exacerbations of heat, the skin dry and hot, and the pulse quick, and you wish to promote a perspiration—I ask you then, cannot you add sal. amon. crud. sal. succin. sal. C. C. tart. emet. or camphor, to the bark, as you please? reminding you at the same time, that profuse perspiration must neither be promoted nor encouraged.

couraged. Last of all you tell me, that your patient is quite feeble, has exacerbations towards evening, and is restless through the night.—You are then to order him wine either with his bark, or otherwise, as you think proper; but to pay attention to his diet, and to give him an anodyne regularly every night till he recovers—which you tell me has happened, the next time we meet; but you cannot help adding, that I have prescribed for the patient in a very different manner to what the greater part of physicians recommend in such cases; and asking, how can you deviate so widely from the general practice?—To this I answer, that I only deviate from the general practice, because it fails fifteen times where bark fails once*. In a pretty large hospital, I have seen one in ten die under the general practice. I know, say you, that you are now alluding to the ship fever; but would you prescribe bark in all other species of fevers?—I answer, I know not how many species of fever you reckon; but I would prescribe it in every case that did not proceed from local inflammation. What! in the small pox and measles?—Certainly, I would tell you, if they unfortunately broke out on board of a ship, or in any place where the ship fever was: I have done it in the measles successfully, and I can see no reason why I ought not to do it in the small

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pox,

* See Table VII. in our observations.

pox, should they happen where the ship fever is; and as early as in any other case of the fever. To prescribe bark in the secondary fever of the small pox is common among physicians. I grant that, you say, and add, unless you allow that the general received qualities of bark before mentioned render it an improper medicine in the beginning of a ship fever, and altogether inferior to the antimonial and camphire treatment—which, indeed, both your practice and experience I see contradict—I drop the argument—And I conclude by telling you, that you had better drop it; for I never will, in deference to any author dead or living, sacrifice the fruits of experience dearly purchased for the benefit of mankind, and often at the risk of my own life, by admitting for truth, what is only founded in erroneous opinion.

Besides the medicines already mentioned, I sometimes thought it necessary to add from ten to fifteen grains of cort. eleuther. pulv. to every dose of the bark; or a decoction of two drachms of rad. serp. Virg. in simple water, to two ounces of the bark. But when, and in what proportion other medicines are to be joined with it, the patient's situation, and the judgment of the practitioner must regulate.

Further: young practitioners must neither rest satisfied, nor conclude that they have done
their

their duty, because they have prescribed medicine. They should be certain that they are properly administered with a due proportion of drink; and be informed where incidental symptoms occur, that if violent, they may endeavour to relieve them immediately. If they are inattentive to their patients, their assistants will probably be more so, and those who attend the sick will assuredly be so. When their patients want diet, they should order the most suitable, that circumstances afford, in small quantities, and often. Of all cordials, from long experience, I prefer and recommend wine: other remedies are not more inferior to bark, than all the class of cordials are to wine. It is often necessary to administer it throughout the fever, and when the sick arrive at a convalescent state, if it is judiciously given as part of their diet, it will be found the best of all corroborants and antiscorbutics.

Notwithstanding the superior virtues of bark in curing the ship fever, we must forwarn young practitioners against forming an expectation that it will either prove infallible, or will cure their patients in as short time as it does the tertian of hot climates, more especially should the patients have been ill several days before they complain. If they imagine a few doses will cure them, they will probably add to the number who unjustly report 'that the bark failed them.'—I cannot
even

even take it upon me to say what number of days it may be necessary to give it:—that will ever depend on the degree of virulence of infection, the climate and season, the age and constitution of the patient, and other circumstances;—they must therefore continue to administer it until their patients are cured; paying more regard to the effects, than to the number of doses they give.

In a word, though the description of the fever which we have laid down, is a faithful copy of nature, we must confess that it is not in the power of man to lay down one that would be found applicable to every case that may occur. The same is to be understood respecting the administration of bark: for though that medicine will most probably cure all of them, the manner of prescribing it must be varied according to circumstances. Such variety there is in human nature, and under so great a diversity of circumstances does it exist.

I might insert hundreds of cases of the ship fever, and the method in which they were managed; yet the young practitioner might never meet with one in his own practice exactly similar to one of them, or that would require the same proportion of medicines. Like the patients themselves, though all of the same species, how seldom do we see any two alike in features, or eat and drink the same quantity. Practitioners
must

must therefore be mindful that we have only, after the manner of some painters, laid the outlines of the piece or figure, before them, the finishing must be left to their own judgement and skill; and with these, to do it with tolerable satisfaction to themselves, if I mistake not, they must unite their utmost attention.

C H A P. V.

CASES *which terminated fatally.*

C A S E I.

TH O. Wakeland, a marine, aged about 25, of a thin habit, and inclined to drink, complained on the evening of the 25th of April, 1780, of having been seized with giddiness, and alternate chills and heats; lassitude and debility. Emet. statim, ac sudorific. h. f. dedi, and allowed him sage tea with nitre, to drink throughout the night.

2. He had no remission this morning, and was costive. I ordered the common purging draught for him, and the bark twice in the afternoon.

3. He

3. He had a slight remission after perspiring in the night. Cort. ʒi. secunda quaque hora præscripsi, ac potionem ad libitum.

4. He complained of dyspnœa, pain at the præcordia, and cough at times, after having a very bad night from raving; the pulse was quick and small, and the skin moderately cool.— Ut heri præscripsi. PM. he had a slight belly-ach.

5. He raved again in the night; the tongue was brownish, very foul, and rather shrivelled, the skin was cool, and the pulse smaller and quicker than natural; the countenance was much diseased, but he thought himself better.— Corticem ut ʒtio cepit, et vini pauxillum in portione.

6. The cough and pain about the præcordia were more urgent, and the debility was greater this morning. Ut heri præscripsi, et præcordis tinct. cantharid. applicand. PM. sal. suc. gr.v. atq; corticem ut heri adhibui.

7. A remission after a moderate perspiration. Medicinas suas ut heri cepit. PM. exacerbation. Sexta hora sal. succin. gr.ix. atq; corticem deglutit; epithem. utitur, et clyfma injeci.

8. He had a remission, but he put out his tongue with much difficulty, as was the case with him for some days past, though it was now much cleaner. He had two copious stools with the clyster last night; the pulse and skin were in the same

same state as on the 4th day. *Præscripsi corticem, teriia quaque hora, et vinum ut 5to die.*

9. He was disturbed in his sleep with wandering; in the morning he thought himself better, but could not put his tongue out until his mouth was moistened, it was so dry and rough; the pulse was much firmer, and the skin was now hot and dry. *Ut heri præscripsi, et sal. ammon. crud. gr. v. atq; cort. PM. a most violent exacerbation was brought on from wine being given him by his messmates. He now laid hold of his tongue, and pulled it out of the mouth, when he was asked to shew it; the dyspnœa was extreme, during which the thorax seemed to be pulled upwards and downwards with vehemence, as well as the trachæa arteria, which at the same time was much projected at every respiration; the countenance was dejected, the skin very hot, and quite dry; the pulse rapid, the face covered with sweat, and he was speechless at times. Veficat. præcordiis, ubi epithem cantharid. utitur, fuit admotum, et tart. emet. grß. ut visum, atq; tinct. thebaic. gut. xx. 10ma hora dedi.*

10. I perceived a degree of rattling in the throat last night; he had two loose stools from the tartar emetic; at eight this morning he had a remission, and complained of the blister. *PM. he rambled constantly. Cort. ut heri, atq; vinum ut visum dedi.*

11. The pulse was firmer and more regular, in other respects he continued as yesterday. — *Ut heri adhuc præscripsi.* PM. a severe exacerbation returned, respiration was extremely laborious; the abdomen more agitated than the thorax, and there was the same appearance about the larynx as on the 9th, the rattling more perceptible, and the lower extremities cold. *Tinct. theb. gut. xx. decima hora pm.*

12. He seemed to breathe with more ease, though with a disagreeable noise; the countenance had the hippocratic appearance. *Medic. ut heri cepit.* PM. uneasiness about the abdomen, and the lower extremities continued cold; the clyster procured him one copious stool. *Enem. emollien. injeci; et tart. emet. grß. dedi.*

13. This morning the patient provoked vomiting by putting his fingers down his throat and pulling out his tongue, when no person was in sight, and he afterwards picked his teeth:—I suspected he had worms. 4 pm. the upper extremities became cold, and at 11 he died.

In this case, no man can with justice say that the bark failed; for until the afternoon of the 9th, when wine was imprudently given him, there was every appearance that he should do well, at least there was no bad appearance about him. I therefore scrupled not to assert at the time, that he was as much killed by the wine,
as

as if he had been shot; and I am firmly of that opinion. Another patient got wine from his messmates at the same time, and narrowly escaped with his life.

CASE II. Isaac Kidd, a seaman, aged about 58, of a bad constitution, complained on the 17th of May, of the general symptoms of fever, (as I was told, for I did not see him) and took an emetic, and the purging draught.

2. He was greatly dejected when I saw him, and complained of debility and lassitude. Cort. ʒi. quater in die, et anodyn. h. f. præscripsi.

3. He complained as before; cort. tertia quaque hora dedi.

4. I was told there was no alteration about him. Cort. ut heri fuit præscripta. PM. he became worse, as I was informed.

5. He was thought to be much the same. Medicin. ut heri cepit. He walked about in the afternoon, and about midnight (as I was informed afterwards) he became speechless and very restless. Nothing more was done for him.

6. He died at three in the morning.

Bad weather prevented me from seeing this man more than twice; and that was on the mornings of the 2d and 3d days only. I therefore cannot draw any inference from this case.

CASE III. Edward Norman, a seaman, was seized in the afternoon of the 27th of May, with the usual symptoms of the ship fever. I ordered the emetic and purging draught together, and the sudorific at bed-time.

2. There was a remission of the symptoms. Cort. quater in die præscripti.

3. An exacerbation, I was told, came on last evening, and went off in the night. Cortex fuit ter in die præscripta. PM. an exacerbation returned with rambling.

4. He passed the night ill from inquietude, rambling, head-ach, pain about the thorax and difficult respiration. AM. a remission; at 6 pm. the remission continued.—His nose bled a few drops. Cort. secunda quaq; hora dedi. 8 am. vesicat. inter scap. admov.—I went ashore.

5. I was informed that about eight last night the exacerbation returned with great dyspnœa, and rambling, and that he died about five in the morning.

I only saw this man on the 4th day of his illness; besides, the ship was at Spithead, and bun. boat women brought liquor and strong beer on board, which their messmates, especially when drunk, always give to the sick,—and as the two last cases almost certainly fell under this predicament, I am not of opinion that the bark had fair play in any of them.

CASE

CASE IV. James Gray, of a very easy temper, of a lax fibre, and subject to hæmorrhage from the nose, complained on the 29th of May, of the usual symptoms of fever, as I was told. Emet. et sudorif. cepit.

2. A perfect remission; the vomit purged him. Corticem bis in die præscripsi.

3. He continued to recover. Cort. ter hodie fuit præscripta.

4. He recovered his strength slowly. Cort. quater dedi.

5. He relapsed. Corticem secunda quaque hora, et vesicat. inter scapulas præscripsi.

6. He complained much of inquietude, heat, and thirst. Cort. ut heri cepit. PM. a violent hæmorrhage from the left nostril reduced him to extreme weakness; calling upon him accidentally, I found, as I judged, a pound weight of blood in the bucket. Cort. ʒi. alum. com. gr. x. aq. simp. ʒij. fiat haust. singulis horis repetend.—et vin. cochlear. i. ut visum. sumat. The second dose of the medicine entirely stopped the hæmorrhage; dein. alum. fuit omissum.

7. Debility and faintness with cough at times. Ut beri, sine alumine, præscripsi. PM. a little hæmorrhage. Alumen ut heri cepit; ac vini cochleare ut visum.

8. Great

8. Great thirst, with a dry brown tongue, distressed him; a bloody serum oozed from the nostril. Corticem et vinum ut heri dedi.

9. Extreme debility, catchings, or convulsive twitches, an unnatural respiration, urgent cough, and swallowing what he expectorates; and fordes about the mouth. Medicin. ut heri, sal. succin. et ammoniac. gr. iv. secunda quaque hora cepit.

10. About midnight a violent exacerbation came on with dyspnæa and oppression about the præcordia. Medicin. ut heri, et vesicat. scrobic. cordis admovi. PM. raving, inquietude and the cough were distressing; when he was asked to put out his tongue, he pulled it out of the mouth, and downwards; he was also costive. Enema injeci.

11. He had a stool from the clyster, and the tongue was clean, though the teeth were covered with fordes; he raved at times through the night, and was desirous to get out of bed, but complained only of weakness; there was a convulsive motion of the lower lip, and the voice was altered. Ut heri; et pm. rad. serp. Virg. decoct. dedi, atque cortic. omisso vino.

12. He was worse; the pulse was quick and weaker, and his eyes were generally shut. Medicinas adhuc cepit. PM. sal. succin. gr. x.
quarta

quarta quaq; hora; aliter ut nona præscripti, et enema fuit repetitum.

13. Tremors increased, and he became speechless at times, and coughed rather less. Cort. ʒi. sal. ammon. cr. gr. viii. secunda quaque hora, atq; vin. pauxillum ut visum præscripti; vesic. femoribus internis admovi.

14. His appearance and symptoms varied.—AM. the countenance was more lively, but the tremors, or rather universal paralysis, with raving and inquietude continued. Ut heri, atque rad. serp. virg. decoct. PM. the paralysis abated: a subsultus tendinum was observed through the day; and he voided an uncommonly large and healthy-like stool.

15. He had an exacerbation of heat, and inquietude the first part of the night, accompanied with a quick, full pulse, and towards morning a remission. At noon the paralysis returned with a very diseased countenance, and he sweated about an hour. PM. the paralysis remitted: 6 AM. tart. emet. gr. . atq; decima hora am. iterum, medicinas ut heri cepit.

16. He passed the night ill from inquietude, paralysis, and other symptoms of death. Ut heri decima hora præscripti. PM. rigidity and continual motion of the limbs, with sweat, chiefly on the forehead.

17. About

17. About eleven last night a profuse sweat broke out, which lasted only a short time; but he continued in a state of perspiration for several hours. AM. the countenance was tending to the hippocratic, and there was a constant motion of the mouth as if he had been tasting something; the paralysis was elsewhere scarcely perceptible; the skin was moderately cool and soft, and the pulse was firmer and more regular than for many days past.—PM. he was extremely weak, and the tongue very sore, tho' he continued better. *Medicinas quarta quaque hora, et vin. paucissimum ut visum cepit.*

18. About 8 last night frequent catchings, startings, and subfultus tendinum came on; the face was covered with profuse sweat, the pulse was very weak and irregular, and twice he shewed a disposition to get out of bed, by putting his legs and arms out; at other times he lay on his back, with his eyes generally shut. His skin was moist and soft. AM. the countenance looked better, though the eyes were shut. PM. he was distressed with a teasing cough, and he was costive. *Medicinas quas 15to die 10ma hora am. præscripsi, nunc quarta quaque hora cepit, et diæta maxime idonea. PM. enema emolliens fuit injectum.*

19. Between twelve and four in the night he lay quiet; before and afterwards, he was, from inquietude, with difficulty kept in bed and at
8 am.

8 am. he died. Query—Did not this man's death proceed from the hæmorrhage on the 6th? I have not a doubt of it.

CASE V. George Hogg, the ship's barber, much addicted to tipling, after drooping a month, principally with cough and various pains, complained on the evening of the 7th of June, of the general symptoms of fever, and a cough. Emetic. et sudorific. dedi.

2. He perceived no alteration; the symptoms were not violent.—Sal. cath. amar. \mathfrak{z} i. sumat. et pm. corticem Peruv.

3. He complained of thirst and universal foreness.—Cort. quater in die sumat.

4. Debility, cough, and pain about the thorax, attended with anxiety, harraffed him; the skin and pulse hitherto were very little hotter or quicker than natural. Cort. quater atque tart. emet. $\text{gr}\frac{1}{4}$. cepit.

5. He had a remission. Ut 3tia præscripsi.

6. He continued better after a tolerable night's rest. Corticem ut heri dedi.

7. He was disturbed in the night with frightful dreams; the countenance always seemed a little flushed; the pulse was quick, and the skin

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hotter

hotter than natural, and the tongue had a boiled-like appearance. Cort. secunda quaq; hora præscripsi.

8. He had an exacerbation, after passing the night ill from inquietude, but his chief complaint was of perpetual dryness of his mouth.— Ut heri medicinam adhibui.

9. He complained only as he did yesterday, and of thirst. Cort. atque rad. serp. Virg. decoctum ut heri deglutivit.

10. He rested ill from inquietude and wandering dreams; the cheeks rather more flushed; he seemed very anxious, but complained of debility only. Ut heri præscripsi.

11. He had a tolerable night; there was no alteration, however, and he did not take his medicine:—he was costive. Sal. cath. am. ʒß. atque cort. ut heri sumpsit.

12. He was restless about the middle of the night, and at other times dosed insensibly; debility was his only complaint; he had no appetite since he was taken ill. Ut heri, sine sal. cath.

13. A remission succeeded a profuse sweat, in the morning; there was an exacerbation pm. Corticem adhuc cepit, et vini paux. ut visum.

24. He perspired twice in the night, and started once out of his sleep in a fright, but
there

there was a remission in the morning.—*Ut heri præscripsi.*

15. He had a tolerable good night, was generally in a moderate state of perspiration, and was sensibly stronger. *Corticem quarta quaque hora atq; sal. ammon. cr. gr. v. dedi:—aliter ut heri præscripsi.*

16. An exacerbation with flushed countenance, the pomegranate appearance of the tongue, and despondency came on;—but I was informed that he had all along said that he would not recover. He had no stool yesterday.—*Ut nono, atque vinum ut visum præscripsi. Enema com. fuit inject. et vesicat. inter scapulas admotum.* PM. the blister pained him, and he had a slight remission, but in the evening an exacerbation returned.

17. He slept, and perspired moderately in the night, which brought on a remission.—*Ut heri, unaquaque hora medicinas dedi, atque vinum.* PM. he complained of a pain about the left ilium, which was accompanied with a most profuse diarrhœa, that harraffed and weakened him exceedingly. I perceived tremors on him at times. *Anodyn. ut visum dedi.*

18. There was no heat or quickness of the pulse; on the contrary, the skin was moist, and the tremors less perceptible after a good night.—He wandered a little at times, and was

so weak that he could not put his tongue out.—
 Medic. ut heri, hodie; atq; vinum et opium ut
 visum, præscripsi. PM. there was an exacerba-
 tion of the tremors. I observed a hiccough at
 times; he again complained of the pain of the
 ilium, and the tongue was enlarged.

19. He rested tolerably, and the diarrhœa,
 which had the bark appearance, was abated;
 but the tremors and hiccough were distressing, as
 was a subsultus tendinum. I omitted his medi-
 cines, and allowed him milk, and wine frequently.
 He reached at times with the cough, (for it con-
 tinued all along, more or less) and threw up a
 clear watery stuff. I also injected the following
 clyster:—an ounce of portable soup dissolved in
 ten ounces of boiling water, to which half an
 ounce of bark and one grain of opium were ad-
 ded, at ten in the morning and six in the after-
 noon. PM. the pulse was tremulous at times,
 but he thought himself better.

20. The hiccough frequently harrassed him
 greatly; subinde ol. cinnam. gut. i. cum sacch.
 alb. frustulo cepit; and he spit up some-
 times a bloody and extremely viscid phlegm
 through the night, and had a stool; he be-
 came stronger, the pulse was firmer, and he put
 his tongue out. Ut heri præscripsi.—PM. the
 hiccough, subsultus, cough, and reaching at
 times

times became fatiguing, the strength failed, and the pulse fluttered.

21. The complaints continued through the night; he never brought the milk up when he reached. *Ut heri præscripsi; sed primo enema emolliens (aq. simp. ℥x. sacchar. iv. axung. ℥ij. fiat enema) injiciendum.* In the forenoon his face was covered with a greasy shining moisture and the countenance became hippocratic. Universal paralysis, and at two pm. he died.

CASE VI. John Blair was seized the 27th of June in the evening; he complained of the general symptoms of fever, of which he was so much relieved by a vomit and sudorific, that he thought himself well, and did his duty.

On the evening of the 2d of July, however, he returned, having the head-ach, great pain about the præcordia, extreme depression, a very diseased countenance, and total prostration of strength; he informed me that he had been seized the preceding evening with shivering, severe head-ach, and the usual symptoms of fever. *Statim ut 27mo ult. deinde corticem secunda quaque hora per noctem præscripsi.*

2. I found hardly any alteration.—*Corticem adhuc cepit, atque opium ut visum.* PM. he had a very slight remission.

3. He was distressed with diarrhoea, griping, extreme giddiness, and debility and the countenance seemed

seemed bloated; the pulse was very moderate, and the skin cool. At 4 pm. an exacerbation came on:—*corticem et opium ut heri, atq; vin. ut visum præscripsi.*

4. A remission of all the complaints excepting the giddiness and prostration of strength and spirits; he coughed at times, which brought on pain about the præcordia, and the tongue was brown and rough. PM. an exacerbation with a convulsive catching, hiccough, and a dejected countenance. *Medicinas, sine opio, ut heri, atque vinum libere dedi; et vesicat. præcordiis ad-movi.*

5. Scarce any alteration, only the pulse was very weak and low. PM. the pulse altered variously in the course of the day; inordinate craving for water to drink, and to go ashore, though he seldom spoke; the skin was hot at one time, and the tunica albuginea was yellowish. *Ut heri; ac tinct. cort. Huxham. ʒß. præscripsi; but it did not agree with him:—*10 pm. *sal. succin. gr. ix. cepit.*

6. He was comatose, and seldom spoke, and tho' more and more exhausted, thought himself better; and the pulse seemed firmer and more regular. PM. involuntary discharges of urine and fæces: the discharge from the blister was of a dark coloured sanies, and the blistered part had

had the same appearance; he pulled at the bed-cloaths, holding them to look at, and throwing his legs out of bed. Medic. ut heri, et sal. succin. gr. xii. decima hora pm. cepit.

7. He died at eight in the morning.

His messmate informed me that he was never well from the first attack on the 27th of June, and on the 2d of July he complained again. A severe head-ach was his chief disease at that time. I understood further, that he had several old venereal symptoms.

This case was evidently desperate from the beginning.

C H A P. VI.

CASES to illustrate the Management of the F E V E R.

AS the following cases are intended to illustrate the different heads under which we have reduced the management of the Ship Fever, it is not to be expected that the order, as to time when they occurred, will be regarded.

1. Vomiting.

1. *Vomiting*.—We have already repeatedly observed, that if vomits be administered when the first symptoms of contagion are perceived, or during the cold, or the shivering fit of the first paroxysm, they frequently become preventives of the fever.

CASE VII. Robert Dean, aged about 20 years, came lately from the Conquestadore guard-ship at the Nore, and complained on the 10th of September, 1779, of shivering, sickness at stomach, head ach, and universal pains, especially of the loins. A vomit was immediately prescribed, which operated well, and gave him a copious stool or two. The symptoms were carried off, he slept well, and next day he only felt himself a little weaker than usual. I gave him two doses of the bark, with fifteen drops of elixir of vitriol, and on the day following he returned to his duty, quite well.

CASE VIII. Mr. Knight, about 32 years of age, a temperate man, complained on the 19th of September, 1779, of head-ach, sickness at stomach, and thirst; the pulse was rather quicker, and the skin hotter than natural; he had not perceived any chillness or shivering to precede these symptoms. I gave him an emetic, and next day he was perfectly well.

CASE

CASE IX. Christopher Forster, aged about 19, complained on the 2d of October, 1779, of alternate chills and heats, head-ach, universal pains and thirst. A vomit was immediately prescribed; the third he found a little weakness, took the bark twice, and returned the 4th to his duty.

CASE X. John Osborne, an East-India molattoe, aged about 18, was seized the 16th of Oct. 1779. with all the general symptoms of the ship fever, I prescribed the vomit immediately; the next day he was so well, that I ordered a light diet only for him; and on the 18th he returned to duty.

Besides these I could insert many other cases to prove the great importance of giving vomits on the first attack of the fever.

2. *Sudorifics*.—When the vomit did not entirely carry off the symptoms, the patients have been frequently cured by a sudorific given afterwards.

CASE XII. Joseph Clun, aged about 28, was seized on the 18th of October, 1776, with the general symptoms of the fever; and not being entirely freed from his complaints by vomit, which he took immediately, I ordered

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him

him a sudorific :—that day he complained of a slight debility only. He took fifteen grains of cort. eleuther. twice, and returned to his duty on the 20th.

CASE XII. James Thacker, aged about 23, was seized the 23d of November, with the general symptoms of fever; and for the same reason as in the preceding case, a sudorific was prescribed at bed-time. On the 24th, being free of the symptoms, but weak, I gave him a few doses of bark, and next day he returned to his duty.

3. *Cathartics* — Although it does not occur to me that I ever saw a patient cured of the fever by cathartics alone, or that I ever saw them given before vomits, yet I have often found it necessary to prescribe them after both the vomit and sudorifics to perfect the cure. We shall only insert two or three cases.

CASE XIII. Mr. Mitchel, aged about 22, a strong, healthy young man, having on the 5th of October, 1779, been on duty on board the Dunkirk guardship, where the ship fever was very virulent, the day following he complained of a fever; the pulse was quick, and the skin hot and dry; his head-ached, and he was much harassed with a griping and purging. I ordered him

him a vomit and diluting drinks. On the 7th he was greatly relieved, after the vomit, which operated likewise by stool and perspiration, but the dysenteric symptoms were not gone; he therefore took a cathartic, and returned on the 8th to his duty.

CASE XIV. Richard Sullivan, about 25 years of age, complained the 4th of November, 1779, of shivering, head-ach, and purging. An emetic was administered; and next day as the purging was not quite gone off, he took a gentle cathartic, and returned to duty on the 6th.

CASE XV. John Cummings, aged about 24, was seized on the 9th of November, 1779, with alternate chills and heats, head-ach, and universal pains. I immediately gave him a vomit, and a sudorific at bed-time. The 10th, the head-ach and universal pain, though alleviated, were yet troublesome; I prescribed a cathartic, and next day he found himself perfectly well.

4. *Of Blisters.*—We might insert many cases to show the great benefit derived from an early application of them; but as repetitions are tiresome, we shall only mention four.

CASE XVI. Michael Irving complained on the evening of the 5th of February, 1780, of the general symptoms of the fever, for which he took a vomit, and a sudorific at bed-time. There was a remission next morning, but in the afternoon an exacerbation, especially of the head-ach:—*Matutino cath, mite cepit, et pm. vesic. cat. inter scapulas admovi.*

On the 7th he was perfectly free of complaints, except from the pain of the blister, and he returned to duty as soon as his back was well.

CASE XVII. John Putnam, aged about 37, was seized with the general symptoms of the fever on the evening of the 23d of May. A vomit and sudorific were prescribed, and next day the cathartic, and at night the sudorific was repeated. On the morning of the 25th there was no remission; the head-ach, giddiness, sickness at stomach, and wandering pains, distressed him greatly. I ordered him the bark every three hours, and a blister to be applied between his shoulders. He passed the night ill from wandering and inquietude; but there was a remission of all the symptoms in the morning, and no return of them afterwards. The bark was continued, though seldomer, until he returned to his duty.

CASE

CASE XVIII. James Farrel, a marine, aged about 26, complained on the 20th of June, 1780, of the usual symptoms of fever, for which he took the tart. emet. and salts together, and the sudorific in the evening. The 21st the head-ach and prostration of strength and spirits continued. I applied a blister between the shoulders, and ordered him the bark. On the 22d he was free of every complaint but debility, and had no return of the symptoms.

The bark was prescribed until his back was healed.

CASE XIX. John Howe, about 25 years of age, was seized on the 27th, but did not complain until the morning of the 28th of June, 1780, of the usual symptoms of fever, and immediately took the emetic and cathartic together; and pm. I ordered him the bark. On the 29th there was no remission, though he had been vomited, purged and sweated by his medicines, and the countenance was much diseased; the bark was continued four times in the day, and a blister applied between his shoulders. On the 30th he complained of the blister only, and never had any return of the fever, but he took the bark twice or thrice until his back healed.

5. *Of Bark.*—As upon this we not only place our chief dependence for the cure, but are to prove by the clearest negative evidence, how fatal

fatal the precept—not to administer bark early in fevers—has been to mankind, we must necessarily be more particular on this, than we have been on any of the former heads. We shall, therefore, first show how innocent and effectual it is, when given in the beginning of the ship fever, without either an emetic or cathartic having been prescribed before or with it. We shall, secondly, insert a few cases, out of hundreds, which we have successfully managed by administering bark early and liberally. Thirdly, we shall state the cases which ended fatally:—And lastly, we shall conclude with a few inferences.

First we are to show how innocent and effectual the bark is when given in the beginning of the ship fever, without either an emetic or a cathartic having been taken before or with it.

CASE XX. Mr. R. aged about 38, of a healthy, tho' delicate constitution, temperate in his living, and well accustomed to different climates, without being affected by them, arrived at Gibraltar on the 19th of Jan. 1780, in perfect health; but no sooner did the wind veer round to the Eastward, than he was seized with the symptoms of fever; and those were always increased when it blew a *Levanter*.* As long as this gentle-

* When the wind blows strong from the Eastward.

gentleman staid there, he was regularly affected by those winds, and constantly relieved by a liberal use of the bark, without giving any medicine previous to it: sometimes about a sixth or a fourth of a grain of emetic tartar were joined with it. He varied his diet and living as little as possible.

On the 10th of April, the wind then NW. and Westerly, blowing strong at noon, (having for a considerable time before been much exposed to infection among the prisoners in the hospital where his duty led him) he felt the pains coming on about eight in the evening, which he had hitherto been subject to, only during the approach and continuance of the easterly winds; and expecting the change of weather, he continued on his duty, and took a little tincture of bark twice.

On the 11th, the pains were more severe and wandering; at one moment he had the sensation of being extremely fatigued, and the next he was so easy that he forgot them; sometimes there was an unusual heat in the skin; but the pulse was very little affected. He took the tincture of bark as he had done yesterday; went with languor about his duty, and imprudently walked and stood a good deal in the sun; and afterwards went off in a boat during the strength of the breeze. He could eat little dinner from
the

the fatigue, and passed the night indifferently, the pains being increased.

12. Finding himself worse, the pulse rather weaker than natural, and irregular, together with a slight nausea, he took tinct. cort. $\mathfrak{z}\beta$. tart. emet. gr $\frac{1}{4}$. thrice in the afternoon. However, perceiving a chilness come on at ten in the evening, he began with the bark in substance. Pulv. cort. Peruv. $\mathfrak{z}\text{iv}$. tinct. cort. $\mathfrak{z}\text{ij}$. aq. vel portione thæ $\mathfrak{z}\text{ij}$. statim cepit. At 11 he was not colder, and repeated his medicine. He was so distressed with fever, severity of pains, and headache, that he lay down in bed at noon; soon after, he repeated his draught with sal. succin. gr. viij. and drank freely of warm tamarind beverage. The heat was vehement, the pulse was rapid, and the pain darted violently from one place to another during the hot fit which was succeeded by a profuse sweat, and that gradually brought on a remission about four pm. Notwithstanding the severity of the paroxysm, neither his reason nor spirits were the least affected, but he was astonished to feel himself so extremely weak, and the head so greatly diseased, though not pained when he got out of bed at four. He repeated his bark thrice, and took x. grains more of sal. succin. when he went to-bed at eight o'clock, having first a copious stool.

13. The remission was more distinct, though the head seemed greatly disturbed, after he had enjoyed

enjoyed a tranquil and very pleasing night, and though extremely weak, he went about his duty on board, taking his bark every two hours.

14. He had a good night, continued his bark, and with the first dose took an ounce of salts, and two drams of crem. tart.—He persisted in taking his bark, and never had any return of the fever while he lay at Gibraltar, but did not recover his strength until he left it on the 20th; and ever since he has enjoyed a good state of health. At bed-time on the 12th, and on the evening of the 13th, he took ten grains of sal. succin. without perceiving any effect from it.

CASE XXI. Mr. Blake, aged about 22 years of age, of a stout make, and robust constitution, was seized on the 13th of June, about noon, with a severe paroxysm of fever, which terminated in a remission about six pm. by sweat. It was then he complained; the head-ach, universal pains, especially lumbago and debility, chiefly distressed him. I ordered him cort. Peruv. p. ʒij. immediately, and to be repeated before he went to bed.

On the 14th in the morning he was much relieved, and in the course of the day took an ounce of the bark.—The day following he returned to his duty, and never had a relapse.

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Secondly,

Secondly, we are to insert a few cases, out of hundreds, which we have successfully managed by administering bark early in the fever, and liberally.

CASE XXII. George Alexander, aged about thirty-six, somewhat slothful, was seized on the 25th of October, 1779, with a great prostration of strength and spirits—or faintness, as he expressed it. On the 26th, about 11 in the morning, he was brought to me, immediately after he had recovered out of a syncope, into which he had fallen some time before. His complaints were extreme weakness and lassitude, and confusion of the head; while the countenance was greatly diseased, the pulse languid, and skin cold; a vomit was ordered, and two drams of bark to be taken an hour after the vomiting, and to be repeated thrice in the afternoon. In the evening there was an exacerbation of heat and thirst.

27. The fever was very moderate in the morning, and he complained, but little, of his head, and universal soreness, after having had a good night. I ordered his bark to be continued.

28. He felt himself easy, though weak, and had very little fever or thirst on him. An ounce of bark was again prescribed, and half an allowance* of wine. He afterwards continued to
take

* 'Tis about seven ounces by measure.

take his wine, and half an ounce of bark daily, until he returned to his duty on the 1st of Nov.

CASE XXIII. Wm Hogarth, aged about 18, of a lax fibre, on the 14th of Jan. 1780, was seized with head-ach at one am. which abated again, and about 10 am. he fell into a syncope. As soon as he was recovered out of it, by the use of sp. C.C. he took a vomit.

15. He passed an indifferent night, complained of great pain across the os frontis; the tongue was beginning to grow black, and the lips to be covered with fordes; the pulse was very quick, and the skin and muscles were exceeding hot, and preternaturally soft and relaxed. In the morning I ordered the usual cathartic, as he had no stool by the vomit. At 11 I was informed he had again fallen into a syncope. The bark was prescribed every two hours.

16. He complained of debility and a little giddiness, and was ordered to take his bark every three hours. PM. he was at his quarters during the action with the Spanish fleet, and had no return of the fever, nor took any more medicine.

CASE XXIV. Lieut. Saunders, aged about 31, of a hale constitution, was seized, on the 26th of October, 1779, with heaviness, lassitude, stretching of the extremities, chilliness, and a
pain

pain, with a little swelling and hardness of the right groin. I proposed a vomit, which he declined taking; and at three pm. a severe shivering came on with head-ach, universal pains, especially lumbago. He now took a vomit; a hot fit, with an exacerbation of the symptoms, succeeded; and at night he took five grains of sal. C.C. and half a grain of opium, in the form of a bolus.

27. He was somewhat relieved by the vomit, but more by a free perspiration through the night; the groin was much better; however, the head-ach continued, and he was costive. In the morning he took the common purge of salts and cream of tartar, and in the afternoon two drams of the bark, twice, with a spoonful of wine, in water.

28. He found himself recovering, after a good night; and the bark was repeated, four times, as he had taken it yesterday. He had no relapse, and took his bark twice a-day for a few days, tho' he returned to his duty on the 30th.

CASE XXV. Wm Coates, about 22 years of age, of a thin habit, after drooping some days, complained, on the 5th of November, 1779, am. of a sore throat; he spoke through his nose, and seemed to have much difficulty in swallowing; the uvula and tonsils were much tumified, and the pulse was much quicker and weaker than natural,

natural. The vomit was prescribed, and in two hours after its operation, the cathartic. PM. a blister was applied between his shoulders, and a sudorific given him at bed-time, after using the pediluvium.

6. He was much relieved, but costive; the cathartic was repeated in small doses, until it operated. PM. he continued easier, having perspired all day. I ordered the bark to be given him twice in the night.

7. The pulse was firmer, but he complained of more pain in the left side of the throat, and the tongue was foul. Cort. $\mathfrak{z}\text{ij}$. quinquies in die dedi.

8. He passed the night ill from the pain and an urgent cough; the pain now extended from the thyroid gland down to the sternum, and the pulse was quick and small. PM. he complained of alternate chills and heats.—Corticem ut heri præscripsi.

9. The pain remitted. PM. he had very irregular or uncertain sweats and remissions thro' the day.—Corticem adhuc cepit, et gargarismo sæpe utitur.

10. Exacerbation of the pain of the left side, and cough. Cort. $\mathfrak{z}\text{ij}$. quater sumat.

11. Remission, after having passed a good night. Sal. cath. amar. $\mathfrak{z}\beta$. capiat:—aliter ut heri.

12. He

He continued better, but the cough was teasing at times. Cort. ʒi. ter capiat. The cough did not leave him until the 20th, and during that time he took the bark twice a-day, and an emollient linctus was prescribed.

CASE XXVI. Wm Crane complained on the 8th of Nov. 1779, of having been seized the day before with alternate chills and heats, and a sore throat; the tonsils and uvula were now much inflamed, and covered with an exudation of pus; the tongue was foul, and the pulse was quick. Emetic. et cathartic. simul statim dedi; et deinde cort. ʒi. secunda quaque hora cepit, et gargarismo utitur.

9. He perspired in the night, but the throat continued painful, and the pulse was small and quick; the tongue looked as if it had been scalded. Cort. ʒij. quinquies in die, et gargarismum præscripsi.

10. There was a remission of all the symptoms. Ut heri medic. quater cepit.

11. He continued better. Cort. ʒi. quater, et sal. cath. amar. ʒß. matutino adhibui.

12. 13. He took his medicines, and returned to duty on the 14th.

CASE XXVII. Barney Clare, on the 5th of Nov. 1779, was seized with, and complained of the general symptoms of fever. I ordered the
 emetic.

emetic. P.M. a violent exacerbation came on with very acute pain in the lower part of the left side of the thorax; the pulse was quick, hard, and full, and the skin very dry and hot. The vomit gave him several stools, and he took a sudorific at going to-bed.

6. No remission in the morning, though he sweated profusely throughout the night; the tongue becoming black. Sal. cath. amar. $\mathfrak{z}\text{ss}$. cort. $\mathfrak{z}\text{i}$. mane dedi; posteaque cort. $\mathfrak{z}\text{ij}$. tertia quaque hora præscripsi.

7. Remission of the pain, but he complained of head-ach, sore throat, and hoarseness, which were exasperated by a cough. An angry eruption broke out about the mouth; however the pulse was firmer, and his skin and tongue were moist.—Cort. $\mathfrak{z}\text{ij}$. quinquies dedi.

8. His complaints gradually remitted, and he passed a good night. Ut heri præscripsi. P.M. an exacerbation came on, with acute pain of the side and cough.

9. About ten last night there was a remission, and he passed a good night: the eruption drying about the mouth. Cort. sexties in die capiat.

10. He slept well in the night, but a slight exacerbation came on. Cort. ut heri præscripsi.

The cough was urgent at times, but he had no return of the pain of his side, or of fever, and he took his bark until the 15th, when he returned

returned to duty, gradually diminishing the number of doses as was found proper.

CASE XXVIII. Mr. Boon, aged about 32, generally exposed to much fatigue, after drooping about eight days, was seized with acute pain in the left breast, which was always affected, he said, when he was indisposed; and was severer at some times than at others, and with universal pains, heat and thirst, two days before he complained, which was on the 5th of March. A vomit was ordered, which besides operating gave him several stools; and the bark was administered in the afternoon.

6. He rested ill from the severity of pain at times through the night, and his tongue was foul. I prescribed the bark every two hours: P.M. an exacerbation of heat coming on with pain, he took a dose of the bark, which he told me, (and spoke it with pleasure) carried both off in ten minutes after.

7. He enjoyed a good night, and had no considerable exacerbation afterwards. The bark was continued until he perfectly recovered strength on the 20th. This patient had the fever once before, and once since, and always recovered by the same management.

CASE XXIX. Jas. Morris complained on the 7th of May, 1780, of irregular chills and wandering

dering pains; the countenance was fallow, and bloated, and he seemed to breathe with some difficulty.—Ipecac. gr. v. dedi, et pm. sal. cath. amar. ℥i. et cort. ℥ij. bis dedi. He had a fetid smell about him.

8. He passed the night ill from inquietude; head ach, and universal pains. Cort. ℥i. secunda quaque hora dedi, et sal. cath. amar. ℥℥. mane.

9. The fever remitted, but he complained of the other symptoms, and of frequent cough. Ut heri præscripsi.

10. Exacerbation of pains, especially about the thorax, dyspnœa, an urgent cough, and expectorated with difficulty a viscid bloody phlegm, his breath was very fetid, and he had a disagreeable smell about him, and was always costive. Cort. ut heri atq; mann. ℥iss.—vel sal. cath. ℥i. et succ. lemon. recen. ℥iv. utitur. PM. the tongue began to put on the most diseased appearance I have seen so early in the fever.

11. Pain of the left side affecting respiration, with an urgent cough, and no remission in other respects.—Vesicat. lateri admovi, aliter ut heri, atque vino.

This man, before he recovered, had several relapses, and was at last scorbutic, before he returned quite well to his duty on the 28th of June.—He used a good deal of bark and lemon juice, and had also several blisters applied

during that time: the discharge from the first was a yellow gelatinous substance.

CASE XXX. Mr. Dixon, aged 22, of a strong habit, and one of my mates, drooped for two days with chilliness, foreness and fullness about the throat, a loss of appetite, and complained the evening of the 6th of July of such exquisite universal foreness, that touching any part with his finger gave him pain; of lassitude, and of great depression; the tongue was whitish, the pulse was quicker, and skin hotter than natural. He immediately took a vomit, and a sudorific when he went to bed.

7. The fever rather increased through the night, although he had sweated profusely, and there was no remission. A purging draught was ordered in the evening, and the bark to be taken in the morning, which he omitted. PM. there was no remission; the heat, thirst, and universal pains, with profuse sweating, were distressing, and he was costive. *Pediluvio utitur.*

8. No remission, though he had several stools in the night; the sweating still continued, and was profuse when he moved in bed. *Cort. ʒi. secunda quaque hora atque vini pauxillum dedi.* PM. he moaned, sighed, often vomited, and purged, was apprehensive of dying, but sweated less. *Anod. h. s. et vesicat. inter scap. admovi.*

9. He

9. He passed an indifferent night from a continuation of the symptoms. AM. he craved small beer at one time, and milk at another;—there was a slight hæmorrhage from the right nostril. Cort. (10ma hora am. atque alum. gr. x.) ut heri, atque opij gr.ß. vel gr. i. ut visum præscripsi. The discharge from the blister was a yellow serum.

11. The remission of the fever was more distinct, but he complained as usual of all the other symptoms. Cort. atque opium et vinum, ut 9no præscripsi, et crem. tart. gr. xv. PM. he was entirely free of fever, and a little blood, quite cold, came from the right nostril. He never had any return of the fever; however, he complained of the reaching, and of exacerbation of the pains for several days; therefore continued his medicines as on the 11th, only diminishing the number of doses gradually, and instead of opium, the last two or three days of his illness, I ordered him sp. C.C. gut. x. with every dose of his medicine, and more wine.

T A B L E I,

Shews the Number of Fever Patients on Board of the EDGAR, between July 1, 1779, and August 1, 1780;—the Number who died—and the Proportion of Deaths,

Fever Patients.	Died.
475	6
Besides eight Prisoners who had the Fever on Board, and were not sent to the Hospital.	But it is allowed, that the Bark failed in one Case only.—One died by drinking wine.—Two I saw twice only while they were ill.—Hemorrhage neglected by the Attendants, occasioned the Death of one, and the other was almost dead before he complained.

The Proportion of 6 Deaths in 475 Persons, however, is 1 in 79 1-6.

T A B L E II.

Shews the Number of Fever Patients admitted into Gibraltar Hospital between the 19th of Jan. and the 20th of April, 1780, from his Majesty's Fleet, and of the Spanish Prisoners; the Number who died, and the Proportion of Deaths, under the Antimonial and Camphire Treatment.

Fever Patients admitted from the Fleet.	Died (besides those who were seized with Fever at the Hospital, and died)
570	57

Proportion of Deaths is 1 in 10.

Prisoners.	Died (besides two in the launches, and two im- mediately after they had land- ed, when they were going over to Spain.
437	33

Proportion of Deaths is 1 in 13 8-33.

The method of treatment was with antimonials, camphire, and nitre.

TABLE

T A B L E III.

The different Diseases, the Number of Patients of each Disease, the Number who were sent sick from, and the Number who died of each Disease, on Board of his Majesty's Ship Edgar, from June 1, to November 30, 1781; during which Time the said Ship was chiefly employed at Sea on Channel Service, and was docked.

DISEASES.	June.	July.	Aug.	Sept.	Octob.	Nov.
Fever	22	12	7	14	13	29
Pleurisy						1
Pain of the Breast						1
Pain of the Side		2				
Dysentery				1		
Belly-ach		1		5	1	1
Diarrhæa		1			1	
Reaching		1				
Indigestion		1		1		
Obstruction of the Abdominal Visc.			1			
Scurvy	2	1	1	2	1	2
Rheumatism	2			1	3	3
Head-ach	3	3	3	1	3	1
Cough	1			1	1	
Sore Throat	2	3				1
Epilepsy	1		1			1
Ophthalmia	3	1		1	2	
Tooth-ach				1		1
Nephritis		1			1	1

TABLE III. CONTINUED.

DISEASES.	June.	July.	Aug.	Sept.	Oct.	Nov.
Plethora			1			
Hæmorrhoides	2					
Eruption				3		1
Scald	1	1			1	
Contusion	13	5	2	7	3	11
Concussion of the Brain				1		
Strain	3	2		1	3	1
Fracture				1		
Excoriation	1		1			1
White Swelling		1				
Wound	1		3	2	2	
Inflammation	1			1		
Diseased Testicle	1					
Furuncle	1	1	2		2	
Abscess					1	
Fistula in Ano						1
Cancered Lip	1					
Ulcer	1	1	2	2	1	2
Accident			1			
No. of Patients.	62	38	25	46	39	59
No. of Deaths			1			
No. of Patients sent to Hospitals	4	15				29

TABLE IV.

Continuation of the preceding TABLE, from DEC.
1781, until MAY, 1782.

DISEASES.	Dec.	Jan.	Feb.	March.	April.	May.
Fever	23	24	17	15	18	3
Peripneumony			1			
Pleurisy			1			
Pain of the Breast	1	4	1			
Pain of the Side		1			3	
Pain of the Stom.					1	
Dysentery		1				
Belly-ach					1	
Rheumatism	2		2	2		1
Head-ach	1				2	
Cough	4	1		1	6	
Sore Throat	3	2	1	3		
Epilepsy		1				
Ophthalmia					2	
Blindness					1	
Nephritis		1			1	
Suppres. of Urine				1		
Hemorrhoides		1			2	
Eruption	1	1	1	1		
Itch	1		2	12	80	
Scald	3		1	4		2

TABLE

TABLE IV. CONTINUED.

DISEASES.	Dec.	Jan.	Feb.	March.	April.	May.
Contusion	9	7	7	1	14	2
Strain	2		1	4	1	
Fracture		1		1		
Wound		4	8	4	2	
Inflammation	3	1	2	1	1	
Ulcer		1	2	2	3	1
Drowned					1	
No. of Patients	53	51	47	52	139	9
No. of Deaths					1	
No. of Patients sent to Hospitals	4	6	4	3	9	3

R r

TABLE

T A B L E V.

Shewing the Event of the particular Diseases.

DISEASES.	Number.	Number sent to Hos- pitals.	Deaths on Board.
Fever	197		33*
Peripneumony	1		
Pleurisy	2		
Pain of the Breast	7		
Pain of the Side	6		
Pain of the Stom.	1		
Dysentery	2		
Belly-ach	9		
Diarrhœa	2		
Reaching	1		
Indigestion	2		
Obstruction of the abdominal Visc.	1		1
Scurvy	9		2
Rheumatism	16		9
Head-ach	17		2
Cough	15		5
Sore Throat	15		
Epilepsy	4		
Ophthalmia	9		
Blindness	1		1
Tooth-ach	2		
Nephritis	5		
Plethora	1		
Suppres. of Urine	1		

* Nineteen of those came from a cartel, a sickly ship ; and another from the hospital, sick of the fever.

TABLE V. CONTINUED.

DISEASES.	Number.	Number sent to Hof- -pirals.	Deaths on Board.
Hemorrhoides	5		
Eruptions	8		
Itch	95		
Scald	13		
Contusion	84		5
Concussion of Brain	1		1
Strain	18		
Fracture	1		1
White Swelling	3		1
Excoriation	3		
Wound	26		
Inflammation	10		
Diseased Testicle	1		
Furuncle	6		
Abcess	1		
Fistula in Ano	1		1
Cancered Lip	1		1
Ulcer	18		12
Accidents	1	1	
Drowned	1	1	
Whole Number	620*	2†	76†

* Besides venereal patients (one of whom was sent to the hospital) and slight complaints.

† One, a boy, died of an accident, and the other fell overboard in bad weather.

† Besides 19 of them being cartel men, several were sent twice for the same complaint.

TABLE VI.

The different Diseases, the Number of Patients of each Disease, which occurred on Board of his Majesty's Ship the Edgar, between July 1, 1778, and August 1, 1780.

DISEASES.	July.	Aug.	Sept.	Octob.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	No. of Patient	Deaths	sent to H.	with Fev.
Fever	1	5	29	59	61	36	28	30	46	49	35	40	56	475	6	28	28
Measles				3	4	2								9	1		
Erysipelas							1							1		1	
Dysentery		1	1					1	1	6	1			11			
Belly-ach		1	2	1	2	1	2		1	1				11			
Diarrhæa		2		1	1				1					5		2	
Worms								1						1			
Indigestion				1										1			
Scurvy		6		2	3	3			8	8	16	3	12	61		2	
Rheumatism	1		1	4	8	10	5		1	5	4	2	1	42			
Gout			1											1	1		
Scrophula								3						3		2	
Head-ach		1	1	16		1	1							20			
Cough			3	11	1	9	2	2		1		2		31		6	
Sore Throat		1		1		11	1					1		15			
Hemorrhage				1										1			
Hemoptysis			1											1			
Consumption			1											1			
Ear-ach							1		1					2			
Giddiness		1											1	2			
Epilepsy			1	1			2	1	1					6			
Apoplexy							1							1		1	
Mania					1									1		1	
Ophthalmia					2	1		2		1	1			7			
Blindness				1	1									2		2	
Nephritis			1	1			1				1		1	5		1	
Hemorrhoides			1											1			
Old Age						1								1		1	
Eruption			1	1		1	1	2	1	4	1			10		1	

TABLE

TABLE VI. CONTINUED.

DISEASES.	July.	August	Sept.	Octob.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	No. of Patient	Deaths	sent to H.	with Fev.
Itch				3	4	5					1			23			
Scald		1	1		5		1	3	1		1			13			
Strain		1	2	2	4	3		3	2	2	2	1	3	25		1	
Rupture	1	1	1		1	4		1						9		2	
Contusion		6	10	15	7	9	6	14	13	4	8	3	6	101		2	
Dislocation						1								1			
Fracture		1	2		1	3		2		1			1	11		5	
Excoriation							1	1	2					4			
Wound	1	1		5	5	3	20	3	10	1	2		1	52		7	
Inflammation		2	2	2	1	4	1		1	1		1	1	16		1	
Furuncle				2	1		2	2	2					9			
Abscess				1	2			1	3	1		1		9			
Ulcer				6	3		3	6	3	4	2	2		29		3	
Accident													2	2	2		
No. of Patients.	4	31	62	140	130	0	80	78	99	85	76	56	85	1032			
No. of Deaths						2					3	3	2		10		
No. of Patients sent to Hospitals	3	4	1	5	6	12	10	21	7	2	2	4				77	
No. of ditto sent for fevers	1		1	1	2	4		10	2	2	2	1					28

Of the 77 who were sent to the Hospital, 11 were Spanish and English prisoners, 5 were invalids, 5 were sent by survey, and 4 were convalescents.

Of the 28 sent with fevers, 11 were Spanish and English prisoners, and 4 were convalescents.

T A B L E VII.

Shows the Proportion of Deaths of Fever Patients on Board of his Majesty's Ship Edgar, from June 1, 1781, and May 7, 1782, the Day on which I was superseded, exclusive of 19 men from a cartel, who were sent to the Hospital as soon as possible after they complained; and the Man who came from the Hospital ill, and was sent back the next Day, under Treatment of the Bark.

Number of Deaths.	died.
177	None.
Proportion of Deaths in 177	None died.

Of the 177, 13 were sent to hospitals, but 4 of the 13 were sent when the ship was in dock, because they could not be conveniently taken care of, on board of the hulk; and of the remaining 9, most of them were sent when we were going to sea, as it would be judged imprudent to sail with the sick.

CON-

CONCLUSION.

FROM long experience, I hope I may be permitted to repeat, that I have never, in any one case of ship fever, on board of the Edgar, discovered petechiæ, though diligent search has been made for them. Could this proceed from any other cause than the method of treatment with the bark?

I can further say, that in no situation whatever, either from observation or enquiry, have I found the ship fever to be very fatal, or so highly contagious as to put the ship past service, but on board of such ships as Dr. James's powder, tartar emetic, or the antiphlogistic methods were followed. This is not meant as any reflection on the surgeons of such ships;—it can be none—because those methods are the general practice throughout the kingdom; and it is only mentioned to lament that a practice so destructive, should hitherto have been so universal.

Besides the proofs already adduced to confirm the positions stated in the Introduction, many more (were it not for swelling the volume)

might

might have been added from my own observations, since the manuscript was sent to the printer in August, 1780. One in particular, the surgeon of the 2d battalion of the 73d regiment, obligingly furnished me with in 1781. I might greatly enlarge upon it, as it is, *ad rem*, almost in every circumstance; but since to such proofs however valid or pertinent in themselves, it may be objected, that they did not fall under the author's observations, I purpose decline inserting it. To the same objection, should it still be made to the few such proofs I have inserted, may I be allowed to answer, that, as few practitioners in physic will have so many cases come under their care, as the preceding observations are founded on; and consequently as few readers will ever have, experimentally, authority to deny the validity of them; I hope those who are under such a predicament, will not be more rash to condemn or reject upon hear-say, than I have been to impose the observations of others for my own.

In a word, I have no more doubt than of my own existence, that every practitioner will be convinced of the truth of those Observations on the Ship Fever, if they will take the proper steps to be convinced:—that is, if divesting themselves of prejudice, they will make a conscientious trial of treating the ship fever with
bark,

bark, as I have done, and compare the event, with that of treating it in all the other methods which have been hitherto adopted—And in making this trial, it must be an invariable rule *To give the bark liberally and early—so early, as in a manner to prevent the fever.*

I wish not to discourage others from promoting the benefit of the service—I only do myself justice, by declaring, that after having served the public upwards of twenty-one years, and ruined a good constitution, by frequent attacks of sickness, incurred by attending my duty in various climates, my circumstances are worse than when I first entered into the service; and that my only recompence for the irretrievable loss of those blessings, is the reflection that I have been instrumental, under Providence, in preserving many lives which, in human probability, would have fallen victims to a contrary practice—a recompence that, were it possible, would be too cheaply bartered for any thing in the power of man to bestow.

When the unprejudiced reader, who is acquainted with the writings of those physicians, who have strongly inculcated their apprehension of inevitable danger, from an early administration of the bark in fever, shall seriously consider

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the

the historical facts we have gone through, in the preceding Observations, is it not more than probable he will conclude—"That many of those gentlemen, have adopted the idea of the danger, which is to ensue from that practice, on the authority of others who have gone before them?" May he not be led to this conclusion, by reflecting, "that surely if bark, in the naval practice, where men are more intemperate, and labour under greater disadvantages, from their situation, when sick, than people on shore, is found not only innocent, but effectual when given in the beginning of fevers, even without any previous evacuation; and if it so far excels other methods of cure, as has been demonstrated by numerical calculations, the practice ought to be fairly tried on shore." If refusing, indignantly, to listen to reason on the most trivial subject, be thought illiberal—how are we to judge of those who disregard the most important facts, even when they relate to a most interesting subject?

Supposing, however, that the advocates for different management, should retort our own words respecting bark—"That some die, because they had not taken a sufficient quantity of *their* medicines to cure them;"—should we grant their position, the issue of the argument will still

still be, that for one patient under the bark management, fifteen have died under other methods of treatment.—We therefore cannot entertain a doubt, that bark will be uniformly found superior to all other remedies. The different events, therefore, render the various methods of treating the ship fever a very interesting subject, particularly to government; because, though the faculty on shore, should, from repeated facts of this nature, adopt the bark method of managing fevers, the pay and perquisites of those who are employed in the navy, will never, while they are on the present establishment, permit them to put it in practice. The consequence is obvious.

The subject thus fairly stated becomes so delicate, that a person in publick service cannot prosecute it, more particularly, after what we have already demonstrated in the physical journal, and in the fourth table.—We therefore leave the matter, important as it is, before those who have the power to remedy it—and trust, they have inclination to put their power in force.

But to conclude. It is hoped we have now proved the positions laid down in the introduction, namely, “That infection often rages amongst us, unheeded and unsuspected.”—
“That infection may be distinguished by the

diurnal symptoms we have pointed out.”—
“ That bark far excells all other remedies extolled for curing the ship fever.”— “ And that delaying to administer bark early in fevers, has been attended with fatal effects to mankind.”—For those purposes irrefragable proofs were necessary, and we have adduced them, in a series of facts collected from experience. To the candour of those, who have, themselves, had equal opportunities of comparing the success of various methods of cure, we, with all humility, appeal. To their experience, clearly and fairly stated, we will readily submit. ’Tis true we can neither boast of elegance of style; of energy of expression; of well-turned periods; nor of learned quotations, qualities essentially necessary to form a good writer;—but, satisfied that we have stated facts, we will think ourselves happy if we have conveyed our meaning intelligibly; and happier still, if it shall be found that we have contributed to the preservation of our fellow creatures, with the hopes of which we may reasonably flatter ourselves, unless we can be persuaded that the *nature* of infection, and the *properties* of bark, shall hereafter entirely change.

P O S T C R I P T.

Kingston, near Portsmouth, Dec. 29, 1782.

The Author having accidentally met with Dr. *William Saunders's* pamphlet, entitled, "Observations on the superior efficacy of the red Peruvian bark, in the cure of agues and other fevers, published for *J. Johnson*, St. Paul's Church-yard, and *J. Murray*, in Fleet Street," on the 27th instant only, had not time, as he wished, to write, upon the subject, to Dr. *Saunders*, for whom he has a very high regard, the preceding observations, being, then, very near printed, and the author expecting, every hour, to proceed on his voyage; the Doctor, though he shews—the use of bark in the cure of intermitting fevers, has taken no notice of several testimonies of its inestimable value in continual fevers, Dr. *Millar's* works, who for various reasons, merits the title of the Sydenham of the Age, the *Physical Journal*, published by the author in 1777, and particularly Dr. *Clark's* book on East-India diseases. He would recommend it to the Doctor to mention them in the next edition of his pamphlet, as they contain accounts
of

of the most liberal, extensive, and the *earliest* trials of bark in fevers, which have ever yet appeared before the publick. These testimonies will rather promote than frustrate the Doctor's benevolent design;—besides, 'tis a justice we owe to each other, as well as to mankind.

F I N I S.

E R R A T A.

Page 2 of the Contents, line 3, for Numbers read Number.

INTRODUCTION.

Page 2, line 4, for dea, read Idea.

4, in the note, for two, read three years—besides other ships.

22 in the note read Chap. xlix. v. 6.

27 5, *dele* 7th.—line 7, for extoled, read extolled.

28 last, for produced, read failed to produce.

OBSERVATIONS.

11 3 and 4, for by a scurvy, read for scurvy.

58 10, for officers, read officer.

63 21, for harrassing, and wherever it occurs, *r.* harassing.

64 3, for hammocs, and wherever it occurs, *r.* hammacoes.

79 19, *dele* had.

80 10, for of whom, read one of whom.

108 11, for in new, read for new.

112 in the note, for pages 71 and 72, read 85 and 86.

132 18 & 19, for Cannanictel, read Connecticut.

150 14, for chilness, or wherever chillness occurs, *r.* chilliness.

169 11, for reaching, and wherever it occurs, read retching;
and for belly-ache, read belly-ach.

189 5, for superbibendo menthæ infusionem, read superbi-
benda menthæ infusione.

192 16, for 24 read 14.

210 2, for birth, read berth.

212 17, for sweat, read sweated.

215 19, *dele* repeated.

222 19, for admoui, read admovi.

223 26, for fuerent read fuerunt.

237 2, read Part III.

17, for to the 31st July, 1780, read 7th May, 1782.

251 14, for sodorific, read sudorific.

257 17, for febrifage read febrifuge.

288 10, for thæ, read theæ.

299 after Case XXX. for the third head, see the cases which
terminated fatally, p. 263; and for the inferences,
see the Conclusion.

312 10, for purpose read purposely.

313 10, for twenty-one, read twenty-three.

ERRATA OF THE TABLES.

In Table IV. page 145, is omitted the Column which was to show
the number who died at hospitals.

Part II. ought to have ended with Table III. page 229.

Table VI. of Part III. ought to have been where Table I. is, and
Table I. and II. to have been II. and III.

Table IV. V. and VI. of Part II. ought to have followed Table
III. in Part III. and for *Juno* ought to have been *Edgar*, and
the title of Table VI. should be—'Shewing, &c. Diseases in the
two preceeding Tables:—and the title of Table VII. should
have been,—'Shows, &c. Death in the three preceding Tables,'
and to be Table VII. in Part III.

Table III. page 302, ought to be Table VIII.

Table IV. page 304, ought to be Table IX.

Table V. page 306, ought to be Table X. and to have been entitled
—'Shewing, &c. Diseases in the two preceding Tables.' The
titles of the two right-hand columns of this table, are misplaced
—'Deaths on board'—ought to have been—'Numbers sent to
Hospitals;—and *vice versa*.

Table VII. page 310, ought to be entitled, Table XI.; the left-
hand column of which ought to be entitled Number of *Patients*
—instead of *Deaths*.

