

A practical account of the fever commonly called the bilious remittent, as it appeared in the ships and hospitals of the Mediterranean fleet : with cases and dissections : to which are added, facts and observations, illustrative of the causes, symptoms, and treatment of fever, in the Mediterranean, comprehending the history of fever in the fleet, during the years 1810, 1811, 1812, 1813, and of the Gibraltar & Carthage fevers / by William Burnett, M.D., physician of the fleet, late physician and inspector of hospitals to His Majesty's fleet in that sea.

Contributors

Burnett, William, Sir, 1779-1861.
Great Britain. Colonial Office. Library
King's College London

Publication/Creation

London : Printed for J. Callow,..., 1814.

Persistent URL

<https://wellcomecollection.org/works/hmpvnnwn>

License and attribution

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

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

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



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



KING'S *College* LONDON

BURNETT, WILLIAM
FCO2 RA650.6 M43 BUR
Library

A PRACTICAL ACCOUNT OF THE
FEVER . . .

1814

201176136 X

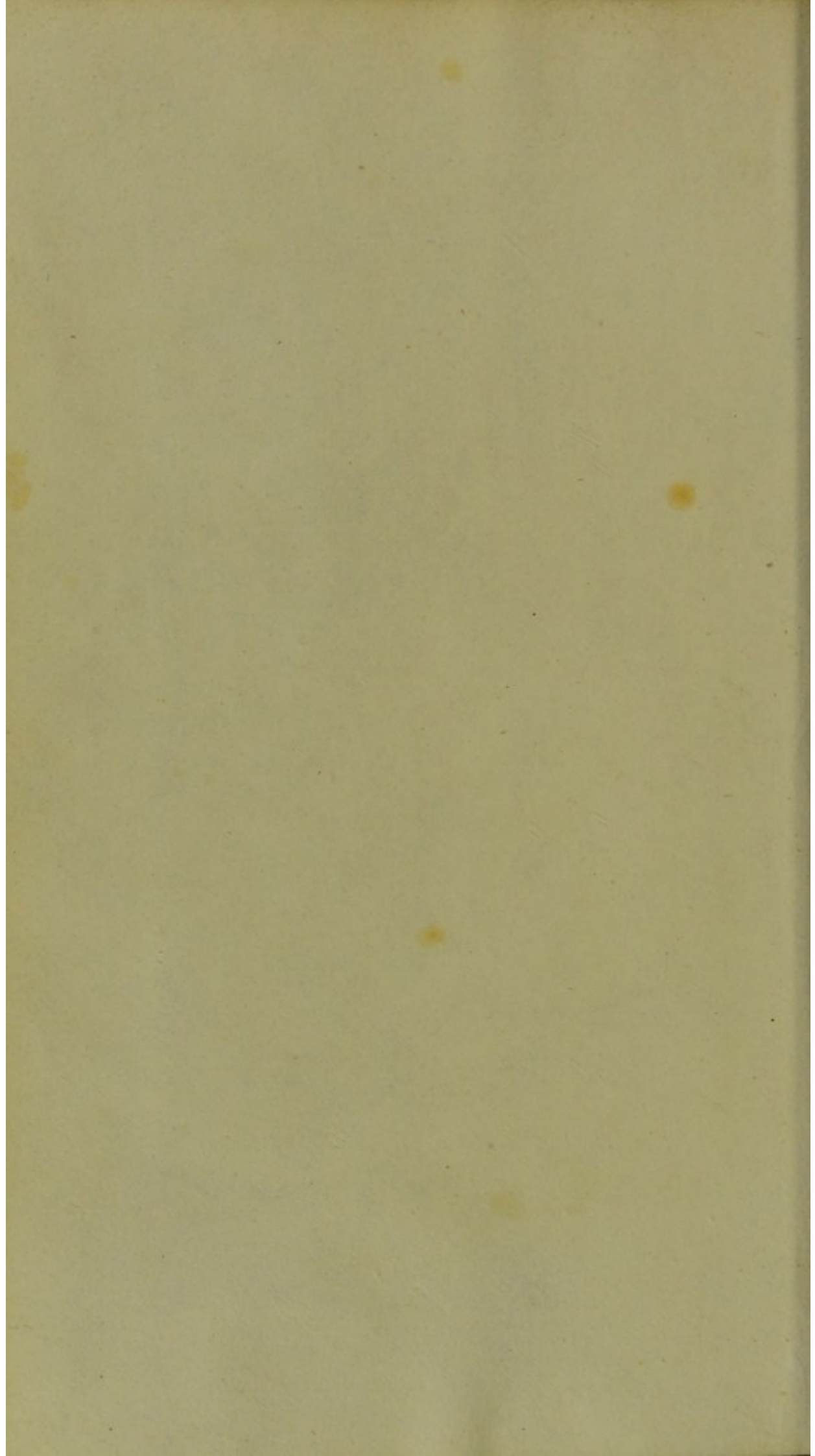


KINGS COLLEGE LONDON



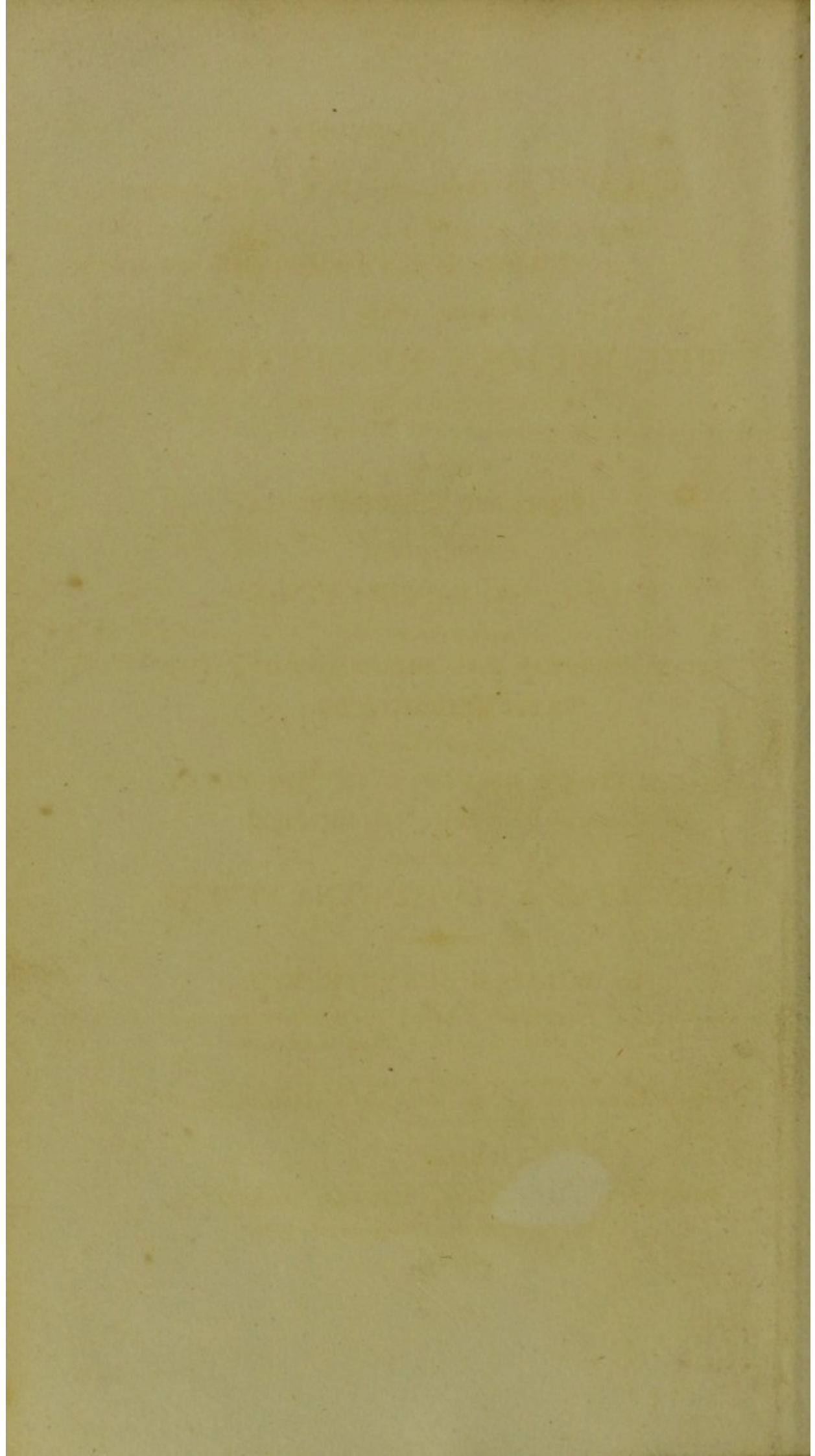
Transferred on permanent loan

MMVII



3784

800



A
PRACTICAL ACCOUNT
OF
THE FEVER
COMMONLY CALLED
THE BILIOUS REMITTENT,
AS IT APPEARED IN THE SHIPS
AND HOSPITALS OF THE MEDITERRANEAN FLEET;
WITH
Cases and Dissections.
To which are added,
FACTS AND OBSERVATIONS,
ILLUSTRATIVE OF THE
CAUSES, SYMPTOMS, AND TREATMENT OF FEVER,
In the Mediterranean;
COMPREHENDING
THE HISTORY OF FEVER IN THE FLEET,
During the Years 1810, 1811, 1812, 1813;
AND OF THE
GIBRALTAR & CARTHAGENA FEVERS.

—
BY WILLIAM BURNETT, M.D.

PHYSICIAN OF THE FLEET; LATE PHYSICIAN AND INSPECTOR OF
HOSPITALS TO HIS MAJESTY'S FLEET IN THAT SEA.

Opinionum commenta delet dies, naturæ judicia confirmat.—CICERO.

London:

PRINTED FOR J. CALLOW, MEDICAL BOOKSELLER,
No. 10, Crown Court, Princes Street, Soho.

1814.

1377309

Smith & Davy, Printers, Queen Street, Seven Dials.



TO
THE RIGHT HONORABLE
LORD VISCOUNT MELVILLE,

FIRST LORD OF THE ADMIRALTY,

ONE OF
HIS MAJESTY'S MOST HONORABLE PRIVY COUNCIL;

&c. &c. &c.

AS A SMALL, BUT SINCERE TESTIMONY

OF

GRATITUDE AND RESPECT,

THIS VOLUME IS INSCRIBED,

BY, MY LORD,

YOUR LORDSHIP'S MOST OBEDIENT,

AND FAITHFUL HUMBLE SERVANT,

WILLIAM BURNETT.

THE GREAT WORKS

LORD PETER OF WESTMINSTER

THE LORD OF THE TEMPLE

OF

THE UNIVERSITY OF WESTMINSTER
 HIS MASTER'S NAME IS KNOWN TO ALL

and in every part of the world, and in every
 language, and in every age, and in every
 country, and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

and in every part of the world, and in every
 language, and in every age, and in every country,
 and in every part of the world, and in every
 language, and in every age, and in every country,

PREFACE.

THE occurrence of Fever in the Mediterranean Fleet, has of late years been so frequent, and in many instances so serious, both in it's immediate and remote effects, and so great a difference of opinion has prevailed respecting it's nature, and consequently as to the means to be employed for the cure, that it is presumed the following account of the disease, by one who has had (during a period of upwards of ten years' service on that station) ample opportunity of treating it in it's various stages, will not be useless to the public, or unacceptable to the members of the profession.

The Fever which has prevailed in the Mediterranean Fleet, more particularly towards the end of summer, or during the autumnal months,

bears in every respect so striking a resemblance to the epidemics which have visited so awfully the Garrison of Gibraltar, and Spanish Cities on the coast of the Mediterranean, that the subject has acquired a peculiar interest, and demands our attention; more especially at a time when our intercourse with them is so great, and so likely to be extended.

The object of the first part of this volume, is to give *a concise, faithful and practical account of the disease, as it appeared in the ships and hospitals of the Mediterranean fleet*; together with such observations respecting its treatment, as the author, from a very extensive personal experience, and an attentive observation of the practice of others, can recommend with the utmost confidence.

In order to elucidate the subject, a selection has been made of cases, treated in the Naval Hospital, Mahon, under the author's directions, and several others added, with which some of the Surgeons of the fleet have obligingly favoured him.

Those cases which terminated fatally at the hospital, are accompanied by *a faithful report of the morbid appearances found on dissection*, which it is considered will form no unimportant addition to a work of this nature.

It was not originally the intention of the author to have published the second part of this volume, but he believes it unnecessary to apologize for laying before the public so valuable a collection of evidence, relative to the causes, symptoms, and treatment of fever in the Mediterranean.

The author has also in this part of the work, endeavoured to remove the obscurity in which the fevers of Gibraltar and Carthagera have hitherto been enveloped. The attempt to accomplish this desirable object, has been attended with many difficulties, some of them of an insurmountable nature; and though he has not therefore been enabled, to throw all the light he could have wished on this important subject, yet he feels assured that this, the only history of

these diseases which has appeared, will not be read without interest, by the members of the profession ; particularly the clear, and (he hopes) satisfactory manner, in which the fever in the 67th Regiment at Carthagená, is traced to the influence of *marsh miasma* ; the powerful *negative* evidence which he has brought forward of it's non-contagious nature at both places, and consequently the *very great improbability of it's being an imported disease.*

The Medical Officers of Gibraltar, having constantly declared the fever of Carthagená to be perfectly similar with that which has committed such devastations amongst themselves, the pressing necessity will be seen of resorting to measures very different from the establishment of a *quarantine*, to prevent this fever from again committing such ravages in that Garrison.

To those who are unacquainted *with the urgent nature of this disease in it's more violent form*, it may appear that the author has recommended too liberal evacuations ; to this he has

to reply, that a success, which has never been exceeded in the treatment of any epidemic, (not only in his own practice, but in that of every surgeon in the fleet who has given them a fair and unbiassed trial,) fully warrants him in so doing. So far has *early* and liberal blood-letting been from inducing extraordinary debility, or a protracted convalescence, that *the speedy restoration to perfect health*, has surprised not only the patient, but his medical attendant. If the testimony of the respectable gentlemen whose names appear in this volume, be not sufficient, he can appeal to the Admirals of the fleet under whom he has had the honor of serving, and to the Captains of the ships in which this fever has appeared, for the truth of his assertions.

From the beginning of the year 1810, till October 1813, during which time the author was at the head of the Medical department of the Navy in the Mediterranean, (which he was obliged to relinquish on account of ill health) no disease, excepting fever, has been epidemic in the fleet. Pneumonic attacks, from

the very variable state of the weather, have been frequent ; but, on this head, he has nothing new to offer : it is a disease, in it's more acute form, not likely to be mistaken, and the principles on which the treatment of it should be conducted, are already well known ; but he wishes to caution the practitioner against *the insidious form of the milder attack of this disease*, which is but too often considered of little moment—as a *catarrh*—and the cure intrusted to small doses of antimony and a great coat ; often to nature ; with pain has he witnessed the effects of this in the *melancholy increase of consumptive cases*, which the summer's heat has brought before him. *A patient can never be safe under the treatment of antimony alone, while cough, and local affection of the chest or side remain.* This, it may be said, is a truism, of which no medical practitioner can be supposed ignorant : it is to be wished, however, that this principle were acted upon, as well as known.

Dysentery has, but in very few instances, appeared as an idiopathic disease.

Scurvy and ulcer are now nearly unknown in the Mediterranean, which may be fairly attributed to the excellent regulations and unceasing care of the Commander in Chief, in procuring liberal supplies of fresh meat, vegetables, and lemon juice; together with the great attention paid to ventilation, cleanliness, dry decks, and generally to the comforts of the ships' companies of the fleet.

This volume has been written amidst the vicissitudes of a sea life, and the discharge of active professional duties, unaided by the advantage of a library; but perhaps the latter was not necessary to its composition. With such materials as the author possessed, unquestionably a more extensive work might easily have been produced; but it has been his wish to write an useful book, not a large one: he hopes it will be found the former; and under this impression, submits it to the candour and judgment of the public, confident, that “*whilst speculative opinions pass away, the inferences drawn from nature and truth, remain permanently on record.*”

CONTENTS.

PART I.

	<i>Page.</i>
SUMMER Fever	3
General Account of the Autumnal Fever	5
Probable Causes	13
Cure.. 1st stage	19
— 2d stage	26
— 3d stage	29
Convalescence	31
<i>Effects of particular Remedies.</i>	
Emetics	32
Sudorifics	33
Antimony	ib.
Bark	ib.
Mercury	34
Pedeluvium	35
General Appearances on Dissection	37
Cases and Dissections by the Author	40
Five Cases communicated by Dr. Alex. Ross ...	101
Three ————— Mr. Boyd	110
Three ————— Mr. Brien	118
Two ————— Mr. Rudland	122
<i>Cases of Gibraltar and Carthagera Fevers, in the Appendix.</i>	
Seven Cases in the 7th Veterans	275
Case of Gibraltar Fever in the Conqueror, in 1804	283
Case of Carthagera Fever in the Leyden	285

PART II.

HISTORY OF FEVER IN THE FLEET.

	<i>Page.</i>
In the Goliath off Malta, 1799	131
—— Diadem in Mahon, 1800	132
—— Achille at Cadiz, 1810	135
—— San Juan at Gibraltar	137
—— Fleet at Mahon	139
—— Warrior, Faro of Messina	ib.
—— Eagle, &c. at Malta	141
—— Leviathan at Mahon	151
—— Leviathan at Gibraltar	147
—— Transports from Carthagea	145
—— Kent off Toulon	147
—— Repulse, Kent, Centaur and Warspite, in Mahon, 1811	148
—— Temeraire and Invincible in Mahon	154
—— Pomone, and amongst the Prisoners of War at Malta	166
—— Weazle at Malta	169
—— Trident at Malta	171
—— Trident and Victorious at Malta, 1812 ..	172
—— Rodney and Rainbow in Mahon	183
—— Men of War and Transports in Mahon ..	176
—— Ajax in Palermo Bay	177
—— Tremendous in Mahon	175
—— Alcmena in Malta Harbour and at Sea ..	187
Slight Cases prevalent in the Fleet	189
In the Bombay, 1813	190
—— Berwick	194
—— Armada	198
—— Scipion	199

GIBRALTAR AND CARTHAGENA FEVERS.

	<i>Page.</i>
Gibraltar Fever in 1804.....	201
Fever generally prevalent there in the Autumnal Months	202
Symptoms and Treatment in 1804.....	203
Mr. Griffiths's Account of this Disease	206
Case of Gibraltar Fever in the Triumph, 1804 ..	208
Fever of 1810	211
Mr. Kidston's Outline of the Disease	212
Mr. Pym's Account of the Disease	213
Observations on the Cases of <i>Bulam</i> in the Seventh Veterans	249
Fever at Carthagenæ in 1804.....	214
Medical Topography of Carthagenæ	216
Fever in the 67th Regiment at that place in 1812..	219
Progress of the Disease in the 67th Regiment....	220
Symptoms and Treatment.....	221
Carthagenæ Fever as it appeared on board the Leyden in 1812.....	222
Symptoms of this Fever as described by the Spa- nish Physicians, and their Plan of Treat- ment	226
Doctor Riseuno's Account of the Symptoms and Treatment of the Carthagenæ Fever in 1804, 1810, 1811, and 1812	228
Extract from the <i>Economico Politico</i> of Cartha- gena.....	240

OBSERVATIONS.

General	247
Fevers of Mahon, Gibraltar, and Carthagenæ, agree in their Premonitory Symptoms and Terminations	248

	<i>Page.</i>
Striking Resemblance which the Yellow Fever of the West Indies bears to the Autumnal Fever of the Mediterranean	251
Slight Cases occur in the West Indies and Ame- rica as well as in the Mediterranean	254
Doctor Huck's Opinion of the Yellow and Bilious Fevers	255
Many Patients in the West Indies immediately relieved by the Use of early Evacuations	256
General Belief in the Contagious Nature of the Fevers of Gibraltar and Carthagenæ	257
Examination of this point, and remarkable In- stances of the non-contagious Nature of the Disease at Gibraltar	258
View of the General Health of Carthagenæ and the adjacent Sea Ports previous to 1804	264
Remarkable Proofs of the non-contagious Nature of the Carthagenæ Fever	267 and 270
No Instance of the Disease being contagious in the Fleet, and General Conclusions	270

APPENDIX.

Mr. Kidston's Return of the Men taken ill, &c. in the Seventh Veterans in 1810	281
---	-----

ERRATA.*

Page 4, line 25, *for* viscous *read* viscus.

126, 1, *for* bowles *read* bowels.

150, 12, *for* erysipelatus *read* erysipelatus.

159, 1, *for* who *read* which.

209, 15, *for* neutal *read* neutral.

252, 12, *for* virum *read* virium.

* The Author having been employed on professional duty, at a distance from London, during the progress of the work through the press, some typographical errors have unavoidably insinuated themselves.

Page 1. The first part of the book is devoted to a general introduction to the subject of the history of the English language. It discusses the various factors which have influenced the development of the language, and the changes which have taken place in its vocabulary, grammar, and pronunciation. The author also deals with the question of the origin of the English language, and the influence of other languages upon it.

APPENDIX

Page 1. The first part of the book is devoted to a general introduction to the subject of the history of the English language. It discusses the various factors which have influenced the development of the language, and the changes which have taken place in its vocabulary, grammar, and pronunciation. The author also deals with the question of the origin of the English language, and the influence of other languages upon it.	1
Page 2. The second part of the book is devoted to a detailed study of the history of the English language. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.	2
Page 3. The third part of the book is devoted to a study of the history of the English language in the United States. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.	3
Page 4. The fourth part of the book is devoted to a study of the history of the English language in the British Empire. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.	4
Page 5. The fifth part of the book is devoted to a study of the history of the English language in the Commonwealth of Nations. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.	5

Page 6. The sixth part of the book is devoted to a study of the history of the English language in the Commonwealth of Nations. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.

Page 7. The seventh part of the book is devoted to a study of the history of the English language in the Commonwealth of Nations. It discusses the changes which have taken place in the vocabulary, grammar, and pronunciation of the language, and the influence of other languages upon it.

PART I.

In superioribus orbiter admonui, è febris nonnullas in malignarum classe vulgo reponi, cum indomita symptomatum saevitia, quae huic opinioni patrocinari videtur, non à venenosa morbi indole, sed à therapeia perperam administrata proficiscatur.

SYDENHAM.

Practical Account of the Trade

of the British Colonies

PART I.

OF THE TRADE OF THE WEST INDIES

IN THE YEAR 1785

By J. H. B. Esq. of the Middle Temple, Barrister at Law.

London: Printed by J. H. B. Esq. of the Middle Temple, Barrister at Law.

Part of the Trade of the West Indies

being a Description of the Trade of the West Indies

and the manner of carrying it on

and the manner of carrying it on

and the manner of carrying it on

and the manner of carrying it on

and the manner of carrying it on

and the manner of carrying it on

and the manner of carrying it on

A
PRACTICAL ACCOUNT OF THE FEVER,

COMMONLY CALLED

The Bilious Remittent;

AS IT HAS APPEARED IN THE

Ships and Hospitals of the Mediterranean Fleet,

IN THE YEARS 1810, 1811, 1812, 1813.

HISTORY OF THE DISEASE.

DURING the spring months, and the early part of summer, the ships of the fleet have generally enjoyed an exemption from fever, and with one exception, I am not acquainted with any instance where the crew of a ship has been attacked, after being some time at sea; the disease, in its epidemic state, being confined generally to such ships as are, or have been, refitting in port.

Towards the end of June, or commencement of July, slight attacks of fever begin to pre-

sent themselves; the patient complains of considerable head-ach, with nausea and prostration of strength; the eyes are somewhat suffused, and the countenance a little flushed; the tongue is white and moist, and he has considerable thirst; the skin is at times moist, and the temperature little increased; at others it is dry, and the heat pungent. The pulse is sometimes full and strong, beating at the rate of 120 in the minute; in others it is less so, and in some the increase of velocity is scarcely perceptible: there is commonly constipation of the bowels, and loss of appetite. Though this is, for the most part, the appearance of the fever of the summer on its first attack, yet in many instances it has been found to put on a far more serious aspect, and assume the form of the severer degree of this fever, which occurs in the autumn. This, however, has in general been traced to some irregularity committed by the patient, as exposure to the sun or night dews; or else to the plan of treatment adopted at the commencement of the disease. At this time the gastric symptoms are seldom severe, the head being the viscous most materially affected, and to the relief of this, and the free evacuation of the intestines, must the principal attention of the medical attendant be directed. As the summer advances, the attacks become more formidable, and

accordingly require the most prompt and efficacious treatment.

The patient first feels a degree of lassitude and prostration of strength, (in some the latter appears very considerable;) this is succeeded by a sense of chilliness, extending along the spine and lumbar region, which is followed by increased heat and severe head-ach, referred chiefly by the patient to the forehead and temples; and in the severer cases it extends in the course of the longitudinal sinus. A deep seated pain in the orbits is also experienced; the eyes are sometimes unnaturally prominent, with a watery inflammatory appearance, and impatience of light. There is often a very considerable degree of redness and tumefaction of the face, the skin having a glossy shining appearance; the flushing of the face frequently extending downward, as far as the superior part of the sternum: the tongue is white or slightly yellow, and commonly moist, with a bad taste in the mouth. There is a sense of uneasiness in the epigastric region, with nausea, and in some patients a vomiting of a bilious-like matter; pains in the joints, back, and calves of the legs, disturbed sleep, and constipation of the bowels, are amongst the symptoms usually observed. The pulse for the most part is full and hard, though not always, particularly where the gastric symp-

toms are severe; at other times it is oppressed, but rises under the lancet. In its first state, which generally accompanies the severe local affection of the brain, it beats from 110 to 120 in the minute, sometimes upwards of 130, but at this period it is not a very common occurrence. In its second state, which generally accompanies a more advanced stage of the attack, the pulse seldom exceeds 90 or 100, and is not so full; nay, is frequently observed to be slower than natural; there is generally a throbbing of the carotid and temporal arteries, with great thirst and considerable anxiety. The superior parts of the body are sometimes covered with a profuse perspiration, but generally the skin is dry, and the temperature increased; if the disease be advanced, the heat is often pungent, and there is through its whole course a loathing of food. Severe rigors sometimes, but not very commonly, precede the hot stage of the disease.

In many cases, however, this fever makes its attack without any very sensible previous indisposition, and in several instances, the patient, while at his usual work, has dropped down in a state of insensibility; but this stage of the disease seldom lasts long, reaction takes place with increased circulation, and the most marked symptoms of determination to the brain. During the winter months, the morbid affection of the

brain is not at all times so prominent a symptom, nor are the bowels so much constipated: there is often a more anxious look in the beginning, some pain upon pressing the abdomen, and the pulse is seldom so full, when the last symptom is considerable. The attack has also been accompanied by cynanche tonsillaris, but this soon ceases to be a prominent symptom. In the summer and autumnal months, an attack of cholera morbus, or diarrhœa, has preceded this fever.

If the patient has not complained till the second or third day of his illness, if the disease has been treated as a typhoid affection, or when the attack is violent, if the most prompt means have not been adopted, the patient will commonly have a different appearance. The head-ach is still severe, but accompanied by stupor, disinclination to answer questions, and indifference to surrounding objects: the eyes have a duller look than usual, and frequently the preceding inflammatory appearance, has in some measure given way, to a slight yellowness of the tunica adnata, which soon extends to the face and neck, and often, in twenty-four hours from this time, to the whole body. The tongue is now covered with a thick yellow coat, or is brown and dry in the middle, the edges having a red inflammatory appearance; the prostration of strength is con-

siderable; the anxiety and pain in the limbs great; the uneasiness in the epigastric region is urgent, and there is frequent vomiting of a bilious-like matter, and most harassing singultus: the pulse under these circumstances is commonly much smaller, varying from 100 to 120, and often is more frequent. There is at this time no very considerable increase of temperature, the features exhibiting rather a shrunk and anxious appearance, with occasional partial flushings. In the severe attacks, about the third day, there is often an appearance of a complete remission, but the evening puts an end to the delusion; an exacerbation takes place, with great increase of all the dangerous symptoms. Unhappily this deceitful period has often been mistaken for a real remission of the symptoms, and both tonics and stimulants have been given, with a view to prevent a recurrence of the paroxysm; but vain, indeed, are all such efforts, they serve but to increase the malady.

As the disease advances, the pain and uneasiness about the epigastric region, continue to increase. There is now almost constant vomiting; considerable pain upon pressure; great restlessness, with oppression at the præcordia. The abdomen is likewise painful, with frequently thin, black, foetid, and sometimes gelatinous-like stools. The suffusion, at

first, of a bright yellow, now assumes a darker hue; the skin is at times moist, or there are partial sweats, and commonly a disagreeable foetor is exhaled from the person or linen of the patient. Under all these distressing circumstances, he often retains his intellect, answering questions rationally; but there is almost always some degree of wandering, and inattention to surrounding objects. If the head has been materially affected, there is occasionally considerable delirium, which commonly terminates in a state of coma. The pulse becomes irregular, sometimes full, at others quick and small, and often intermitting. The uneasiness about the epigastric region is intolerable, and some patients have complained of a burning sensation, extending upwards to the throat. The vomiting is incessant, often of blood, succeeded, *in some cases*, by a matter resembling coffee grounds; blood exudes from the gums and fauces, with hæmorrhage from the nose, and often in considerable quantities from the anus. About this time subsultus tendinum comes on, with picking of the bed clothes, constant tossing in the bed, and suppression of urine, with an irksome pain across the pubes. In many cases complete ischuria renalis; in a few, the bladder has been found distended, and required the introduction of a catheter; in many, the stools are passed involuntarily. Swelling

and suppuration of the parotids, petechiæ and vibices, though not general symptoms, have in several cases occurred. The tongue is now covered by a black crust, the teeth are surrounded by sordes; the breathing becomes more laborious, with great action of the respiratory muscles. The anxiety is extreme; the pulse sinks so as to be sometimes scarcely perceptible, and intermits; cold extremities, clammy sweats terminate the scene, frequently on the third or fourth, but generally from the fifth to the eighth day; though sometimes death is protracted beyond that period.

These are the symptoms which mark the progress of this fever, under its most formidable mode of attack, or when it has been neglected, or improperly treated. In many instances it proceeds through its whole course, bearing strictly the form of a continued fever; in others, there is a deceitful remission about the third day. But in by far the greater number of cases, though there are evening exacerbations, there is but seldom any evident and clear remission in the morning. The most attentive observation by myself, and others on whom I could rely, has failed to detect the distinct remissions ascribed to this disease by Dr. Cleghorn.

The train of symptoms, which have been just enumerated, will not always be presented in the

same patient, nor is death itself uniformly preceded by such appearances as I have described; particularly when the disease terminates fatally before the third day, or before the first stage of the disease is past. In such cases the brain is the part more immediately affected, and death has sometimes taken place suddenly; the pulse remaining full, soft, and even somewhat strong, till nearly the last moments.*

I have before observed, that during the early part of summer, the brain is the organ most violently attacked; when the heat increases, and the periodical rains fall, the gastric symptoms become severe, but without diminution of the local affection of the head. As autumn advances, there is often an inflammatory affection of the intestines, frequently from improper treatment, terminating in dysentery. In the winter months, this disease is often accompanied by severe and evident inflammation of the lungs. In the summer and autumn, slighter affections of the lungs are occasionally observed, but the patient seldom complains of this, unless when asked.

The symptoms which evince a more favourable termination, are the head-ach less severe in the first stage; the prostration of strength less

* Case V. is an example of this.

remarkable; and the affection of the stomach more moderate; the pulse soft, and less frequent; and a gentle *uniform* moisture covering the whole body. The absence during the progress of the disease of the severe gastric symptoms, of the yellow suffusion, of ischuria, dyspnoea, singultus, and subsultus tendinum; the bowels moderately open, without pain on pressure.

There are few severe cases when the disease is protracted beyond the third day, and in which the gastric symptoms are urgent, that the yellow suffusion does not make its appearance in; and the earlier it is observed, and the deeper hue it assumes, so in proportion is commonly the danger of the patient; not only as to his present recovery, but also as to the ultimate consequence of the fever; as in almost every instance, it portends a protracted convalescence, and not unfrequently is followed by a diseased state of the liver, dropsical swellings, or irregular attacks of intermittent fever, probably depending on a morbid state of the brain, or other viscera. The foundation of phthisis pulmonalis is often laid by this disease, and the patient, though saved from the immediate, is destroyed by the remote effect of it.

During the prevalence of an epidemic of this kind, slighter cases will undoubtedly occur; in-

deed some so mild as to require little medical treatment, beyond abstinence, rest, and a few doses of purgative medicine; but the practitioner should always be on his guard, as the approaches to a more concentrated form are often insidious, and the symptoms sometimes become violent and unmanageable, when they are little expected to do so.

PROBABLE CAUSES.

To the influence of marsh miasma, aided by causes to be hereafter mentioned, has been assigned the appearance of this disease in most of the ships of the fleet, where it has occurred, and many circumstances induce me to believe, that it has a very considerable share in predisposing to an attack.

It is not my intention to enter into an examination of the opinions respecting the production of fevers by the contiguity of marshes, the fact is admitted by every one, that their influence is great.

There are no very extensive marshy grounds in the neighbourhood of the ports of Minorea*

* It is a circumstance not a little extraordinary, that so close an observer as Cleghorn, should have overlooked the existence of this marsh, in a situation so near the town, and in his day

and Malta, the two places, where, from the nature of my duty, my principal observations have been made ; but at the head of each harbour there are some of this description, which, during the summer and autumnal months, emit very offensive exhalations, and exert considerable influence on the health of the surrounding inhabitants. In the country of Minorca, there are still some undrained lands, and the people residing near them, are uniformly subject to the attacks of fever. The inhabitants of Mahon, who have country houses, leave them in the summer, and return to town ; stating as a reason for doing so, that the farmers are particularly liable to the attacks of tertian fever at that time. From enquiries I have made, and indeed from cases coming under my own observation, I have no reason to doubt the fact.

The harbour of Mahon is divided by an island, on which stands the Naval Hospital ; ships anchored during the summer or autumn above the

occupying a much larger space, which is now converted into the productive gardens of St. John. This important improvement was begun by Brigadier General Kane, to whom the inhabitants of Minorca are much indebted. Since the draining of the greater part of this marsh has been completed, the sea has been gradually receding from the head of the harbour, leaving (particularly during the prevalence of the easterly winds) a large portion uncovered ; from which, in the summer and autumn, the most offensive exhalations proceed.

Hospital Island, for any length of time, rarely escape, without a number of their men being attacked with fever; while the ships anchored below, are commonly entirely free from it. Independent of the crews being within the influence of the marsh, by lying above the Hospital Island, the common sewers of the town of Mahon, considerably elevated above the sea, pour their contents into the upper part of the harbour, and doubtless have an unsalutary effect on the atmosphere. In Mahon harbour, the flux and reflux is solely influenced by the winds, the westerly producing a rise, and the easterly a fall of water, according to the force with which they blow; and, in summer, when there is always much calm weather, the upper part of the harbour becomes perfectly stagnant, often continuing so for a week together. A recent instance will exhibit the foregoing statement very evidently. The *Curacoa* and *Aigle* frigates, returning from a cruise, in the beginning of October 1812, the former anchored above Hospital Island, opposite English Cove, the latter below, opposite George's Town; they remained in harbour refitting nearly three weeks proceeding together off Toulon; the *Curacoa* had thirty-two men attacked with the usual fever, the *Aigle* not a single man. The crew of the *Swiftsure*, lying nearly in the same

place, were attacked with a similar disease, as were also the ships' companies of the *Undaunted* and *Berwick*, which had refitted at the arsenal.

In Malta it has always been remarked, that ships fitting at the Dock Yard, situated at the upper part of one of the arms of the harbour, are more subject to attacks of fever, than those lying out at their anchors; and on moving a ship, where it was prevalent, into Beguy Bay, the disease has uniformly ceased.* At the upper part of Malta Harbour, there was, during the time of the order of St. John of Jerusalem, a very considerable marsh, and the inhabitants of a village (*Cazal Nuovo*) in its neighbourhood, were obliged, on account of the insalubrity of the situation, to abandon it; indeed, with the exception of some distilleries lately established there by British merchants, it is still deserted. During the benevolent government of Sir Alexander Ball, this marsh was nearly drained, and the inhabitants of Florian in great measure relieved from its unsalutary effects. The minuteness of the foregoing circumstances may, in a common point of view, appear superfluous; but as their direct influence on the health of the ships is un-

* The observation relative to the sewers, flux and reflux in the harbour of Mahon applies equally here.

doubted, and as the means of obviating them are in our own hands, this detail is important to our consideration.

It has uniformly been found, that intemperance in the use of spirits and wine, exposure to the sun, or night dews after a fatiguing day, are the most powerful exciting causes of this disease, and those cases which immediately followed intemperance, have been observed the most untractable.

The disease is commonly the most severe in the young and plethoric. The boats' crews have generally suffered much; and the crews of ships receiving prize money, and permitted to go on shore, seldom escape with impunity.

I have been unable to detect the agency of contagion in the production of this disease, nor from the reports of others, have I any reason to believe it; but it is not inconsistent to conjecture, in the latter stages of this fever, where proper attention may not have been paid to personal cleanliness, to the removal of the excretions, and to ventilation where the sick are crowded, that the surrounding atmosphere may be vitiated.

I have not seen an instance, however, where an attack of this fever could be directly traced to the action of contagion; and in the present highly improved state of the discipline of the

navy, it is not probable any cause should be found, which would either generate or prolong it. It will be seen in another part of this volume, that an attack of this fever occurred on board the Kent of 74 guns, while cruising off Toulon, nearly three months after leaving port, and I do not believe that there is a ship in the British navy, where more attention was paid to cleanliness and ventilation, and generally to the health and comforts of the men, than under the orders of Captain Rogers.

METHOD OF CURE.

In order to make myself better understood, as to the plan I would recommend for the cure of this disease, it will be necessary to divide it into four stages.

1st. From the beginning of the disease, till the commencement of gastric symptoms, or the appearance of the yellow suffusion, which commonly occupies a period of three days, though sometimes less.

2d. From the accession of the severe gastric symptoms and yellow suffusion* till the appear-

* The yellow suffusion is more an incidental than an essential symptom in the features of this disease. In many severe cases it does not appear till at the moment of, or after death.

ance of nervous symptoms, the duration of which is various.

3d. From the accession of nervous symptoms, which is marked by the increased uneasiness about the epigastic region, ischuria, singultus, or vomiting of a matter resembling coffee-grounds, &c. till the termination of the disease, in death or convalescence.

4th. From the commencement of convalescence till the final recovery of the patient.

1st. In the first stage of the disease, the prostration of strength, the watery eye, the oppressed pulse, the anxious look of the patient, and disposition to syncope on abstracting a few ounces of blood from the arm, are but too well calculated to deceive an inexperienced or inattentive observer: but let him not be led astray by such delusive appearances; he has at this period a disease purely inflammatory to contend with; the fate of his patient is in his hands. At this time it is a disease simple in its nature, and easily to be managed; but if allowed to run on to disorganization uncontrouled, or if by improper treatment, the inflammation and congestions be increased, it soon arrives at that stage, when the utmost powers of medicine will be exerted too often in vain.

The first step is the removal of the local affec-

tion of the brain, on which depends all subsequent success, and being removed, generally prevents the dangerous symptoms of the after stages. For this purpose, blood-letting, both general and local, should be had recourse to, and repeated according to the urgency of the symptoms; the benefit derived will be greatly increased, by the use of purgatives and free ventilation; no apprehension need be entertained of the patients catching cold. It will often happen, after a few ounces of blood have flowed, that syncope will be induced: this must not prevent the repetition of the bleeding, while the symptoms require it. Syncope will rarely occur when the same quantity is taken from the temporal artery. In the course of an hour, the bleeding may generally be repeated, and thirty or forty ounces taken away, without producing it. In bleeding, the patient should be placed in a horizontal posture. I have often seen a bleeding of thirty ounces from the temporal artery, aided by a brisk purgative, put an end to the disease.*

* In hac febre, sanguinis determinatio capiti compluries, apparet et cerebri compressione, venæsectione prætermittenda, forsitan est causa virium prostrationis, comatis et delirii festinatis; igitur missione e brachio arteriotomia temporalis præferri debet. Utut res se habet, certè ita multum proficit sanguinis missio, capitis dolorem, dicto citius levando, ut æger ægerrimè orificium claudî sinat. (Grant. Tractatus de febre Flava, published in Jamaica in 1805, page 17.)

In the mean time, though a sufficient quantity of blood may not be obtained, by reason of the syncope above-mentioned, a brisk dose of pulv: jalap: ē submur: hydrarg: should be given, the speedy and free evacuation of the bowels, being an object of the utmost importance. It is scarcely necessary to caution the practitioner, that both blood-letting and purgatives should be ordered, with reference to the age and habit of the patient. It will frequently happen, (as I have before observed,) if the patient complain sufficiently early, the loss of thirty ounces of blood, more particularly from the temporal artery, will produce a complete remission, especially if the bowels be freely evacuated; but the intestines are commonly in a state so torpid, that it frequently requires the repeated exhibition of purgatives, aided by clysters, to effect this purpose. The head-ach, if not entirely removed, is greatly ameliorated by the abstraction of blood from the temporal artery; in many instances so immediately, that the patient has declared, he felt the pain escaping with the blood.

If before this evacuation, the pulse should have been oppressed, it will rise under the lancet;* and patients, who have been led or carried into the hospital or sick-birth, (so great has been the apparent debility), have, after the loss of thirty

* An example of this is afforded by Case I.

ounces of blood, risen and walked about, expressing their surprize at their former condition. The relief, thus obtained, is not in all cases permanent; *the patient must be carefully observed*; and on a return of head-ach, increased vascular action, heat, or other symptoms of pyrexia, the lancet must again be resorted to, as well as the use of purgatives. The great object is the removal of the local affection of the brain, or other organ, and the production of a complete remission of the febrile symptoms, in the least possible time, by which the dangerous symptoms of the latter stages of the disease are prevented or greatly mitigated, and a perfect and rapid recovery insured. In one instance, I ordered blood to be taken from the temporal artery, to the amount of ninety ounces, in the course of six hours. I am confident nothing but the boldness of the practice saved the patient; (see Case III.)* He was a convalescent on the third day after he came under my care, and recovered his strength very rapidly; this, perhaps, may be called an extreme case, but the principle is applicable to all. The local affection and febrile symptoms must be immediately removed, and it is absolutely necessary to perse-

* It was on the same day this patient was received, that I dissected the body of Tonge, (Case V.), which affords such strong proof of high vascular action, as decided me in the treatment of this man's case.

vere till this be accomplished. Should the patient be merely ordered to be bled, without attending to the effect, probably we have done little good, and in all likelihood much harm. Such treatment has come within my own observation, and I could not wonder at the event; it is a practice without principle, equally injurious to the case of the patient, and the credit of the practitioner.* Notwithstanding all our efforts, the febrile symptoms will, at times, continue, though much diminished in strength: in the evening, after repeating the bleeding, if necessary, benefit will be derived from giving a pill, composed of submur: hydrarg: pulv: antimon: āā gr: ij, followed by a dose of julep: ammon: acetat: and allowing the patient to use any cool refreshing drink he may fancy. A strict antiphlogistic regimen must be pursued, and as

* “ At in tante timiditate, et parca detractioe qui fieri potest, ut quis recte possit judicare, quantam ea in pestilenti morbo prodesse valeat, aut obesse? Non enim morbus, pro cujus curatione requirebatur detractio librarum quatuor sanguinis, in quo una tantum detrahitur, si hominem interficiat, ideo non interficit, quia sanguis est missus, sed quia non justo modo missus est, nec forte etiam opportune. Verum nebulones nequissimi, et ignavissimi, in id semper culpam convertere satagunt, non quod nocuit, sed quod per nefas à cunctis vituperari exoptant. Aut si id nequitia non faciant, ignorantia tamen pravae dispositionis efficiunt: utraque certe perniciosa: sed illa magis.” (Sydenham.)

few bed-clothes as possible allowed on the patient's bed. I should consider this observation, concerning the bed-clothes, and a preceding one, respecting ventilation and catching cold, quite superfluous; but that I have seen unfortunate objects, labouring under fever, in the months of July and August, with the thermometer at 84, shut up from the cool refreshing breeze, with their beds heaped with blankets; and have been told, on enquiry, that it was to prevent them catching cold!! Crude, indeed, must be that man's ideas, and little can he be acquainted with the principles of that profession, he has undertaken to practise.

It is impossible to lay down rules for the treatment of every case that may occur, but these are the principles on which the cure should be conducted: their application is fully exemplified in the subjoined Cases.

If the disease remain on the following day; if the pulse be still full, hard, or strong, with increased velocity; if the flushing and tumefaction of the face, with suffused eye be still present; or if the head-ach continue, with increased heat, recourse must again be had to the lancet and purgatives, and blood evacuated, according to the urgency of the symptoms. In many instances, where the patient has not come immediately under my care when taken ill, or where

the disease has been obstinate, and the symptoms violent, blood has been often taken to the amount of 130 or 140 ounces, and even as far as 200, with the most marked advantage; and so far has this been from inducing any great debility, or a protracted convalescence, that the restoration of the patient to perfect health and strength, has been most rapid, and relapse has seldom taken place: but such large evacuations must be confined to the early stage of the disease. It is of the utmost importance, that the state of the bowels be attended to minutely; jalap and calomel, during the whole of the first stages, unless there be any material affection of the intestines, is the best purgative to use, and sits more easily on the stomach; but where there are symptoms of enteritis, I have thought ol: recini: or a solution of sulphate of magnesia, more appropriate medicines.

It may often happen, that though the patient be received under care, during the first stage, much mischief has already been done by the use of emetics or stimulants. If the case be severe, an emetic will do much harm, and though by the subsequent treatment, the symptoms may be greatly alleviated, a remission in the early stage, will be very doubtful; and the extreme irritability of stomach, which generally characterises the more advanced stages of the disease, will be much in-

creased, and with it the whole of the dangerous symptoms. He who expects to remove nausea by the exhibition of emetics in this disease, will, when too late, find himself miserably deceived. The effects resulting from stimulants, given at this period, cannot be equivocal. After due evacuation, when a degree of head-ach remains, with increased vascular action and heat, the use of the cold or tepid affusion, according as circumstances allow or require them, will be attended with the best effects. But the young practitioner must not confide in cold or tepid affusion for the cure of this disease; they are most useful auxiliaries, but never of themselves to be depended on.

2d. In the second stage of the disease, much is still in the practitioner's power for the safety of the patient; but even this will greatly depend upon his preceding treatment; whether the disease may have been treated as an inflammatory or as a typhoid affection: in the first instance, the symptoms are commonly moderate; in the second, they are as generally severe. When the head-ach is present, with flushing of the face, and suffusion of the eyes, and the pulse firm, blood should be taken; and at this time particularly from the temporal artery, as a smaller quantity from thence, will relieve the morbid affection of the brain, and unload the distended

vessels; but the bleeding should, for the most part, be small; and, during the time the blood is flowing, the pulse and general appearance of the patient, should be strictly attended to. If the pulse rise, we may commonly take from ten to sixteen ounces at a bleeding, but should rarely exceed that quantity. It is necessary to say, that the bleeding may be repeated with advantage, if the symptoms require, and the state of the patient allow it. If, during the bleeding, the pulse should sink, it will be prudent immediately to desist. A blister applied to the head at this time, will be attended with manifest advantage. Care should be taken to procure daily evacuations; but the more powerful cathartics must now be laid aside, as their operation will be found too rough for the advanced periods of the disease; small doses of castor oil, or purging enemata, will be found of much use. The irritability of stomach, with uneasiness in the epigastric region, which are often at this period very distressing, will be greatly relieved by the application of leeches,* and the use of the saline draught, in a state of effervescence, to which may be added *small* doses of tinct: opii: regulated by the pulse: the application of a large blister to the region of the stomach, has also been attended with great suc-

* See Case X.

cess. In some instances, as in that of Partington, (Case I.), the saline draughts avail little; and, when every thing else is rejected, a little warm wine, with sugar and spice, will often be retained. About this time, a degree of stupor will sometimes supervene, and I have often removed it by the application of a blister to the nape of the neck or forehead, or a few leeches to the temples. The patient is also often, at this time, distressed by pains in his legs, and great uneasiness across the pubis; these symptoms will be much relieved by the application of warm fomentations. Particular enquiry and examination should be made, in order to ascertain whether there be any affection of the abdominal viscera, when bleeding, blisters, and the warm bath should be resorted to, according to the urgency of the symptoms, and state of the patient. I wish particularly to impress the utility of the warm bath; under these circumstances, it will often save the patient, when, from his other symptoms, bleeding would produce fatal consequences. It is obvious, that bleeding must not be practised, where the patient is much exhausted; but the warm bath, blisters, and large frequently repeated emollient clysters, will be of the utmost benefit. When the morbid heat is considerable, with general irritability, and the

patient exhausted from the severity of the gastric symptoms, or a protracted disease, great advantage will be derived from the use of the warm or tepid bath, or sponging the body.

3d. We are now arrived at the most dangerous and distressing stage of the disease, where, unhappily, the powers of medicine are of least avail; the pulse begins to sink or intermit, and the nervous symptoms become urgent, constituting the third stage. Little more can now be done, than to look on, and endeavour to obviate symptoms as they occur. Singultus is a dangerous, and commonly a most harassing symptom at this time; it will often be relieved by camphorated julep, to which may be added, opium and æther. Musk is also sometimes of service, but my experience does not warrant me to speak decidedly. If the pulse sink, the stimuli must be increased; and, under these circumstances, I have found the carbonate of ammonia, with aromatic confection, of singular benefit: * but while we endeavour to restore the balance of the circulation, care must be taken not to induce a state of secondary excitement, and as the pulse rises, the stimuli

* I have often, in the fevers of England, observed great benefit from the use of this medicine, at this stage of the disease, particularly in protracted cases of the Corunna fever.

should be decreased. Constant attention must still be paid, to the daily evacuation of the bowels; but at a period, when the excitability of the system is nearly destroyed, powerful cathartics will be attended with the most deleterious consequences: clysters are particularly serviceable at this time. As the disease advances, the secretions are, at times, voided involuntarily; in a few, I have observed a retention of urine, and in these last cases, the catheter should be used; but as a general symptom, there is far oftener a deficiency in the secretion of that fluid. Frequently in this state, the stomach rejects every thing; we may now safely indulge the patient *moderately*, with any thing to which his fancy leads him. Bottled porter, wine, and brandy and water, have been found beneficial; but no remedy can be relied on with any degree of certainty: whatever calms the irritability of the stomach, and moderately supports the excitability of the system, is useful. A few spoonfuls of arrow-root or sago, with wine and spice, given occasionally, will often be retained by the patient, and greatly, at this period, assist the cure.

The termination of this disease in intermittent fever, has seldom occurred in my own practice; but I have frequently seen it in that of others, where early evacuation had been neglected. It appeared to be in general occasioned by some

morbid affection of the brain, liver, or other viscera, and the cure consequently depending upon restoring the healthy state of their functions. For this purpose small doses of calomel or pill: hydrarg: will be attended with much benefit, and their use should be continued until some sensible but slight effect be produced on the salivary system; when the disease often ceases of itself, or is readily removed by the use of Peruvian bark. Where the yellow suffusion has been great, a protracted convalescence is almost the certain consequence, attended often with irregular affections of the bowels, and dyspeptic symptoms; in these cases, small doses of the pill: hydrarg: with an occasional gentle purge of ol: recini: or rhubarb, will be attended with the best effects. Several patients under similar circumstances have complained of vertigo,* and tinnitus aurium, and with them the same plan of treatment has been eminently successful.

4th. When a complete remission is procured in the early stage of the disease, and is followed by convalescence, the desire for food soon returns; but at this, as well as every other period of convalescence, we should be extremely cautious how we indulge the patient, as repletion in the early stage will almost infallibly occasion

* See Case IX.

a relapse, and, at any period, will retard the cure: the return of the patient to an increase of diet should be gradual, and, except in cases where he is exhausted by a long protracted disease, wine, for the first few days of convalescence, is quite unnecessary, and often injurious. That which is called in the naval hospitals half diet, will be found ample for his restoration. I have never observed a full diet accelerate the recovery of a patient from fever, but I have often seen it retard it. During the whole progress to recovery attention should be paid to the state of the bowels, and at least one evacuation procured daily. The only medicines I have found necessary, as tonics, are the infusion of quassia joined with some aromatic, and occasionally a dose of the diluted sulphuric acid, two or three times a day. On a few occasions, I have ordered an infusion of Peruvian bark; but I prefer the quassia, as it in general sits easier on the stomach, and is commonly less nauseous to patients recovering from fever.

It now only remains for me to notice some remedies which have hitherto borne an important part in the cure of this fever, and are still employed by many.

The first to which I will advert are emetics, and of these medicines I can assert with confi-

dence, that when given in doses, so as to produce full vomiting, they have been attended with the most unfavourable effects; head-ach, vomiting, and generally local affections, have been much increased by their use; they seldom or ever succeed in removing nausea, and the second stage of the disease, with greatly increased gastric symptoms (if I may be allowed the expression) has been prematurely brought on by them.

Sudorifics have never appeared to me to be attended with the smallest advantage, especially when employed in the early stage. It is well known to every practitioner, that they often fail in inducing perspiration, and under such circumstances, their general action cannot but be highly unfavourable. At the commencement of the disease, the patient is often covered with a profuse perspiration, from which he derives no relief.

Antimonial powder, given in two grain doses, combined with the same quantity of calomel, generally assists in keeping the bowels open; but this should only be administered in the early stage. Whenever irritability of stomach may be present, antimony under any form, is totally inadmissible; and, when taken under such circumstances, rarely fails to aggravate the sufferings, and increase the danger of the patient.

Peruvian bark, when given while symptoms

of pyrexia remained, has been attended with very mischievous effects. Under its use, mortality has been great, relapse frequent, and as in the cases of the *Temeraire* and *Invincible*,* dysentery attacked nearly all the patients, who had had fever, in a severe form; nor was there an instance, as far as I could learn, that when given during a supposed remission of the symptoms, it prevented a return of the paroxysm. Too often it has been given with wine at the commencement of this disease, when the tongue has soon put on a brown, dry, and furred appearance; the anxiety, delirium, and irritability of stomach have been much increased; the whole train of nervous symptoms soon became formidable, resisting every means of alleviation, till death has put a period to the sufferings of the patient. When the disease has put on an intermittent form, I have experienced the usual effects resulting from its use.

I have heard of the utility attending the exhibition of mercury in this disease; but I can with truth affirm, that employed in any other shape than as a purgative, I have never seen it in the early stage attended with the smallest advantage.†

* The relation of this will be found in the second part of the volume.

† It is but justice that I should add, that some of the surgeons thought benefit was derived from the use of calomel in the first stage, carried so far as to excite ptyalism.

In long protracted cases, where a morbid affection of the brain, or other viscera, has been the consequence of allowing the first stage of the disease to proceed uncontrouled; and particularly when there was reason to suppose that effusion had taken place within the cranium; I have observed the most marked good effects from its use in small doses. In some cases of irritability of stomach, where calomel has been given, joined with opium, I have seen relief ensue; but I have also observed the same effect from the opium, without the mercury.*

Pediluvium has in general been recommended in fevers where considerable affection of the head prevails, with a view of producing a revulsion; and, for this purpose, I have myself employed it: but, for a number of years past, I have laid aside its use at this period, being satisfied from observation, that it generally, in the early stage of fever, increases the symptoms it is intended to relieve, my own experience fully confirming the excellent observation of

* As a prophylactic, mercury has not been found beneficial in the Mediterranean. Mr. Shand mentions several of the Ajax ship's company having been attacked with the disease in Palermo Bay, who were fully under its influence at the time. John Hunter remarked the same of the yellow fever in Jamaica (page 287), and Dr. Grant, in a little tract he published in 1805 on the yellow fever, states a similar fact (page 40).

Dr. Clutterbuck in his valuable work on fever. In the latter stages of the disease, when the period of excitement is past, I have found it soothing to the patient, and successful in removing the pains in the limbs, often at that time so troublesome. In page 390 of Dr. Clutterbuck's Inquiry, &c. he observes:—" The effect of the pedeluvium, or of warm fomentations to the extremities, is not merely that of increasing the circulation in those parts, but operates forcibly as a stimulus to the brain, increases its energy, and in a short time the vascular action throughout the system, as is evident by the increase of the heat of the body, the fulness of the pulse, and the production of sweat, which soon follow. It produces, in fact, as might be expected, consequences the reverse of those which are induced by cold."

" In this point of view, the practice of applying warm fomentations and the like to the extremities in fever, seems to be equivocal, and only adapted to that state of things where a stimulus to the brain is clearly indicated. I have repeatedly seen reason to believe, when warm fomentations have been employed early in fever, for the purpose of relieving a more than ordinary affection of the head (such as violent delirium), that they

“ have tended rather to aggravate than mitigate a symptom, which owed its origin to
“ an already too active state of vascular action
“ in the brain.”

GENERAL APPEARANCES ON DISSECTION.

EXTERNAL.

The bodies of such as died during the inflammatory stage of the disease, were in general more slightly tinged with yellow. The yellow suffusion of those who died at a more advanced period, was found of a deeper hue. A dark livid appearance on the shoulders, and extending upwards to the occiput, was common to all. In several, livid blotches on different parts of the body; in a few, large black lines on the abdomen; the scrotum frequently quite livid. Black or reddish blotches on such parts as had suffered compression were common. In some petechiæ; abdomen tense; in a few, swelling and suppuration of the parotids.

BRAIN.

Vessels generally distended; in many instances completely gorged with blood. The

membranes highly inflamed, with often a blood-shot appearance. Depositions of coagulable lymph in different parts, particularly in the circumvolutions of the brain. Adhesions of the hemispheres were common. The ventricles often distended with fluid, sometimes limpid, at others yellow. Membranes of the brain frequently yellow. Substance of the brain of a firm consistence.

THORAX.

The lungs often in a high state of inflammation ; at other times, effusion had taken place, and depositions of coagulable lymph on different parts. Adhesions to the pleura costalis were frequent. Pericardium inflamed, and preternatural collection of fluid within that membrane. Diaphragm highly inflamed, with occasionally depositions of coagulable lymph on its surface. Effusion to the extent of several ounces in the cavity of the thorax.

ABDOMEN.

Liver generally enlarged, but not so commonly, shewing great external marks of inflammation ; frequently livid towards the lower edge of its concave side.

Gall bladder moderately full of inspissated bile.

Stomach generally more or less inflamed and distended with air, containing a dark coloured matter, adhering at times to its villous coat.

Intestines bearing marks of inflammation through their whole course, distended with air, and containing a matter similar to that found in the stomach; frequent intussusceptio.

Urinary bladder seldom distended, at times shewing slight marks of inflammation.

CASES OF FEVER,

TREATED UNDER MY CARE,

IN THE NAVAL HOSPITAL, MAHON, 1812.

CASE I.

John Partington, a seaman of his majesty's ship, Swiftsure, came under my care in the hospital, 20th October.

Surgeon of the Swiftsure's Case.

John Partington complained, on the 17th, of pain in the head and breast, vomiting, and great prostration of strength; pulse quick and small, heat moderate, tongue pretty clean. Has taken an emetic and a purgative, and grs: ij calomel every two hours, with some relief.

State of the Patient when received under my care on the 20th.

John Partington, seaman, ætat 34, complains of severe head-ach, soreness and stiffness

of the eyes, which are heavy, have an appearance of anxiety, and are much suffused; the face is a little flushed, but of a dull hue, which extends down the sternum. There is slight difficulty of inspiration, but no pain; he has nausea and severe vomiting, with much apparent languor: pulse 118, rather small; tongue foul, thirst great, skin dry and generally slightly yellow; temperature 98, body open.

The temporal artery was opened, and thirty ounces of blood taken; a purgative, composed of sub: murias: hydrarg: and jalap: pulv: was then given, and he was ordered to take ꝑ: jiss: julep: ammon: acetat: secundæ q: q: hora.

At 6 P. M. is much the same, except that the face is more flushed; nausea and vomiting continue; pulse now 120, and more full and hard; skin dry and parched, temperature 100.

Detrahantur statim ꝑ: xvi sanguinis ex arteria temporali.

Vespere. Appearance of the eyes not amended, has much anxiety and restlessness; face is less flushed, and head-ach greatly diminished; his eyes do not now pain him so much. Pulse 120, but smaller.

A blister was applied to the region of the stomach; and as he had had no stool, a purging enema was ordered, and the saline julep, in a state of effervescence, was directed pro re nata.

21st. Has had constant vomiting during the

whole night, appears languid, debilitated, and depressed; his countenance has a very anxious appearance, and he complains of slight pain across the forehead. Pulse 116, small and confined, thirst and temperature much the same; had two copious evacuations from the enema; complains of feeling a burning sensation in the stomach, and of something, he calls a stoppage, which, from his description of his sensations, appears to be about the cardia.

Habeat mistura effervescentis ℥ji cum tinct: opii: min: x pro re nata.

Vespere. Appearance of the countenance and eyes worse; says the burning sensation and stoppage are less; has been constantly vomiting and retching the whole day, and now brings up a matter resembling coffee grounds---draught has not at all relieved him; pulse 110, irregular, and at times scarcely perceptible, skin dry, temperature does not exceed 97.

R Carbon: ammon: grs: viii. confect: aromat: q. s. ft. bolusumat: secundæ quaque hora suberbibend: haust: sequent: Julep camphor ℥ij.

Habeat vin: rub: tepid: ℥ij ē pulv: nuch: moschat: sæpe.

22nd. Has had a very restless night, but slept a little in the morning; his countenance is more languid and depressed; was much troubled with singultus last night, but which, after

taking a little of the mulled wine with spice, as well as the vomiting left him ; burning sensation about the stomach still remains, but what he described as a stoppage, is gone. This morning his pulse is 108, fuller, and now regular ; skin moist, and temperature 99. Thirst and tongue much the same ; he is sometimes incoherent, but answers any question put to him rationally ; the matter he has vomited has the same appearance as before.

Contr: medicamenta ut ā: et vinum.

Abradantur capilli et applicetur emplast:
lyttæ capiti.

P.M. Countenance much amended, but has still a degree of listlessness and depression ; eyes less suffused and more expressive ; appeared quite collected in the early part of the day, but at one time in the afternoon was very absent. He has during the day vomited both his wine and medicine, but now retains them, and is at present free from singultus, which has been very distressing. Still continues to vomit as before a matter resembling coffee grounds. Pulse 100, and full. Contr: ut antea.

23d. General appearance improved ; vomiting, nausea, and singultus still at times harassing, and is often brought on by taking a little of any common drink ; is at present however free from these symptoms, but still retains the sensation

of burning in his stomach; has had one large and highly foetid stool from an enema, resembling in colour that which he vomits. Pulse 86, rather full and hard; skin dry, temperature 98. Thirst and tongue much the same, blister on the head rose well, and was now dressed.

Habeat julep: camphor: ʒ ij tertia quaque hora. Barley water, or tea, for common drink.

Vespere. Continues better. Uneasy sensations in the stomach are again more apparent, and he now also complains of some pain about the superior part of the trachea; he has at times had a little vomiting, and singultus has been troublesome. Pulse 92, rather full, skin dry, temperature 99, tongue a little brown and furred, thirst the same, several scanty stools during the afternoon.

Contr: julep: camphor: et applicetur emplast: lyttæ pectori.

24th. Nearly as last night; has had frequent and harassing singultus, which is immediately removed on taking a little mulled wine with spice. Has slept a little, no stool, but an inclination in the night for it.

Contr. julep: camphor et vin: tepid: ut \bar{a} .

Vespere. Singultus has been frequent and strong during the day, and he has still a little disposition to use the bed-pan.

Injiciatur enema purgans statim. Contr: medicamenta et vinum ut \bar{a} .

25th. To-day the tunica adnata and skin have put on a more yellow appearance ; says he has slept none, and the singultus has seldom left him, but at present it is weaker ; uneasy sensations about the stomach still remain. Pulse 104, fuller and harder ; has had two stools from last night's injection.

Contr: julep: camphor: et vinum ut ā.

Habeat ol: recini: ʒ vi in aq: menth: pip: ʒ ij statim.

Vespere. Had several large motions before his aperient came from the dispensary, which was therefore not given. Has now little singultus, and the vomiting has quite left him. Countenance and other symptoms greatly amended. Contr: omnia ut ā.

26th. Countenance to-day pretty cheerful, and says he feels much better, but did not sleep well in the night ; has still a little singultus, but it is much milder. Heat about natural, tongue clean, and says he has a little inclination for food.

Habeat julep: salinæ ʒ ij tertiis horis.

7 P.M. Is at present asleep, and has slept a good deal during the day. Singultus left him shortly after the morning's visit, and has not again returned. Has had several copious evacuations by stool ; pulse 98, very full, but soft ; temperature 100 ; he is covered with a fine warm perspiration. Burning sensation about the re-

gion of the stomach still remains, and he says extends upwards towards the throat.

Repetatur julep: salinæ secundæ q: q: hora
omit the wine.

27th. General appearance continues to amend, but there is still a degree of listlessness, and his cheeks are occasionally flushed; slept well the first part of the night, but towards morning the burning sensation in his throat and stomach prevented him. No return of singultus; pulse 94, and full, with a small degree of hardness; tongue getting clean, and appetite improving; no stool.

Habeat ol: recini ʒj aq: menth: pip: statim.

Contr: julep: salinæ ut antea. Took a few spoonfuls of sago.

28th. Greatly improved, several stools from his medicine yesterday, burning sensation nearly gone. Contr: julep: salinæ. Let him have a little sago for dinner.

29th. Continues to improve rapidly; complains of a sensation of soreness in the region of the stomach, but feels nothing of the burning which has been so troublesome to him; pulse 86, and soft, temperature and skin natural; slept well, and has had several stools; appetite good. To have an egg for dinner.

30th. Perfectly convalescent; from this day he took infusion of quassia, was put on half diet, attention paid to the secretions, and he returned to his duty perfectly well on the 27th of Nov.

CASE II.

Stephen Stewart, a seaman belonging to the British Tar transport, was taken ill on the morning of the 24th Sept. with shivering, succeeded by severe head-ach, chiefly referred to the forehead. He had some degree of nausea, with pains in his back, calves of his legs, prostration of strength, loss of appetite, and thirst. When I first saw him, it was near 8 P. M. when, together with the foregoing symptoms, his tongue was white and moist on the edges, and brown, dry and furred in the middle; his eyes were inflamed and watery, head-ach very severe, face flushed; skin hot, but covered with perspiration, and he had great impatience of light: his pulse beat 118, full and strong, and there was much increased action in the carotid and temporal arteries. I immediately directed thirty ounces of blood to be taken from the temporal artery, and a brisk cathartic of pulv: jalap: \bar{c} submuriat: hydrarg: to be given. The bleeding gave instant relief.

25th. This morning he is much better, his cathartic has operated freely, but there is still considerable excitement present; the pulse, however, is neither so quick or full as last night, and the temperature reduced.

Detrahantur statim ℥ xxx sanguinis ex arteria temporalis: Habeat julep: salinæ ℥ ij secundis horis.

1 P. M. The whole of the blood could not be procured from the artery, about ten ounces only could be got; a vein was opened in the arm, and the remainder drawn from thence: he now feels much easier, pulse 95 and full.

7 P. M. Generally better, but pulse still full and strong, and beats nearly 100.

Detrahantur venâ brachiali sanguinis ℥ xx.

26th. Nearly convalescent; pulse scarcely 80, and skin cool, tongue moist and cleaner; says he has now no head-ach or pain in any part, and that he is quite well, with the exception of a little giddiness of head, on getting out of bed: only one motion in the night.

Habeat calomel grs. vi pulv: jalap: grs. x statim.

P. M. Pulse 84 and still full. No stool during the day.

Habeat ol: recini ℥ j in aq: menth: pip ℥ ij.

27th. Has passed a good night, had several copious evacuations from his cathartic. Pulse still full and strong, and approaching to 90. Face at times a little flushed, tongue white and moist, skin generally cool, and says he has no pain any where of moment.

Repetatur V: S: ad ℥ xii. Contr: julep: salinæ ut ā.

P. M. Pulse less full, and about the same quickness; says he has no complaint whatever, but giddiness of his head, and a little uneasiness about the fore part of it.

Applicetur emplastrum lyttæ fronti.

28th. No complaint, but the pain of his blister. Pulse 80, and not full.

Contr: julep: salina ut ā.

P. M. Pulse now reduced to 70. Skin cool, tongue clean, has no complaint whatever.

29th, 30th. Perfectly a convalescent.

Habeat infus: quassia ζ ij tertia quaque hora.
Half diet.

CASE III.

John Parry, (private marine), of the Swiftsure, received into the hospital Oct. 24th.

Surgeon of the Swiftsure's Case.

J. Parry was attacked on the 23d with high pyrexia, pulse quick and strong, pain in the head and eyes, rigors and flushings; tongue dry, no nausea, purging or stupor; sixteen ounces of blood have been taken, which induced syncope.

Habeat sulphat: magnesia ζ i.

State when received into the Hospital at 3 P. M.

J. Parry, ætat 33, of a full habit, eyes suffused, and countenance exceedingly anxious;

E



face excessively flushed, swollen, and of a glossy appearance; a little flushing at the top of the sternum, but not extending to the neck. Complaints of violent head-ach, which is at times intolerable, and most severe in the course of the longitudinal sinus, and over the orbits; describes his feelings as if the cranium were too full, or too small for its contents. Pulse 110, and strong, temperature 102. Skin dry, tongue white, belly open. Says he was taken ill yesterday about four o'clock, with great heat of skin and thirst, followed by severe head-ach; but does not now recollect any cold chill preceding. Knows no cause for his illness.

Detrahantur statim ζ xxx sauginis ex arteria temporali, et habeat pulv: jalap: grs: xii. calomel grs: vi. postea.

6 P. M. Not at all relieved.

Detrahantur ζ xxx sanguinis ut \bar{a} .

Half-past 8 P. M. All his complaints remain, except that his eyes are not so painful; pulse, heat, thirst, flushing, and swollen appearance of the face nearly the same.

Detrahantur ζ xxx sanguinis ex arteria temporali ut \bar{a} .

Habeat pulv: antimon: submuriat: hydrarg: $\bar{a}\bar{a}$ grs: ij.

25th. Passed a tolerable night, but slept little; countenance much less languid and anxious, eyes

lively, and not at all expressive of distress. Flushing of the face, as well as heat, swelling, and glossy appearance, entirely gone; says he is quite free from pain, and has been so ever since the last bleeding: several free evacuations; pulse 70, soft and regular, tongue clean, no thirst, appetite bad.

Capiat ℥ij julep: aq: ammon: acetat: secundis horis.

Vespere. A little increase of temperature and quickness of pulse, with flushings, and stiffness of the eyes: twelve ounces of blood instantly relieved him, taken from the temporal artery.

26th. Passed a comfortable night, countenance much amended; flushing and glossy appearance of the face perfectly gone, as well as suffusion of the eyes; says he has been free from complaint all night. Pulse calm, temperature 98: tongue rather white, thirst abated, appetite bad: has had two copious evacuations.

Habeat julep: aq: ammon: acetat: ut ā.

P. M. Greatly amended; is now quite free from fever: functions natural.

27th. Convalescent. He was kept on reduced diet, without wine, for a few days; after which he took infusion of quassia, and was soon discharged.

CASE IV.

Jas. Tucker, purser's steward of the Swiftsure, received into the hospital Oct. 24th.

Surgeon of the Swiftsure's Case.

Oct. 22. Moderate pyrexia, pain in the head, back, and limbs; purging and griping; pulse frequent, tongue clean.

Habeat calomel: grs: vi. pulv: rhæi: 3 i.

P. M. Pyrexia very high, pulse strong and rapid; heat great, tongue dry; pain in the head and loins; no griping, but is slightly purged.

V: S: ad 3 xxxv habeat calomel: grs: vi.

23d. Pyrexia abated, pulse frequent and weak, and he perspires: tongue dry and dark; pain chiefly in the breast and loins; vomits frequently, but is not purged.

Habeat cal: grs: iv. pulv: jalap: 3 j.

P. M. Not purged.

Repetatur calomel: \bar{c} jalap: 3 ss.

24th. Better; pain only in the back; gently purged, slight retching occasionally; tongue cleaner, pulse quick and weak.

Habeat calomel: grs: iv pulv: jalap: 3 ss.

State when received under my Care in the Hospital, 24th Oct.

Joseph Tucker, purser's steward, ætat 32, of a robust make, and extremely corpulent habit;

countenance marked with great anxiety and langour; eyes watery, roll quick, and have a heavy dull appearance; face considerably flushed, but not of the active kind; rather swollen, with a shining appearance. Complains of a severe, acute and constant pain across the inferior part of the breast, and about the epigastric region, which so much affects his breathing and speech, that he performs neither but with great difficulty and suffering; great prostration of strength; breathing extremely short, catching, laborious, and performed with considerable motion in the respiratory muscles. Pulse about 140, and very small. Skin dry; temperature 99; tongue white, thirst great, belly loose.

Habeat julep: aq: ammon: acetat: ʒij secundis horis: applicentur region: epigastricam hirudines no: xii.

P. M. Says the pain in the breast is much relieved, since the application of the leeches, but appears otherwise much the same.

25th. Has slept about three hours this morning; appearance of the countenance and eyes rather better than last night, but there is still great anxiety, and he is very restless: eyes less watery, flushing of the face nearly gone, as is also the swelling. Says to day he has no pain whatever; catching and laboriousness of breathing greatly diminished. Pulse 118, and small;

skin moist, temperature 99: tongue foul, thirst less. Three motions in the night.

Contr: julep: aq: ammon: acetat: ut ā.

P. M. Symptoms continue better; several evacuations; pulse 104, and fuller.

26th. The eyes this morning begin to assume a yellow hue, but suffusion is quite gone: passed a good night, and the general appearance of the countenance is pretty cheerful; is somewhat restless, but to-day complains chiefly of weakness. Pulse 100, rather full, but soft; tongue cleaner, thirst diminished, skin dry; temperature 100; several stools, no appetite.

Contr: julep: aq: ammon: acetat: ut ā.

P. M. Countenance much more anxious and listless than in the morning, moans a great deal; his breathing is again hurried, and performed with great action of the respiratory muscles; and he is extremely restless and impatient: says he feels considerable pain in his breast on a full inspiration; pulse 104, pretty full, but soft. Skin rather moist, temperature 101; tongue in the middle covered with a brown fur: thirst and appetite much the same; three or four stools.

Detrahantur statim ex brachio sang: ʒ x.

27th. Says he slept four or five hours in the night, and that he has rested more comfortably than since he has been in the hospital. Countenance has rather a less anxious appearance,

and he is not so impatient; eyes a little heavy, but not much suffused; the eyes and skin are of a bright yellow appearance: respiration still performed with labour, and considerable action of the respiratory muscles: he moans less, and says he has been quite free from pain since the bleeding last night. Pulse 96, soft, and easily compressed; temperature 98. Skin moist, thirst not so great; tongue brown and chapped; one stool.

Contr: julep: aq: ammon: acetat: ut ā: et habeat grs: ij submuriat: hydrarg: bis in die.

P. M. Countenance anxious, and expressive of great distress; eyes suffused and heavy: respiration extremely laborious, and still performed with excessive action of the respiratory muscles; very restless and tossing about in bed: moans much, and speaks incoherently, nor does he answer any question put to him: extremities are become cold, and his pulse imperceptible. I saw Tucker at four o'clock, when he continued in the same state as the morning report mentions; shortly after I left him, he became more restless and uneasy: about five his breathing appeared very laborious, and his countenance anxious and depressed; a little before this time he awakened from a disturbed sleep in a fright.

Powerful stimuli, both permanent and diffusible, were had recourse to; fomentations ap-

plied to the whole body, with heated tiles, and bottles containing warm water to different parts, and to the region of the stomach; but our efforts were unavailing; the symptoms increased, and he expired at 10 P. M.

His Body next Morning exhibited the following Appearances on Dissection.

EXTERNAL.

The body generally of a bright yellow colour, and towards the nape of the neck and shoulders slightly livid.

On removing the *scull cap*, the vessels of the *dura mater* were found exceedingly turgid, shewing strong marks of inflammation; a little aqueous fluid betwixt the *cranium* and surface of the *dura mater*. The internal surface of that *membrane* highly inflamed. The vessels of the *pia mater*, even to the most minute branches, literally gorged with blood; very considerable depositions of *coagulable lymph* between the *tunica arachnoidea* and *pia mater*. The *falx* in the highest possible state of inflammation, perfectly blood-shot, and the *hemispheres* adhering to it at its posterior part. *Ventricles* greatly distended with fluid, and vessels of the *tela choroidea* completely injected; a quantity of coa-

gurable lymph betwixt the *tela* and *fornix*. Substance of the *thalami* and *copora striata* of a firm glandular consistence. Vessels of the *tentorium* very turgid, and exhibiting strong marks of inflammation; on removing the *tentorium*, vessels on the surface of the *cerebellum* very turgid, and gorged with blood, with considerable effusion of coagulable lymph; the *dura mater* lining the base of the cranium, shewing the highest possible appearance of inflammation.

THORAX.

Lungs in a high state of inflammation, with great effusion of *coagulable lymph* on their surface; *pericardium* highly inflamed, and also the *left ventricle*, with a deposition of *coagulable lymph* on the *left auricle*. *Diaphragm* in a very high state of inflammation, as well as the *pleura costalis*, with depositions of *coagulable lymph* on their surface.

ABDOMEN.

Liver much enlarged, of a grey irregular appearance, and shewing strong marks of inflammation. *Stomach* highly inflamed, particularly towards its *cardiac opening*, and in many parts covered with a layer of chocolate coloured gela-

tinous matter; *gall bladder* containing a moderate quantity of a dark coloured bile of an inspissated consistence, with a few biliary calculi. *Intestines*, in some parts, had slight marks of inflammation, distended with flatus, and containing a matter resembling that found in the stomach.

CASE V.

Thomas Tonge, seaman of his majesty's ship Ocean, at present has been doing duty in one of the cattle ships; was received into the hospital in the afternoon of the 19th of October; ætat 25, of a full habit; has some languor of countenance, with considerable anxiety and inattention, eyes a little staring and suffused; complains of severe pain across the forehead, with some soreness of the eyes, slight pain of the breast, and severe in the upper part of the umbilical region, which is a good deal affected by a full inspiration: has a short cough, without expectoration; face greatly flushed, and somewhat swollen, with a shining appearance; ideas a little confused, and answers quick; pulse 118, hard, and somewhat contracted; skin dry; temperature 105; tongue a little foul, great thirst, no appetite, a stool to-day. Says he was seized yesterday with head-ach, succeeded by cold shiverings, increased heat, pain in the

bowels, &c. Has taken no medicine; knows no cause for his illness.

Detrahantur statim ℥ xxx sanguinis ex arteria temporali et habeat pulv: jalap grs: xii submuriat: hydrarg: grs: iv statim.

R Julep: aq: ammon: acetat ℥ viii sumat: ℥ ij secundis horis.

Vespere. Pain of the breast and bowels greatly diminished, and somewhat less flushing since the bleeding; ideas now more composed, and answers less quick; pulse 110, fuller, but softer. At 11 P. M. face again more flushed; pulse fuller, stronger, and more frequent.

Detrahantur sanguis ℥ xx ut antea.

20th. Appearance of the countenance and eyes amended, but still considerable anxiety, languor, and inattention; the eyes are suffused, but there is less flushing of the face, which still retains a shining appearance. Flushing nearly disappeared after the last bleeding, and since then has been free from head-ach; has still a little pain in the breast upon inspiration, slight cough, and uneasiness of the bowels remain; has some soreness and stiffness of the eyes, is restless, and answers questions very quickly; pulse rather irregular, small, and beats 130 in the minute; skin dry, temperature 104; thirst great, several stools, respiration rather quick.

Contr: julep: aq: ammon: acetat ut ā.

V: S: ad ʒxx statim.

After the bleeding he was put into the warm bath, and a blister of a foot square applied to the epigastric region.

At 12 A. M. he is considerably easier; his pulse now 120 and regular.

P. M. Countenance still expressive of distress; flushing of the face diminished, but remains still about the sternum; says he is much easier; pulse 112, rather feeble, tongue foul, skin cooler; has a good deal of thirst.

Abradantur capilli et applicetur emplast: epispast: capiti.

21st. Passed a restless night; countenance still very expressive of distress; eyes dim and unmeaning; face a little flushed, which extends down the neck. Says he has no pain but the blisters; has a little strangury. Pulse 108, temperature 99; skin moist, tongue furred, considerable thirst, belly open.

Contr: julep: aq: ammon: acetat: ut ā.

Bibeat ad libitum infus: sem: lini.

P. M. Much as in the morning, but has been a good deal purged during the day; and, as he would not use the bed-pan, has two or three times nearly fainted on getting out of bed.

Foveatur abdomen.

22d. A bad night; eyes and countenance look

wild, with a kind of dejection. Has been restless, and is constantly tossing from side to side of the bed; speaks incoherently, respiration quick, and somewhat laborious; pulse 130, confined, and rather hard; skin dry, temperature 101; thirst and tongue much the same.

Contr: julep: aq: ammon: acetat: ut ā.

Repetatur V: S: ad 3̄ xii.

Vespere. Much as in the morning; still very restless, and speaks incoherently; respiration laborious and quick, pulse 112, small, and contracted; tongue cleaner, skin dry; no stool to day.

Applicetur emplast: epispast: fronti repetatur V: S: ad 3̄ xii.

Injiciatur enema emolliens statim.

23d. Has passed a very bad night, with constant delirium; countenance impatient, anxious, and wild; speaks incoherently, and hardly answers any question put to him; respiration seems rather more free than at last report; complains of nothing, yet appears to suffer greatly; pulse 120, rather fuller, temperature 100; tongue foul, does not complain of thirst, but drinks when it is offered to him; had several stools in the night.

Contr: julep: ammon: acetat: ut ā.

He continued in this state during the forenoon, and suddenly expired at two P. M.

Note. This man had been greatly intoxicated the day preceding that on which he was taken ill.

*Appearances on Dissection Sixteen Hours after
Death.*

On removing the *skull cap*, vessels on the surface of the *dura mater* exceedingly turgid; on raising the *dura mater*, vessels of the *pia mater*, even to its most minute branches, completely injected with blood; the internal surface of the *dura mater* highly inflamed, particularly in the course of the longitudinal sinus; the *falx* in the highest possible state of inflammation, and adhering firmly to the *right hemisphere*; vessels in the *medullary substance* very turgid, and filled with blood.

On cutting into the *ventricles*, vessels very turgid, and those of the *tela choroidea* greatly distended with blood: substance of the *brain*, generally of a very firm consistence. The *tentorium*, in the highest state of inflammation, and all its vessels most minutely injected; vessels on the surface of the *cerebellum*, very turgid; that part of the *dura mater*, lining the base of the *cranium*, highly inflamed: about one ounce of serum was found in the base, after removing the whole of the brain. To sum up the whole, there is not a part of the contents of the *cranium* which does not exhibit the most extreme marks of inflammation.

THORAX.

Lungs highly inflamed, and *coagulable lymph*, in considerable quantities, thrown out on the posterior surface of the left *lobe*. In the *right cavity*, about three ounces of *serum* were found, and about half that quantity in the left. Vessels of the *diaphragm* very turgid, and that *organ* generally much inflamed.

ABDOMEN.

Stomach empty, and exhibiting no marks of inflammation. Spleen rather large. *Liver* and *gall bladder* in their natural state: inferior parts of the *ileum* highly inflamed.

CASE VI.

Nov. 1st. John Burton, (marine), aged about 16, of a stout make and full habit; appearance of the countenance languid and inattentive, with a considerable degree of restlessness and anxiety; eyes very much suffused, heavy and dull: eyes and eyelids rather swollen; is very drowsy.

Complains of nothing but great pain in the right temple, and debility; respiration does not seem impeded. Pulse 110, full and hard; skin dry, temperature 102; tongue foul, and of a greyish colour, some thirst, no appetite; belly costive. Was taken ill about two in the morning

with violent cold shiverings, quickly succeeded by pain in the head, increased heat and perspiration: the head-ach is now more severe; has had no sickness at the stomach.

Detrahantur sanguinis ex arteria tempor:
 ℥ xxx.

Habeat pill: jalap: ē submuriat: hydrarg:

6 P. M. Face more flushed and swollen, eyes more full and suffused; pulse 112 and full.

Detrahantur sanguis: ℥ xxx ut ā.

Repetatur pill: ut ā.

2d. Slept tolerably well; appearance amended, face still much flushed and swollen, head-ach remains. Pulse 100, rather full and hard; skin dry, temperature 99: tongue and thirst much the same.

Detrahantur sanguis ℥ xx ut ā.

Habeat misturam catharticam ℥ iv statim.

P. M. Has slept a good deal in the day; restlessness and irritability nearly gone. Skin dry; temperature 103, pulse 100; several stools.

Affus: frigid: statim.

3d. Appearance of the countenance and eyes to-day nearly natural; has still some flushing of the cheeks. Says he has no complaint but slight debility; did not rest well, but perspired after the bath. Pulse 90; temperature 99; no thirst, several stools.

Habeat julep: aq: ammon: acetat: ℥ ij secundis horis.

P. M. Pulse 86 ; temperature 88 ; feels quite comfortable.

4th. Perfectly convalescent.

CASE VII.

Oct. 1st. Thomas Ryan, (seaman), ætat 20.

Complains of head-ach, general pains in his limbs, and lower part of the abdomen, which is greatly increased on pressure ; eyes a little suffused, and some depression of countenance ; pulse 100, and full ; skin hot, tongue parched and slightly foul, with bad taste ; belly costive. Says he was taken ill about ten days ago, but forgets how : has had no medicine.

Ven: sectio: ad ζ xx.

Habeat haust: aperiens statim:

Vespere. Baln: tepid:

R Mistr: salina ζ ij sumat: secund: quaque hora.

2d. Countenance more expressive ; complains of nothing but weakness ; pulse 80, and soft ; skin moist, tongue less dry : has had four copious stools.

Continuetur mistr: salina ut. ā.

P. M. Countenance very anxious, and expressive of considerable suffering ; eyes suffused and dull ; has pain in the epigastric region, but nowhere else ; respiration hurried, and the action

of the respiratory muscles a little increased: pulse 100, full and soft; skin warm, and covered with sweat; tongue dry, but cleaner; considerable thirst: has had several stools.

Repetatur V: S: ad 3 x.

Continuetur mistura salina ut ā.

Admoveatur emplastrum cantharidis regioni epigastricæ.

3d. Slept well in the night; anxiety of countenance, suffusion and dulness of the eyes nearly gone; has no pain; pulse 84, and soft: skin rather warm, but moist; tongue cleaner, thirst still considerable; has had two stools.

Habeat julep: aq: ammon: acetat: 3 ij secund: q: q: hora.

P. M. All his symptoms better, countenance very cheerful; pulse 84. Skin cool and moist; has had several stools.

Contr: julep: ut ā.

4th. Has no complaint, but weakness; countenance cheerful; pulse 86: skin cool; two stools.

Contr: julep: ut ā.

P. M. Seems worse, countenance more languid, and a little depressed; complains much of soreness and dryness of his tongue; pulse 114, very full; skin extremely warm, and covered with a profuse sweat: several stools.

Balneum tepid: statim.

Contr: julep: aq: ammon: acetat: ut ā.

5th. Greatly better, pulse 94, soft and full; skin cool, belly open.

Contr: julep: ut ā.

P. M. Much as in the morning, but pulse rather quicker, and countenance, if any thing, more languid; skin warm, but drenched in moisture.

6th. As yesterday.

Contr: julep: ut ā.

P. M. Pulse 112, full and rather hard; skin warm and dry.

7th. Slept the whole of the night, and appears greatly better, pulse 92; perspires much, thirst less, tongue better; no stool. This day being absent, the following medicine was ordered by the surgeon for him:

Mistura salina ℥ i.

Vin: antimon: 3 iſs, confect: aromat: 3 j.

M. Cochlear: iij secundis horis.

P. M. Has slept much in the day, but complains of great debility, has no pain; eyes and countenance dull and languid; pulse 100, tongue dry, temperature 100.

Add: dos: H: S: tinct: opii: min: xxv.

8th. Has slept the whole of the night, but his eyes are more dull and inexpressive, and countenance more depressed. The mixture of yesterday was repeated. When I visited him about mid-day his countenance had become still more

alarming, and eyes inexpressive; his breathing very difficult and stertorous; his pulse had fallen to 90, and very feeble.

Omittentur mistura antimonialis.

Habeat julep: camphor: $\frac{3}{4}$ ij secundis horis.

At 6 P. M. his general appearance much better, he had slept a little, and his breathing free from stertor; his pulse rose to 108, and was fuller, temperature 102; two stools.

Vespere. Continues better.

Omittentur julep: camphor:

Habeat julep: aq: ammon: acetat: ut \bar{a} .

9th. Still complains of debility, but the appearance of his countenance is much amended, and he speaks now with greater energy; pulse 90, soft and rather weak; temperature 90; several stools; has some cough.

Contr: julep: aq: ammon: acetat: ut \bar{a} .

Let him have a little sago for dinner.

9th P. M. Much as in the morning.

Contr: ut \bar{a} .

10th. Continues to improve; still complains of weakness, pulse 100; skin moist, temperature 99.

Contr: julep: ut \bar{a} .

From this time he daily amended; in the course of his convalescence, he had, at times, a troublesome cough, which was removed by the use of various pectoral medicines: he had also,

for some time, profuse night sweats, which were also removed by tonics; and he was perfectly strong and well in the latter end of December.

Note. This patient had formerly belonged to a transport, but having quarrelled with his master, he left the ship and concealed himself on shore, where he was taken ill.

CASE VIII.

Oct. 28th. John Mills, seaman of the Gorgon, ætat 35, of a stout robust make, and rather a full habit, complained about ten at night. Countenance has considerable anxiety, impatience and languor, with inattention to surrounding objects; eyelids are much swollen, and have an œdematous appearance; eyes greatly suffused, heavy, and dull, and his cheeks have a vivid flush.

Complains of severe cutting pain in the epigastric region, in both temples and across the eyebrows; soreness of the eyes, pains of the loins and legs, respiration rather hurried, anxious and deep; pulse 96, and full; skin very moist, tongue foul, belly open. Says, that about two hours ago, he was taken with slight cold shivering, to which suddenly succeeded the pain in the epigastric region, (also vertigo and

dimness of sight, which are now gone); pain in the temples, loins, and legs, with profuse sweating over all the body; has been employed in the hold, and says he felt unwell for some days past; knows no cause for his complaint, nor has he taken any medicine. Is a very irregular liver, with respect to drinking.

Detrahantur statim $\frac{3}{4}$ xxx sanguinis ex arteria temporalis.

Habeat pill: jalap: \bar{e} calomel: statim.

29th. Anxiety, impatience, and languor in the countenance somewhat amended; eyes still much swollen and suffused, and have a dull heavy appearance; flushing of the face less, but yet considerable. Pain at the stomach and of the head gone; the others are also much diminished since the bleeding: respiration not so hurried, anxious, or deep; pulse 94, and full; skin dry, temperature 100; tongue white, with a tremulous motion, some thirst, no appetite; has had two stools.

Detrahantur $\frac{3}{4}$ xx. sanguinis ut antea.

Habeat misturam cathartica $\frac{3}{4}$ vi.

Vespere. Medicine has operated very freely; all his symptoms are greatly better, but more particularly the irritable impatient anxiety of countenance, which now appears somewhat cheerful; the eyes are less swollen and suffused; pulse 74, still a little full; tempera-

ture 102, thirst and tongue nearly as in the morning.

Detrahantur $\frac{3}{4}$ xx sanguinis ut antea.

30th. General appearance of the countenance and eyes about natural; cheeks still a little flushed; slept well, pulse 68; skin natural; tongue white, with a little tremulous motion; no thirst; several stools in the night, and has some appetite.

Repetatur pill: jalap: \bar{c} calomel: ut \bar{a} .

Vespere. General appearance much as in the morning. Functions natural; tremulous motion of the tongue nearly gone.

31st. Convalescent; has had several stools, and his appetite is good.

Nov. 1. A good deal of irritability, with some anxiety and languor in the countenance; eyes slightly suffused and inexpressive; cheeks a little flushed. The part of the head, at which the artery was opened, is swelled and inflamed. Says he has no pain but where the swelling and inflammation are; respiration is hurried, which seems to arise from the irritable state which he is in. In the middle watch, as well as this morning, had cold shiverings; at present is in a profuse perspiration; pulse 100, full and hard, temperature 102; has rather been purged since last

report: tongue white, thirst considerable, no appetite.

Detrahantur $\frac{3}{4}$ xvi sanguinis ex arteria temporalis.

Repetatur pill: jalap: \bar{c} calomel.

Vespere. General appearance much as in the morning; says he is free from pain; respiration more natural. Pulse 116, rather small, tongue pretty clean; temperature 103, skin moist, thirst less. Has had six or seven stools in the course of the day.

V: S: ad $\frac{3}{4}$ xvi.

2nd. General appearance of the countenance and eyes amended, irritable appearance gone, and the cheeks less flushed.

The part of the head where the temporal artery was opened, is more swelled, particularly about the eye; respiration free and calm. Pulse 98, rather hard and full; skin dry, temperature 101. Tongue still foul, belly open, and has some appetite.

Habeat $\frac{3}{4}$ ij julep: aq: ammon: acetat: tertiis horis.

Vespere. Generally better; flushing of the cheeks nearly gone; swelling about the eye and temple if any thing increased. Pulse 90, skin dry, temperature 100, tongue clean.

Applicetur hirudines No: vi. tempor:

3d. Has no complaint except the swelling of

the temple, which is greatly diminished; and, independent of this, appears quite well. The temple was from this time covered with cloths wetted with a solution of cerussa acetat: and he soon returned to his ship.

CASE IX.

Mark Shipley, seaman of the Swiftsure, admitted into the hospital October 24.

Surgeon of the Swiftsure's Case.

Oct. 18, P.M. Mark Shipley was seized with rigors, succeeded by moderate pyrexia; pain in the head and knees, skin hot, pulse quick and soft, bowels and stomach natural; some thirst, tongue clean.

Capt: sulph: magnesia \mathfrak{z} j.

19th. Purged; pyrexia moderate; pain in the head and loins, tongue whitish.

Capt: antimon: tartariat: grs: \mathfrak{s} .

Nitras potassæ grs: iv.

In the middle of the day vomited a worm eight inches long, alive.

P.M. Great pain in the stomach; vertigo approaching to syncope; nausea.

Capt: calomel: grs: vi.

20th. Gnawing pain in the stomach; vertigo

and prostration: pulse frequent and small; tongue clean, purged.

Capt: calomel: grs: ij secunda q: q: hora.

P. M. Tongue rather foul; pyrexia increased.

Contr:

21st. Pyrexia moderate, pulse frequent, skin cool. No nausea, purging, or stupor. Contr:

22nd. Better, gums slightly affected, pyrexia slight, feels some appetite. Contr:

P. M. Exacerbation, pain in the sinciput and scrobiculis, no ptyalism.

V: S: ad ʒ xxx. Repetatur sulph: magnes: ʒ j ut ā.

23d. Better, less pain in the head, but has soreness of stomach; gently purged; pulse moderate and soft, skin and tongue natural.

Omitt:

24th. Pulse quick, weak; pain in the occiput and limbs; tongue white, no nausea, scabby eruption about the mouth and nose.

Capt: calomel: grs: iv.

State when received into the Hospital.

24th. Ætat 46, of a spare habit, countenance very anxious and languid, eyes dull and inexpressive, face greatly flushed and of a glossy appearance, which extends down towards the top of the sternum. Vessels of the eyes rather

full, and the eyes themselves watery. Complaints of very severe pain of the head, especially over the orbits, and in the course of the longitudinal sinus, considerable vertigo, and intolerance of light; pulse 100, temperature 99. Skin moist, tongue white, thirst urgent; no appetite, one stool to day.

Habeat pill: jalap: ē calomel.

Sumat: julep: aq: ammon: acetat: ℥ ij secunda q: q: hora.

Vespere. General appearance as before, and complaints remain the same; pulse 104, and full; temperature 100, skin dry.

Detrahantur ex arteria temporali sanguinis ℥ xx.

25th. Passed an indifferent night, but his countenance is less anxious, and eyes more lively; flushing and glossy appearance of the face nearly gone; head-ach and vertigo greatly diminished since the bleeding, and both are now very slight; light more tolerable to the eyes; pulse 76, temperature 98, tongue cleaner, thirst less, skin dry; two stools in the night.

Continuetur julep: aq: ammon: acetat: ut ā.

Vespere. Free from pain, appearance much amended, pulse 76, tongue clean, appetite improved; a good deal of thirst, skin cool, two stools.

Habeat calomel: et pulv: antimon. āā grs: ij statim.

26th. Passed a good night, countenance and eyes much amended; face and neck free from pain, but complains of a little cough; functions natural.

Repetatur julep: aq: ammon: acetat: ut ā et pill: calomel: ē jalap.

27th. No stool; otherwise much as last report.

R Ol: recini: ʒj aq: m: pip: ʒij sumat: statim.

28th. Two evacuations from his medicine; cough better.

Cont: julep: ut ā.

Vespere. Quite a convalescent.

29th. Continues well.

Repetatur pill: jalap: et calomel ut ā.

30th. Put on half diet, allowed wine and water.

Nov. 1st. Complains of slight head-ach, but the functions are natural.

Applicetur emplastrum cantharidis inter scapulas.

2nd. Blister rose well, but the head-ach continues.

3d. Vespere. Countenance anxious, restless, and a little depressed; eyes heavy, dull, and a little suffused; complains of severe pain across the forehead, dimness of sight, tinitus of the left ear, and great vertigo, especially in the erect posture. Pulse 102, and full; skin moist, temperature 100, thirst urgent, one stool in the day.

This morning, about eight o' clock, was seized with head-ach and cold shivering. The first still continues, and the latter remained till mid-day, which was followed by increased heat, and there is now a slight sweat about the neck.

The night of the second the pulse was 90, and full; skin dry, temperature 99, face a little flushed, and for the last two days the eyes were a little dull and heavy. The half-diet and wine to be discontinued.

Abradantur capilli. Applicetur vesicatoria frontis.

Detrahantur ex arter: tempor: sang: $\frac{3}{4}$ xvi statim.

4th. Countenance amended, pain of the head gone, but tinitus, though less in degree, still remains; blister rose well, pulse 84, and soft; skin natural, little thirst, has had one stool, complains of a little strangury.

Injiciatur enema commun: statim.

Let him drink plentifully of linseed tea.

Foveatur abdomen.

P.M. At three this morning had another cold shivering (which lasted about two hours), succeeded by a hot stage, but this has not been followed by a sweat; had two stools from the enema, and pain of the bowels gone; otherwise is much as in the morning.

5th. Generally amended, but has still considerable tinitus. Had a slight paroxysm to-day,

which lasted about an hour ; has some difficulty in making water ; complains a good deal of weakness, and is emaciated.

Injiciatur enema: ut ā.

Sumat: julep: salina: ℥ij secunda q: q: hora.

6th. Has had no paroxysm to-day. Contr: julep: ut ā. Tinitus much the same.

7th. Had a very slight fit to-day ; tinitus remains ; general appearance on the whole improves, but there is still a little stupor and dullness of the eyes.

Habeat grs: ijss pill: hydrarg: mane et vespere.

8th. 9th. 10th. 11th. General appearance much improved, and the tinitus greatly lessened. Has had no paroxysm since last report, but has now and then complained of head-ach, which at present is but slight. Pulse 80, temperature 99, tongue rather white, no thirst, appetite very good, belly regular. From this time little change took place, occasional laxatives were given, he continued the use of mercury in small doses, his diet was augmented, and he rapidly recovered.

CASE X.

John Smith, seaman of his majesty's ship Swiftsure, admitted into the hospital October the 24th.

Surgeon of the Swiftsure's Case

Oct. 23d. Pyrexia, pulse frequent, hard and strong, skin ardent, tongue natural, pain in the back; no nausea, stupor, or purging.

Mitt: sang: ℥ xii.

Syncope induced.

Capt: calomel: grs: iv.

State when admitted into the Hospital.

Ætat 22, very stout make, and full habit; much languor and anxiety in the countenance, with considerable vacancy and inattention; eyes suffused, heavy, and dull; face greatly flushed, and swollen, having a glossy appearance. Complains of severe pain in the forehead, and generally in every part of his body. Considerable prostration, breathing anxious and laborious, but says he has no pain in the breast, and inspires freely. Pulse 90, full and hard; skin dry, temperature 101; tongue white, thirst considerable, belly open.

Detrahantur ex arter: tempor: sanguinis ℥ xxx.

Habeat pill: jalap: \bar{c} calomel:

Julep: aq: ammon: acetat: ℥ ij secunda q: q: hora.

25th. Languor, anxiety, and inattention little diminished, eyes less suffused, flushing and swelling of the face somewhat reduced, and the head-ach is much better since the bleeding; he complains of great pain, and soreness of every part of his body, to the very extremities of his fingers and toes, as he expresses it; has considerable nausea, and some vomiting, which he says troubled him much in the night; moans greatly on inspiration, and is extremely restless; seems rather acute in his perceptions and answers. Pulse 128, small and hard; skin dry, temperature 102. Tongue has a greyish colour, thirst urgent, complains much of a soreness about the superior part of the abdomen.

Applicetur regioni epigastricæ hirudines
no: xii.

Contr: julep: aq: ammon: acetat: ut .

Vespere. Anxiety, with irritability of countenance rather increased, languor and inattention less. Complains of most severe and acute pain in the epigastric and umbilical regions. Other symptoms nearly as in the morning; stools rather scanty.

Detrahantur ex arter: tempor: sanguinis 3xvi.

Repetatur pill: jalap: c̄ calomel: ut ā.

Foveatur abdomen.

26th. Anxiety of countenance somewhat less, but irritability remains nearly the same; suffusion

of the eyes decreased, in other respects is much as before; the whole body is of a bright yellow colour. Says the general soreness is much relieved, since the bleeding, as is also the pain in the epigastric and umbilical regions; there is still a good deal of the last remaining, and he has great nausea, and sometimes a little vomiting of a dark coloured matter, mixed with blood. He has now no head-ach, but considerable vertigo; is extremely restless, and moans greatly: the face is still a little flushed, but the swelling and glossy appearance are nearly gone. Pulse 100, weak, and soft, temperature $99\frac{1}{2}$; tongue greyish and furred, thirst less; no stool, but has slight tenesmus.

Habeat mistura effervescens et repetatur pro re nata.

Vespere. General appearance better, anxiety and irritability less; the face, however, is rather more flushed; pain in the umbilical and epigastric regions gone, as is also the moaning on inspiration; has vomited his draught at times through the day, but has now neither nausea or vomiting, vertigo much diminished. Pulse 90, full and soft; skin moist, temperature $99\frac{1}{2}$; tongue cleaner.

Repetatur haustus ut ā.

27th. Appearance improved; yet the face is still flushed, vertigo less, soreness of the body

gone; has been a good deal harassed this morning with nausea and vomiting. Pulse 98, and full, skin dry, temperature 99; tongue and thirst much the same; no stool.

Contr: *mistura effervescens* ut \bar{a} .

Habeat pill: *calomel: et jalap: ut \bar{a}* .

28th. Continues to improve a little; anxiety much less, irritability and impatience considerably diminished; flushing of the face less evident. No return of pain or uneasiness in the umbilical or epigastric regions; complains, at times, of slight nausea, but has vomited none during the night; took an effervescing draught this morning, which he immediately rejected, but felt much relieved of his nausea. Pulse 92, soft, skin dry, temperature 100: thirst urgent, tongue foul, but moist; no stool.

Injiciatur *enema purgans statim*.

Repetatur *haustus et pill: jalap: c̄ calomel ut \bar{a}* .

Vespere. General appearance as in the morning; has had two copious and foetid stools, and frequent returns of nausea during the day, but was always relieved after taking an effervescing draught: complains still of vertigo. Pulse 94, rather full but soft, temperature $98\frac{1}{2}$; tongue cleaner, no appetite; senses still acute.

Applicetur *emplast: cantharidis: singulis temporibus*.

29th. Anxiety and irritability of countenance less, but there is more languor, with some drow-

siness; restlessness nearly gone; slept a little in the night, vertigo and nausea are rather less; cheeks a little flushed, skin of a deep yellow, and has gradually been becoming so. Pulse 80, and full, skin dry, temperature 99; tongue brown, dry, and furred; thirst not diminished; some cough, no stool.

Contr: haustus ut ā.

Ol: recini: ℥j aq: M: pip: ℥ij statim sumend:

Injiciatur enema ut ā pro re nata.

Vespere. Several stools from the medicine, but previously an enema was thrown up: languor and drowsiness much less, and the general appearance of his countenance amended. Vertigo and nausea diminished; senses not so acute. Pulse 84, full, and soft; skin dry, temperature 99; tongue and thirst much the same.

30th. Continues better; still some flushing of the cheeks; vertigo and nausea gone. Pulse 78, full and soft; tongue and thirst nearly the same; has been much purged in the night.

Contr: haustus ut ā.

Vespere. Has remained very easy during the day, and seems considerably better.

31st. Much as last report, but if any thing improved. Pulse 74; skin moist, temperature 98: more thirst, tongue still covered with a brown fur; has a desire to eat; three stools.

Contr: haustus ut ā.

Vespere. Continues better; still becoming more yellow; has had two stools.

Nov. 1st. Is not quite so well to-day; has considerable vertigo and nausea, with some vomiting; no pain, but complains of debility. Pulse 99, full, and rather bounding; skin dry, temperature 98. Thirst much as before, no appetite; has had three stools.

Contr: haustus ut ā.

R Pill hydrarg: grs: iv. pulv: jalap: grs: vi conservæ rosæ q: s: ut ft: boli h: s: sumendus.

2d. Greatly amended, and though he has been frequently to stool, slept much better than the preceding night. Vertigo and nausea nearly gone. Pulse 84, skin dry, temperature $88\frac{1}{2}$; tongue cleaner; has still some thirst.

Contr: omnia ut ā.

3d. Much better; vertigo and nausea quite gone, and he is in fact perfectly convalescent.

Habeat infus: quassia ℥viii in die.

Contr: pill: hydrarg: \bar{c} pulv: jalap:

The infusion and pills were continued: from this time no change of moment took place, and before the end of the month, he was entirely recovered.

CASE XI.

Charles Goodall, seaman, of his majesty's ship, Swiftsure, admitted 20th of October.

Surgeon's Case.

Ætat 34. Oct. 16. Complains of general high pyrexia, great tremor, and prostration; pulse small and very quick; tongue white, pain in the head, with cough and coryza.

Capt: sulph: magnes: ζ j.

P. M. Purged copiously.

Capt: pulv: antimon: grs: vi.

17th. Pyrexia rather abated.

Repetatur pulv: antimon:

P. M. Purged much; pyrexia increased: pulse very quick and small. Prostration approaching to syncope. Pain universal; tongue moist.

Capt: opium grs: ij.

28th. Pyrexia high, yet heat moderate; pulse soft and less frequent; great pain in the orbits and scrobiculis cordis: no stupor, but considerable prostration; tongue white and dry.

Capt: calomel: grs: ij secunda q: q: hora.

P. M. Much better; pyrexia moderate, *syn-*

cope readily induced by exertion; skin cool, tongue clean; no purging.

Contr: calomel: ut ā.

19th. Pyrexia moderate, prostration less; despondency, but no stupor; no retching: skin cool, tongue clean; no purging.

Contr: ut ā.

20th. Feels better, has prostration, with head-ach and vertigo, but no stupor: pulse slow and irregular; skin cool, tongue pretty clean; no ptyalism.

Continuetur.

State when admitted into the Hospital.

Patient of a full habit, countenance and eyes heavy, face flushed and swollen; the flushing extends down the neck; eyes suffused and blood-shot. Complains of severe pains of the head and loins, extending to the calves of the legs; giddiness and great languor. Pulse 88, temperature 102; tongue foul, no appetite; thirst urgent, belly open.

Detrahantur statim $\frac{3}{4}$ xxx. sanguinis ex arteria temporali.

Capt: pill jalap: \bar{c} calomel.

Habeat julep: aq: ammon: acetat: $\frac{3}{4}$ ij secunda q: q: hora.

21st. He slept a little towards the morning, and was pretty easy through the night. Coun-

tenance expressive of suffering; flushing of the face and neck still great, and reaching as far as the top of the sternum. Pains of the head and loins much relieved; eyes a good deal suffused and bloodshot; giddiness gone, he answers questions quite collectedly, and seems upon the whole better. Pulse 83, full, but soft; tongue furred, temperature 101; skin dry, thirst urgent; several stools in the night.

Contr: julep: aq: ammon: acetat: ut ā.

Vespere. Countenance improved, eyes less languid, but still look rather anxious; face and neck less flushed, feels quite easy. Pulse 80, and soft; skin cool, tongue clean, no thirst, belly open.

22d. Passed a good night, and slept well towards the morning. Countenance much improved, flushing diminished; says he is free from pain, but feels languid; pulse 78, temperature 98; skin dry, thirst abated, tongue pretty clean, and seems quite free from pain.

Repetatur pill: calomel: et jalap:

Continuetur julep: aq: ammon: acetat: ut ā.

Vespere. Continues better; one stool.

From this time nothing worth notice occurred. On the 26th he was put on half-diet, and was soon discharged to his duty.

The Notes of the following Cases of Fever, treated in the Naval Hospital by the Surgeon, were not taken, and the Transcript is made from their Prescription Tickets, with a view of elucidating the Morbid Appearances, found on Dissection. In the Progress of their Diseases, they exhibited precisely the same Symptoms as the others.

Daniel Nash, seaman of the Curacoa, was received into the Naval Hospital with fever, on the 17th of October, of which he had been some days previously ill on board, and had taken an emetic, with febrifuge mixtures.

On the 18th, a blister was applied to the nape of the neck, and the following mixture ordered:

Mistr: salina: feb: ℥ j.

Vin: antimon: ℥ iſs M: cochlearia iij secund: q: q: hora, and pedeluvium, with sage tea, for common drink, were ordered.

18th. Medicine and drink continued.

Mistr: salina: ℥ ij. vin: antimon: min: xxx.

Tinct: opii: min: xxx. M: hora somni; the pedeluvium repeated.

19th. Medicine and drink as before.

20th. He took some cathartic pills and his julep.

Pill hydrarg: grs: vii bis die, a blister was applied to his breast; and his night-draught

repeated, with the addition of vin: antimon:
min: xxxx.

21st. Mercurial pills, julep and night-draught continued.

22d. Pills, night draught, and drink continued.

23d. Pills and draught continued; and he was ordered cathartic pills till they operated.

24th. Mistr: camphor: ℥ j. mistr: salina:
℥ vi. æther recti: 3j tinct: mosch: min: xx M:
cochlear: iij omni hor: sumend.

He died in the evening.

Dissection about Sixteen Hours after Death.

Slight effusion betwixt the dura mater and skull cap. Meningeal arteries very turgid. Circumvolutions of the brain filled with coagulable lymph, of a soft consistence; vessels of the pia mater preternaturally distended with blood, exhibiting strong marks of inflammation, and violent action, as did every other part of the brain. A considerable quantity of serum in the base of the cranium.

THORAX AND ABDOMEN.

Several adhesions of the right lobe of the lungs to the pleura costalis; a thin layer of coagulable lymph thrown out on their surface. Several ounces of water were found in the cavity of the thorax, and effusion into the lungs had

taken place, to a considerable extent. The whole course of the intestines exhibited marks of high inflammation.

John Burn, seaman of his majesty's ship, Leviathan, received from the Lady Mackworth cattle ship.

Copy of the Prescription Ticket.

September the 22d.	<i>Low diet.</i>
Ven: sectio ad ℥ij statim	A.
Haust: aperiens	B.
Pedelvium hora decubit:	C.
Mistura salina ℥i	
Vin: antimon: ℥i M: cochlear: 3 secunda	
q: q: hora.	D.
Emplast: lyttæ ad nuch: applicand:	E.
Thea: melis: pro potu commun:	F.
23d. D: et F: continuend:	
24th. D: et F: continuend:	
<i>Half diet and half a pint of wine.</i>	
25th. D: et julep limon:	
Pill: no. iv. iiij statim.*	
B: statim.	
A: ad ℥ij.	
E: ad later: applicand:	
C: hora somni.	

* These are cathartic pills.

26th. Calomel ppt: grs: vii.

Pulv: jalap grs: x.

Pulv: antimon: grs: iij. Electuar: } *Low*
 sennæ q: s: ft: bol: statim sumend: et } *diet.*
 repetatur tertia hora donec alvus } N.
 sæpe respond:

F: ut antea. Repetatur bolus ut supra.

Enem: pur: statim injiciend: I.

Emplast: lyttæ ad scrobic cordis. K.

Mistura salina ℥i. Confect: aromat: ʒi } L.
 M: coch: iij tertia hora post operation }
 medicamenta cathart.

27th. L: ut antea.

Ol: recini: ʒi. Tinct: opii: min: x statim:
 sumend: (M).

28th. L: ut antea.

29th. L: ut antea: F: continuend:

*A note is made on the margin: "little or no
 vomiting; had several stools last night."*

30th. L: et M:

Oct. 1st. Lac: amygdal: ℥i.

Nitr: potass: ʒiſ paucul tertia hora (N).

L: continuend:

2nd. N: ut ā.

3d. Haustus aperiens statim: sumend: post
 operation: Repetatur E: ut ā.

C: statim.

Cataplas: emoll: bis die.

Note—*The left parotid began to suppurate.*

4th. Decoct: cinchon: ℥ i.

Tinct: ejusmod: compos: ℥ i M: cochlear: iij
secunda hora. O.

Julep: limon: pro potu.

5th. Haust: aperiens prima.

Haust: salinæ: ℥ ij.

Tinct: opii: min: xv h: s:.

Died in the afternoon.

Dissection about Eighteen Hours after Death.

The whole external surface of the body of a deep yellow, suppuration had taken place in the left parotid gland.

On raising the cranium, the smaller branches of the meningeal arteries were very considerably distended. The superior surface of the dura mater shewed no positive marks of inflammation. Upon turning it up, its inferior surface appeared slightly inflamed; but towards the longitudinal sinus, highly so. The circumvolutions of the brain, more particularly on the superior and posterior part, filled with coagulable lymph to a very considerable degree; the blood vessels of the pia mater greatly distended with blood, even to the minutest branches, and shewing the most decisive marks of the highest inflammation; the hemispheres below the falx anteriorly, adhering

very firmly together; the blood vessels of the tomentum so completely filled, and shewing such a bloodshot appearance, that the vessels individually could with difficulty be perceived; the tunica arachnoidea, adhering to the dura mater lining the left temporal bone. No morbid appearance of the medullary substance. The lateral ventricles full of water, as also the fifth, which occupied the whole length of the septum lucidum; the blood vessels of the lateral ventricles distended with blood to an uncommon degree; a quantity of coagulable lymph was lying in the hollow betwixt the corpora striata and thalami nervorum opticom: the choroid plexus rather flaccid. Vessels of the tela choroidea greatly distended, no coagulable lymph attached to it, except to that part immediately over the pineal gland and tubercula quadragemina; the commissura mollis firmer than usual; the third ventricle full of water, and its vessels anteriorly rather turgid.

Vessels of the tentorium very full, exhibiting strong marks of inflammation, but more particularly its inferior surface. Vessels of the pia mater covering the cerebellum, even to the most minute branches, literally gorged with blood. Vessels of the dura mater of the base of the cranium, more aborescent, and exhibiting much stronger marks of inflammation than on

the superior parts. About half an ounce of serum in the base of the cranium.

No marks of disease in the thorax or abdomen, except the distention of the latter cavity; the colon distended with air, gall bladder very full. Substance of the liver of a yellow colour. Stomach containing a quantity of fluid of a yellow colour.

Major Dickenson, seaman of the Lady Mackworth, received into the hospital September 22, 1812.

Copy of the Prescription Ticket.

Low diet.

Ven: sectio ad ℥i statim A.

Haust: aperiens: statim post operat: V: S: B.

Pedelvium hora decubit C.

Emplast: lyttæ ad scrobic: cordis applicand: D.

Mistura salina ℥i.

Vin: antimon: 3j M: cochlear: iij secund: q: q: hora sumend: post operation: supra haust: cathart; E.

Repetatur B: donec alvus sæpe respond:

23d. E: thea melis: pro potu commun: F.

*24th. E: addend: vin: antimon: ʒi secunda
hora sumend:

B: statim.

Julep: limone pro potu commun: G.

25th. Haust salin: ʒ ij.

Tinct: opii min: xxx statim sumend:

C: statim. A: ad ℥iʒ.

D: ad later: applicand:

B: ut supra.

26th. B: ut antea statim et repetatur.

Mist: salin: febrifug: post operation haust:
cathart:

G: pro pot: ordinar:

E: pro pot: commun:

Died in the evening of the 26th.

Dissection Fourteen Hours after Death.

EXTERNAL.

Skin and eyes tinged generally with a shade of yellow. Back and shoulders have a livid appearance. Belly loose, and apparently the intestines charged with flatus,

On removing the upper portion of the cranium
—The surface of the dura mater extremely vas-

* On this day the vomiting was excessive; the stomach rejecting every thing.

cular, and had something of a bloodshot appearance; the vessels loaded with blood, apparently much enlarged, and the whole exhibiting high marks of inflammation. The vessels of the pia mater completely gorged with blood, and also in many places, covered with a layer of coagulable lymph. The falx highly inflamed, and the hemispheres anteriorly adhered to each other. The vessels of the tela choroidea greatly enlarged. The ventricles distended with fluid. The tentorium and septum cerebelli highly inflamed and livid, and the dura mater lining the base of the cranium in the same state.

THORAX AND ABDOMEN.

Lungs a complete livid mass, choaked with blood; the pleura slightly inflamed. The heart exhibited nothing material. The stomach and intestines distended with a dark coloured fluid and air, and the latter exhibiting marks of inflammation through their whole course. The liver much enlarged, and the lower edge of its concave side livid. Gall bladder nearly empty.

Richard Walker, seaman of the Lady Mackworth, received into the hospital September the 20th.

Prescription Ticket.

Ven: sectio ad ℥ ij statim A.

Haust: aperiens statim sumend: B.

B: repetatur donec alvus respond: sæpe et post operation: cochlear: iij mistura sequentis sumend:

Mist: salina febrifug: ℥ i.

Vin: antimon: tart: ʒ i M: C.

Julep: limona pro potu commun: D.

22nd. C: et D:

23d. C: et D: pill: hydrarg: grs: iij bis in die. E.

Haust: salin: febrifug: ʒ ij.

Tinct: opii: min: xxv.

Vin: antimon: min: xv h: s: sumend: F.

*24th. Pill: hydrarg: grs: v.

Calomel pp: grs: iij ter: die sumend:

Mitt: sanguis: arter: tempor: ℥ ij statim.

Haust: aper: statim sumend:

* Walker was on this day comatose, the stomach rejecting every thing, and vomiting blood; he had been violently delirious the preceding night.

25th. V: S: ad ℥iſs.

Mist: salina ℥j cochlear: 3 secunda quaque hora.

Vespere. Emplast: lyttæ ad scrob: cordis applicetur si occasio; G.

26th. C: D: ut antea.

Thea melis: pro potu ordinar: H.

Cataplasma emolliens statim I.

C: ut ā prescript:

27th. C: ut antea et I: repetatur quarta hora.

F: ut antea.

28th. Calomel pp: grs: vii.

Pulv: jalap: grs: x elect: sennæ q: s: fiat boli statim sumend: et repetatur si occasio donec alvus sæpe responderit K.

I: repetatur ut antea.

29th K ut ā.

Liniment: saturn: ad partes affectis illinatur antea applicatio cataplasma: L.

Julep: limon: pro potu commun:

30th. I: et L: Haustus aperiens statim.

October the 1st. L:

Pill: hydrarg: grs: v. Pulv: antimon: grs: iij bis die cum cyatho potio sequentis M.

Lac: amygdal ℥iſs

Nitras potassæ 3 iſs

Mellis despumat 3 iij M:

2nd. N: ut heri iij

H.

N.

3d. N: ut antea I.

Elect: sennæ 3 ij.

Pulv: jalap: grs: xv.

Calomel grs: iv M: statim sumend:

Died at three o' clock P. M.

There is a note on the margin of the ticket, opposite the 2nd, as follows:—"Had several stools during the night and yesterday."

*Appearances on Dissection about Fourteen
Hours after Death.*

EXTERNAL.

The body generally yellow, the left parotid gland suppurated, the right much inflamed.

On removing the skull cap, the dura mater appeared of a bright yellow colour, and highly inflamed. The vessels of the pia mater very turgid, and a considerable quantity of coagulable lymph thrown out on the circumvolutions of the brain, particularly at the upper and posterior part, with adhesions of the hemispheres at different points, and marks of active inflammation.

On cutting into the lateral ventricles, there flowed out about two ounces of a yellowish fluid; the choroid plexus rather flaccid than otherwise; coagulable lymph between the for-

nix and tela choroidea, and the latter exhibiting strong marks of inflammation. A considerable quantity of fluid in the third ventricle, of the same sensible qualities as that in the lateral. The tentorium cerebelli very vascular, with considerable effusion of lymph on the surface of the cerebellum, and extravasation of serous fluid on the base of the cranium.

On dissecting back the integuments, and raising the sternum, all the membranes lining the cavities of the thorax exhibited a bright yellow appearance. The lungs throughout shewing marks of high inflammation in different parts, but more particularly on the right side, where there was a recent layer of coagulable lymph on its upper part; some effusion into the cavity of the thorax.

Vessels of the stomach preternaturally distended; stomach distended with flatus, and containing a dark coloured fluid; blood vessels of the mesentery and intestines very full. Intestines distended with flatus, and containing a matter similar to that found in the stomach.

The foregoing prescriptions for Burn, Dickenson, and Walker, are copied verbatim from the original now in my possession.

CASES

COMMUNICATED BY SOME OF THE SURGEONS
OF THE FLEET.

From Dr. Ross, Surgeon of the Resistance.

Mr. Morgan, surgeon of his majesty's ship Temeraire, ætat forty, of a full habit and florid complexion, was indisposed for several days with general languor, loss of appetite, nausea, and a sense of weight about his head; his tongue was white and moist, accompanied by an unpleasant taste in his mouth. Mr. Morgan, imagining that his illness proceeded from a foul stomach only, and would soon go off, took a cathartic medicine, which operated roughly, and he felt relieved. About two days afterwards he complained of severe head-ach, but particularly of pain, and a sense of weight above the eyes, which had a dull heavy appearance, and his eye-lids were much swollen. The pulse was about 120, but had no particular marks to indicate an inflammatory action; indeed it was such, that without other concomi-

tant circumstances, and without experience in similar cases, many practitioners would have been averse to the abstraction of blood. Sixteen ounces of blood were immediately taken from the arm, with much sensible benefit; and after it, his head, which he described "*as being like to split,*" was much relieved, and he was not so acutely sensible to the noise around him. Draughts of the julep: aq: ammon: acetat: were taken every hour. In the evening his severe head-ach returned, and was accompanied by pain in the side, and difficult respiration; the bleeding was again repeated with instantaneous relief, and I left him for the night, with a request that he would send for me the instant he should feel any return of head-ach or difficult inspiration. He passed an indifferent night, but did not find it necessary to call my assistance. In the morning, at half past eight, he complained again of much head-ach, and the pain shooting above the orbits of the eyes. I immediately opened the temporal artery, but from its retraction, could not procure more than three or four ounces of blood. Three leeches were then applied to each temple, and for five hours the bleeding from the orifices was encouraged by warm fomentations. In consequence, however, of the symptoms not being by these means alleviated, a cupping glass was applied above the

orifices made by the leeches on each temple, from whence about twelve ounces of blood were procured in a short time ; and it was with much satisfaction I heard the patient declare himself relieved. From this moment the febrile symptoms gradually abated, the pulse became moderate, and the skin, which was before but partially, uniformly moist ; and he informed me, that he had a copious evacuation of urine, to the irritation of which he had not before been sensible. After the fever disappeared, an attack of gout, to which Mr. Morgan is subject, succeeded, and it fixed, as it had sometimes done before, on the knee joint ; and, after quitting which, it took its station in the great toe, where it now remains.

On reading the above case to Mr. Morgan, I find that two symptoms, which existed at the height of his illness, have not been mentioned ; these are vomiting of bilious matter and grumous blood, accompanied by epistaxis. The only medicine he took, besides the draughts, were cathartics of calomel and extract of colocynth with aloes.

There can, I trust, be no doubt, but that Mr. Morgan's fever was of the same nature with the epidemic that then prevailed so extensively ; he believes so himself, and candidly gives me the credit of having saved his life by the timely abstraction of blood.

I am the more particular in mentioning this case, as it occurred in the person of a medical man of considerable experience, *and whose candour is such as to acknowledge the efficacy of the treatment*, though it was contrary to the plan he had adopted with his own patients under similar circumstances.

CASE II.

Lieutenant Hooper, of his majesty's ship *Temeraire*, had been indisposed for two days with general languor, loss of appetite, accompanied by a bad taste in the mouth, and head-ach; which symptoms he attributed to having caught cold, and were at first little attended to. I was sent for at midnight, and found him complaining of intense head-ach, and particularly of pain above the orbits of his eyes; the pulse was about 130, and rather hard; the tongue foul, but moist, with considerable thirst, and he complained much of sensibility to the noise around him; his skin was hot and dry. The temporal artery was immediately opened, and, while the blood was flowing, he declared himself quite relieved, and his head-ach almost gone. By the time that there were twenty ounces in the cup, his head-ach, and pain above the orbits, completely vanished, and the temperature of his head, which

before communicated a burning sensation to the hand, was reduced to a natural standard. In the morning he informed me, that after the bleeding, he had had a comfortable sleep; but that though he still felt a weight about his head, he was much better. His pulse was then at 90, and the skin of a natural temperature and moist; the tongue was foul, and he had much thirst. A cathartic of calomel and jalap was given, and he took an effervescing draught every hour. Next morning at six o'clock I was again sent for; my patient complained of having passed a restless night, his head-ach returned, accompanied by a buzzing noise in his ears, together with much increase of heat. The temporal artery was again cut with the same instantaneous benefit as at first; twelve ounces were taken at this time; the first above twenty-two were abstracted. The blood each time consisted of a firm coagulum, and did not separate into crassamentum and serum.

Mr. Hooper, from this time, had no return of fever, and in about a week was restored to health.

CASE III.

——— Coleman, the assistant to the ward-room steward, was affected with the fever in a similar manner to Mr. Hooper; by one bleeding

from the arm, he felt himself so well, that, unknown to me, he returned to his duty.

The fever, however, again attacked him next day more severely than at first, and was again arrested by another copious venesection, and, after this, he had a rapid recovery. Before a week elapsed, during which he took several brisk cathartics, he was at his duty.

TWO CASES OF RELAPSE,

IN WHICH THE GOOD EFFECTS OF THE ABSTRACTION
OF BLOOD WAS STRONGLY EXEMPLIFIED.

Also communicated by Dr. Alexander Ross.

Naval Hospital, Mahon, Oct. 26, 1811.

Thomas Bennison, seaman of his majesty's ship *Temeraire*, ætat 22, was taken ill suddenly this morning with vomiting, accompanied by general uneasiness, head-ach, and pain in the abdomen. His description of his own sensations was very indistinct and confused. On visiting him at half past seven this morning, I found him vomiting a bilious looking matter, and complaining chiefly of head-ach and pain in the abdomen; his pulse was 120, skin very hot, and

rather dry; temporal arteries throbbing strongly, and his tongue rather parched. The temporal artery was immediately opened, on the left side of the head; but, as only five ounces of blood could be procured, the artery of the other side was also opened, from which fourteen ounces of blood were drawn, with almost instantaneous relief to the patient; the pulse was much diminished in frequency, and the heat of skin became more natural. A bolus, consisting of submurias hydrarg: grs: v pulv: jalap: was then given, with orders to repeat it in six hours, if the first should not operate.

Oct. 27. Cathartic operated freely; to-day he is quite free from fever; tongue, skin, &c. natural.

28th, 29th, 30th, continues to recover.

REMARKS.

This patient had been on the convalescent list from the fever, which then so generally prevailed in the *Temeraire* and *Invincible*; and the surgeon of the latter, and assistant of the former, did me the favour, at my particular request, to witness the effects of the bleeding. They allowed that the case was exactly similar to the prevailing epidemic, which had been treated by them in a manner quite the contrary to that followed in the present instance.

CASE II.

Oct. 27, 1811.

Thomas Mantoff, seaman, belonging to the *Temeraire*, ætat about 20, was taken ill yesterday by shivering, to which succeeded heat, head-ach, and pains all over his body; the tongue was white and moist, and he complained of general debility. Pulse 125, and rather weak. Has been convalescent these fourteen days past from an attack of the prevailing fever, and, including an attack of bowel complaint, *this is the third relapse*. The temporal artery was immediately opened, and sixteen ounces of blood were abstracted, with sensible diminution of febrile action; the head-ach was not however removed, a cathartic bolus, as in the preceding case, was given. In the middle of the day the febrile symptoms increased, and fourteen ounces of blood were taken from the arm, and the cathartic repeated. The bleeding again allayed the febrile action, but the cathartic was rejected.

Decoct: hordei ad libitum pro potu cum super tart: potassæ acidulat:

Injiciatur enema cathart:

Low diet.

28th. The febrile symptoms returned last night, accompanied by severe head-ach, the pain

shooting across the orbits; the tongue was foul, and the skin much hotter than natural. The bleeding was again repeated.

Repetatur bolus cathart:

29th. Complains of general uneasiness, and of pains in all his limbs, which, from his description, resemble acute rheumatism.

Continuetur potus ut ā.

Nov. 1st. Since last report the febrile symptoms have been gradually diminishing. He still complains of general uneasiness; skin and eyes are suffused with bile.

Repetatur bolus cathart:

8th. Got out of bed to-day for the first time. The yellowness of the skin and eyes, which some days ago was very deep, begins to disappear. He has used no medicine lately except jalap and calomel, which are given to remove constipation.

Put on half diet.

REMARKS.

The surgeon of the Invincible, and assistant of the Temeraire, in this case also, did me the favour to attend at my request, and mark the effects of the abstraction of blood; they did not deny that this, as well as several other relapses that came under my care at

the hospital, and of whom *not one died*, was of the same nature as the then prevailing epidemic.

(Signed)

A. ROSS, M. D.

Surgeon, Naval Hospital, Mahon,
Nov. 8, 1811.

To Dr. Burnett.

CASES

Communicated by Mr. Boyd, Surgeon of His Majesty's Ship Repulse.

John Singleton, seaman, ætat 29.

August 6th at 11 A. M. Complained of being affected with a sense of cold along the spine, succeeded by severe head-ach, red watery appearance of the eyes, pain in the loins and epigastric region, with nausea, and inclination to vomit, accompanied with general soreness all over the limbs, particularly the calves of the legs; pulse 82, and oppressed, temperature 98; tongue white and furred, much thirst, bowels constipated. He is of a full robust habit of body, and was lately on shore, where he indulged in an excess of intemperance.

V: S: ad 3̄ xvij et capiat submur: hydrarg:
grs: x horis quartis.

7 P. M. Head-ach severe, nausea, and general restlessness; pulse 102, and rather hard; temperature 99, great thirst, bowels not moved.

Habeat enema: purgans statim et affusio tepidæ copori toto. Continuetur submur: hydrarg: applicetur hirudines no: xii temporibus.

7th. A restless night, head-ach severe, pains in the loins and epigastric region continue; pulse 120, and soft; temperature 100, tongue furred, thirst great; bowels not freely moved, stools scanty, black and foetid.

Capiat pulv: jalap 3j submur: hydrarg: grs: x statim.

Abr: caput et applicetur applicationes frigid: capiti.

7 P. M. Head-ach easier, pulse, 120, and soft; temperature 100, skin moist, thirst great, bowels moved, stools copious, liquid and black.

Affusio tepidæ corpori toto et continuetur application: frigid: capiti.

8th. A bad night, severe head-ach; occasional vomiting of bilious matter; pulse 112 and soft, temperature 100; skin moist, tongue furred and yellow, thirst great, bowels not regular, stools black and gelatinous.

Affusio tepidæ et capiat submuriat: hydrarg: grs: x horis quartis.

Applicationes frigid: capiti.

7 P. M. Head-ach not so severe, pulse 112,

temperature 100; skin moist, and has had three black foetid stools during the day, and there appears a yellow tinge of the eyes.

Continuetur medicamenta, affusio et application: frigid: ut ā.

9th. There is a deep yellow suffusion over the whole body and limbs this morning; has pain in the epigastric region, with urging to vomit; head-ach, with small black acrid stools, tinged with blood; pulse 120, and small, skin moist, tongue foul and brown, thirst great.

Continuetur submur: hydrarg: grs: x ter: die.

7 P. M. Has vomited every thing he has taken during the day; great pain at the pit of the stomach and region of the liver; has had no stool. Pulse 120 and small, temperature 98.

Habeat enema purgans et affricetur ventriculi regio, cum ungt: hydrarg: fort: camphorat: 3i per semi hora spacium.

10th. Has been delirious during the greater part of the night; pain in the epigastric region, with vomiting of a black chocolate coloured matter distresses him much; pulse irregular and small, temperature 96; skin moist, tongue foul and black, thirsty, refuses almost every thing, and what he takes is immediately rejected; stools small, black, and acrid, so as to excoriate the anus and parts adjacent.

Habeat enema emolliens et repetatur ungt: hydrarg: camphor: pro frictione ut ā.

7 P.M. Much as in the morning, only stools bloody; vomits every thing, water itself.

11th. Tossing about the whole night, great anxiety, laborious breathing; great pain upon pressure of the epigastric region; vomits a black coffee coloured matter. Pulse sometimes full, sometimes irregular, and sometimes intermittent; temperature 96, skin moist; stools pass involuntarily, and there is retention of urine, with low delirium.

Let him have a little of any thing he wishes.

7 P.M. Delirious, and will take nothing; strength sinks.

12th. Subsultus tendinum, cold clammy sweats all over the body, hiccough, hæmorrhage from the nose, involuntary stools, small intermittent pulse, &c.

At 10 A.M. he became convulsed, and shortly afterwards death terminated his labour.

Mr. Boyd adds in a note—"The cases that have proved fatal, have been so similar to the above, that it would be of no use to transcribe them."

William Barns, seaman, ætat 24.

August 6th, at 7 P.M. Complained of severe head-ach, chiefly referred to the temples, pains

in the loins, anorexia, and general lassitude over the body and limbs, with pain in the epigastric region, particularly at the pit of the stomach; pulse 88, and full; temperature 100, tongue white and furred; much thirst, bowels confined. He is of a full habit of body, and assigns no cause for the origin of these complaints.

Quam primum V: S: ad ℥xxx et postea capiat submur: hydrarg: grs: x ex syrup simplici.

7th. Has had a restless night, head-ach severe; eyes red and watery, pains of the loins and calves of the legs distressing. Pulse 100, and tense; temperature 100, tongue furred and yellow; thirst much, bowels not moved; pain at the pit of the stomach continues, with slight nausea.

Repetatur V: S: ad ℥xx et postea capiat solut: sulph: magnes: ℥ij omni bihora, nisi purgarevit.

7 P. M. Expressed much relief after the bleeding; but the head-ach has increased since the evening. Pulse 96, and firm; temperature 100, thirsty, bowels moved freely, stools black and gelatinous.

Repetatur V: S: ad ℥xx et habeat affusio frigidaë toto corpori.

8th. Has had a good night, little or no head-ach this morning; inflammatory appearance of

the eyes almost gone; pulse 70, and soft; temperature 98, tongue white and moist; thirst moderate; no stool since yesterday, but has hardly any pain at the pit of his stomach; requests something to eat.

Habeat submur: hydrarg: grs: v horis quartis et dieta antiphlogistica stricti est administrand:

7 P.M. Continues better; bowels moved twice, stools black and gelatinous.

Repetatur affusio tepidæ corpori toto.

9th. Expresses himself free from complaint, only weak. Pulse 65 and soft, temperature 94; tongue white and moist, thirst abated, bowels easy, stools yellow, and there appears a slight jaundiced tint of the albugineous coat of the eyes; appetite good.

Habeat submur: hydrarg: grs: iij ter die.

7 P.M. Continues doing well.

10th. No complaint; pulse 60 and small, temperature natural, tongue clean and moist; no thirst, bowels easy, stools yellow.

Continuetur submur: hydrarg: grs: ij bis die.

11th. Convalescent.

Infus: quassia ℥ij ter: die.

Robert Dedderman, marine, ætat 20.

August 6th. Complained of being afflicted with severe head-ach, chiefly about the bottom of the orbits, which prevents him from opening the eyelids without the utmost uneasiness; eyes exhibit an inflammatory aspect, has pains in the loins and calves of the legs, with universal lassitude over the body and limbs, accompanied with pain in the epigastric region, and inclination to vomit. Pulse 100, small and oppressed, temperature 100, tongue furred and brown; thirst great, bowels costive; he is of a full plethoric habit of body, and assigns no cause for these complaints.

Quam primum V: S: ad ℥xxx et capiat submuriat: hydrarg: grs: viij.

Pulv: jalap: grs: xx ft: bolus.

7 P. M. Experienced much relief from the bleeding, but has now a violent return of head-ach. Pulse rose after venesection; temperature 102; bowels moved thrice; stools black and fœtid.

Repetatur V: S: ad ℥xx et postea habeat affusio tepidæ toto corpori.

7th. Has had a restless night; head-ach not severe; eyes not so red; pain in the epigastric region continues, with inclination to vomit. Pulse 96 and soft, temperature 98, tongue furred

and brown ; thirst much, no stool since yesterday.

Applicetur hirudines no: xii temporibus et capiat pulv: jalap: grs: xv.

Submuriat: hydrarg: grs: x ft: bolus ex syrup simplici.

7 P. M. Experienced much relief from the leeches, little or no head-ach ; pulse 90 and soft, temperature 98, thirsty ; bowels moved freely, stools large, black and fœtid.

Affusio tepidæ.

8th. A good night, no head-ach ; inflammatory aspect of the eyes almost gone ; pain in the epigastric region, and inclination to vomit removed. Pulse 70 and soft ; temperature 94 ; tongue white, but not furred ; thirst abated ; bowels easy, stools yellow, and there appears a slight yellowish tint of the eyes.

Capiat submuriat: hydrarg: grs: iij ter die.

7 P. M. No increase of symptoms.

9th. A good night, no head-ach ; eyes a little jaundiced ; pulse 60 and equal, temperature natural ; tongue moist and white, no thirst, bowels easy.

Capiat submuriat: hydrarg: grs: iij mane nocteque.

10th, 11th, 12th. Continued progressively getting better, and is now convalescent.

CASES

*Communicated by Mr. Brien, Surgeon
of the Kent.*

John Seymour, marine, aged 22 years; complained on the 14th of September of cold shivering, succeeded by a hot and dry skin, pain of the head and back, general soreness, purging and griping.

Calomel: grs: vi pulv: jalap: grs: xx, which operated often.

Vespere. Pulv: antimon: grs: v every four hours.

15th. Three stools last night; sore throat, general soreness, frequent pulse, a preternaturally warm skin, with profuse perspiration.

Calomel: grs: ij pulv: antimon: grs: iij sexta q: q: hora.

Vespere. Regular stools.

Repetatur.

16th. Often purged, griping with general soreness; general debility, a small and frequent pulse, cool skin, with perspiration.

Mist: camphor: cum tinct: opii gutt: x quarta quaque hora.

Vespere. The purging relieved, the pulse fuller and less frequent.

Pulv: antimon: grs: v opium grs: i h: s: et
bis nocte sine opium.

17th. The skin colder than natural, profuse perspiration, moist and clean tongue; a very frequent pulse; some propensity to sleep, with deep inspiration.

Emplast: cantharid: inter scapulas et mist:
camphoræ.

18th. Moist mouth, and clean tongue, cool skin, with profuse perspiration; the blister rose well.

Mist: cort: peruv: ē vin: rubrum.

Vespere. Propensity to sleep returned, perspiration without intermission.

Mist: camphor:

19th. Nearly in the same state, preternaturally warm skin.

Ungt: hydrarg: fort: femoribus 3j quarta
quaque hora.

Mist: cort: peruv: ē vin: rubrum.

20th. The ointment occasioned pustules on the thighs from its stimulus.

Repetatur ungt: et mist: cort:

21st. Regular stools, the pulse frequent, and the tongue became furred, with a black crust about the mouth.

Repetatur ungt: et vin: rubrum.

22d. The breathing became very deep, and at long intervals, and soon ceased.

Stephen Prevost, marine, aged 56 years; complained on the 10th of September of cold chills, succeeded by a hot and dry skin; pains of the head and loins; a quick and small pulse, bowels costive.

Calomel grs: viii pulv: jalap: grs: xx.

Vespere. No stools.

Repetatur calomel: et antimon:*

11th. Had three stools, the skin hot and dry, dry tongue, general soreness, and severe head-ach; the pulse weak, and easily compressible; not to be distinguished unless the finger were applied very tightly.

Took two grains of calomel, and three of antimonial powder every four hours.

12th. Symptoms remain the same.

Repetatur.

Vespere. Cool skin, very weak pulse, regular stools.

Mist: cort: peruv: every four hours, with a proportion of red wine.

* It does not appear that antimony had before been ordered, but the prescription is transcribed.

13th. Frequent purging, great debility, a very small, frequent, and soft pulse; the skin dry, tongue furred, foetid breath.

The mouth and tongue were kept clean with nitric acid, water and sugar.

Ipecac: grs: v every four hours.

Vespere. The purging abated, skin cool and moist, pulse weak and soft, sore throat.

Repetatur cort:

14th. Regular stools, very small and weak pulse, foetid breath; black mucous about the mouth, and on the tongue.

Repetatur cort: c̄ vin: rubrum pro re nata.

15th. Symptoms inclining to insensibility.

Emplast: cantharid: ad femor: et vin: rubrum.

16th. Repetatur.

17th. The pulse almost imperceptible.

Repetatur.

18th. This patient continued the same; the pulse was lost in the arm, and he expired.

James Charlton, seaman, aged 41; complained on the 14th of September of pain of the head and back; dry skin, some purging and griping; thirst, the pulse small and frequent.

Calomel: grs: vi pulv: jalap: grs: xx.

Vespere. No stool.

Repetatur calomel: grs: viij, which operated three times in the night.

15th. The skin preternaturally warm ; the pulse still frequent and fuller ; moisture on the skin, pains of the extremities, head better.

Calomel: grs: ij pulv: antimon: grs: iij.

He expired in about an hour.

CASES

*Communicated by Mr. Rudland, Surgeon of
His Majesty's Ship Bombay.*

June 12th. John Grant, marine, aged 24 years, was attacked yesterday morning with cold rigors, followed by heat, thirst, and anxiety ; sickness at the stomach, and severe retching, without bringing up any thing. He did not apply for assistance, and in some measure recovered from this indisposition. In the morning he had a slight return, but did not then complain ; he continued getting worse till the afternoon, when the symptoms (upon his being brought to the sick-birth) were, severe pain of the head, great lassitude, heat, thirst, and anxiety ; hot and dry skin, white tongue, flushed face, and watery eyes ; griping pains in the bowels, and frequent stools, which

have a dark bilious appearance. Pulse 130 and full.

V: sectio ad § xxxiv.

R Calomel: grs: v.

Pulv: jalap: grs: xv syrup q: s: ft: bolus stat: sumend:

R Solut: sulph: magnes: § i ess: menth: pip: gutt: aliquot secunda hora sumend:

13th. His head was very much relieved by the bleeding for several hours, and he has not vomited since. The cathartic operated very freely, and the griping is much better; the retching is much amended, but he still feels considerable nausea, and, about an hour since, had a return of pyrexia, with pain in the head, quick and full pulse, &c.

Repetatur V: S: ad § xxiv.

Haust: salin:

Vespere. He again experienced instant relief from the bleeding, his pulse decreasing in frequency and hardness; he has had several stools during the day, and perspired very freely.

At 4 A. M. he had an increase of pyrexia, accompanied by pain in the head and nausea; heat, anxiety, thirst, &c. Pulse 120, and still full; skin hot and dry.

Repetatur V: S: ad § xx.

Repetatur haust: salin: pro re nata.

Repetatur haust: cathart: ut .

14th. Much relieved by the bleeding, and passed a pretty good night, has no head-ach; thirst more moderate, had several stools during the night; pulse soft and 88.

Repetatur haust: salin: ut ā.

Vespere. Has continued free from pain and sickness all day, and has no obvious increase of fever this evening.

Repetatur haust: salin: ut ā.

15th. He passed a good night, and appears free from pyrexia; his bowels are open, and griping quite gone; pulse 84, soft and regular; tongue white, no thirst.

Repetatur haust: salin: ut ā.

Vespere. At 5 P.M. he complained of having considerable pain in the head and back, the former shooting across the temples, and accompanied by vertigo; pulse 110 and full, face flushed, skin hot and dry. He was so sensible of the relief he had before *instantly* obtained by the loss of blood, that he now earnestly requested to be bled, if there were no objections to it.

Repetatur V: S: ad 3xx.

Repetatur bolus cathart: ut ā.

Repetatur haust: salin: ut ā.

16th. His head was much relieved by the bleeding; he passed a good night, during which he perspired very freely; he had several copious stools from the bolus, and now only complains

of weakness. Pulse soft and 88, tongue moist, skin natural.

Continuetur haust: salin: ut ā.

Vespere. He continues free from fever, pulse 84, soft and regular; very little thirst, bowels open.

Continuetur haust: salin: ut ā.

17th. Passed a good night, has no complaint whatever; pulse, tongue, and skin natural.

Omittentur haust: salin:.

R Infus: quassia ʒiʒ.

Ess: M: pip: gutt: aliquot ter in die sumend:
Half diet.

Vespere. No alteration.

Continuetur ut ā.

18th. Has no appearance of disease, except having a less florid countenance than usual. At his own request he returned to his duty, which was that of servant to the captain of marines.

23d June. Patrick Ryan, seaman, aged 30 years, was attacked by cold rigors, followed by intense heat; pain in the head, delirium, thirst, and anxiety, hot and dry skin, tongue white, with considerable thirst; flushed face and watery eyes, which are tinged yellow; full and throbbing pulse, and beating at the rate of 90; increased action of the

temporal arteries; griping pain in the bowles, sickness and vomiting, with frequent bilious stools.

V: sectio ad § xxvi.

Half an hour afterwards he took a bolus, composed of ten grains of calomel and fifteen of jalap, and he was ordered an ounce of the solution of sulphat of magnesia every hour until freely purged.

Vespere. He was relieved for several hours by the bleeding, but has still great pain of the head, nausea, and thirst; the cathartics operated freely. Pulse 98 and full, skin of a burning heat.

Habeat haust: salin: secund: q: q: hora.

Repetatur V: sectio ad § xxxiv.

24th. He passed a very good night; was instantly relieved by the bleeding; he became calm and collected, with a general diaphoresis; the pulse became soft and regular, and the thirst continued to decrease; during the first part of the night he had several copious stools of a dark appearance, but without any griping; pulse 88 and soft; has little or no pain in the head, or nausea.

Vespere. Pulse 84; has no return of pyrexia, and appears free from complaint, except a little occasional griping; little or no thirst, skin moist, and very little above its natural temperature.

Repetatur haust: cathart: ut ā.

25th. Had several stools from the cathartic ; pulse, skin, and tongue natural, no pain, sickness, or thirst.

Omittentur haust: salin:

Habeat infus: quassia ʒiſs ter in die.

Half diet, and no wine.

Vespere. Pulse 84, no return of pyrexia ; bowels open.

Continuetur infus: quassia.

26th. Passed a good night ; pulse 82, skin, tongue, and bowels natural.

Continuetur medicamenta ut ā.

Full diet, half pint of wine.

27th. Continues mending ; pulse 80, bowels open.

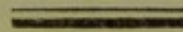
Continuetur medicamenta ut ā.

28th. Discharged to duty.

PART II.



*Principiis obsta, sero medicina paratur cum mala perlongas
convaluere moras.—OVID.*



FACTS AND OBSERVATIONS
ILLUSTRATIVE OF THE
NATURE, SYMPTOMS, & TREATMENT
OF
Fever in the Mediterranean.

IN the year 1799, while employed in the Goliath of 74 guns, in the blockade of Malta, the ship's company were attacked with a Fever, similar to one then prevalent in the island. Our boats had been employed in watering at Marsa Scala, a small harbour to the S. E. of La Valette, when, from blowing weather coming on, a boat's crew, with her officer, were left on shore all night. A few days after this, the officer was attacked with fever, and several of the boat's crew soon followed. It extended to about forty of the ship's company; and two midshipmen, who were also employed in the boats, or had been on shore on leave, were amongst the number taken ill.

The most prominent symptoms were nausea, and in some vomiting, succeeded by head-ach, flushed face, full and frequent pulse, thirst, and white tongue, and, in most cases, delirium; in two or three instances the parotids suppurated.

These patients were liberally evacuated on their complaining, and the bleeding repeated according to the urgency of the symptoms; an open state of the bowels was preserved, and a mild diaphoresis kept up; blisters were applied to the nape of the neck and forehead, and a strict antiphlogistic regimen pursued. This soon produced a cessation of pyrexia, when tonics and a well regulated diet completed the cure.

This circumstance occurred in the month of May 1799, and the sick were landed and placed in a large castle, near St. Paul's Bay, under my care, where the whole recovered. During the remainder of the summer we were mostly employed at Naples, under the command of Lord Nelson; and many sporadic cases of Fever occurred, which were successfully treated by the early use of evacuations. In the winter, I proceeded in the Goliath to England.

I returned to the Mediterranean in the summer of 1800, and while lying in Port Mahon, with the Expedition under the command of Vice Admiral Lord Keith, and General Sir Ralph Abercrombie, in the months of July and August,

many of the ships' companies were attacked with Fever, and amongst the rest, the *Diadem*, of which ship I was then surgeon. There were about forty men taken ill with fever in the *Diadem*, and so speedily was a remission procured by the free use of the lancet, that I had only occasion to send two or three to the Hospital. In a few instances, they were first attacked with cholera morbus; and when the evacuations ceased, the true nature of the disease became manifest. In a few, the disease appeared to be entirely carried off by the vomiting and purging. Its most general manner of attack was by shivering or chilliness, accompanied or succeeded by prostration of strength, and nausea; re-action soon took place, when excruciating head-ach came on, with pain or uneasiness about the epigastric region, and sometimes bilious vomiting; pains in the loins, limbs, and calves of the legs, white tongue and thirst, pulse full and strong, and in many cases considerable constipation. They were all, except two cases, bled freely in the beginning, purged, and took saline julep; the bowels were kept open, blisters to remove local pain applied, and they had, occasionally, small doses of calomel and pulv: antimonialis; *

* In several of the first cases emetics were given, which I had afterwards occasion to regret.

immersion of the feet in warm water was frequently practised, and in some cases the head was sponged and kept cool by vinegar and water, repeatedly applied. The febrile paroxysm was soon cut short, in all but three cases, two of which were not bled, from some supposed symptoms of debility; they had yellow suffusion, and a most protracted recovery: the third had extreme irritability of stomach, which I endeavoured in vain to allay. During a forenoon I was absent on duty, my assistant gave him an emetic of tartarised antimony; the vomiting increased, and never afterwards for a moment left him; he passed blood by the nose, mouth, and anus, and finally died at the Hospital. The others recovered rapidly.

On looking over the notes I took of the whole, I find that those who were bled most liberally in the beginning, recovered soonest, and in these cases the yellow suffusion was prevented.

Shortly after this I joined the *Athenien* 64; we careened and fitted at Malta in the hottest season of the year, the thermometer in the middle of the day, in the Dock-yard and neighbourhood, often standing in the shade from 85 to 90. Our ship's company were necessarily much exposed to the sun, though they were not allowed to work for some hours in the middle of

the day; and we had many attacks of fever, attended by great local determination; but by a proper use of the lancet in the *early stage*, joined to purgatives, they all speedily recovered: none died, nor was one sent to the Hospital during two years I was Surgeon of that ship. Except in cases arising from causes such as are just mentioned, this ship, which was built at Malta, always continued remarkably healthy.

In May 1810, I had the honour of being appointed Physician to the Mediterranean Fleet. When I arrived at Cadiz in the month of September following, I found considerable alarm prevailing in the squadron under the command of Sir Richard Keats, on account of a fever then existing on board the *Achille*, which was reported to Sir Richard, *to be the yellow fever of the West Indies, and of a very malignant and infectious nature*. Two had died, several were very ill, and some had a yellow suffusion over the whole body. The ship was preparing to go to sea in consequence, and the sick were placed in a transport, moored out from the squadron. I immediately received Sir Richard's directions to visit and report the nature of the malady. The symptoms were, in general, similar to those mentioned as occurring at Mahon in 1800; and, in some patients, very considerable determination to the thoracic viscera

was present. Emetics, bark, camphor, wine, and opium, had been employed in the treatment of these patients, which I directed to be laid aside, and in cases where it was judged necessary, the lancet was had recourse to and used freely, and also purgatives: this soon produced a change in the features of the disease, and the whole, except one man, speedily recovered. This man was a very drunken character, and had been ill four days before I saw him; he had severe pain in the breast, with great anxiety, and constant vomiting of a dark bilious matter; his head-ach was great, with full pulse, foul tongue, and hurried respiration, and the yellow suffusion had begun to make its appearance in his eyes, and slightly around the neck. He had taken an emetic, and subsequently, bark, wine, camphor and opium: he was blooded, and took cathartic medicines with relief; but the disease was too far advanced to pursue that active line of practice which had been found so eminently successful, when employed in the early stage of the fevers of this country. The body was examined after death, by Mr. Williams, surgeon of the ship, in the presence of Mr. Risk, surgeon of the flag ship, and myself. The thoracic viscera generally, bore high marks of inflammation; the pericardium greatly so, being much thickened, and adhering through its whole extent

to the heart, from which it was with difficulty separated: there were numerous adhesions of the lungs to the pleura costalis, and effusion had taken place into the left lobe. The stomach, particularly towards its cardiac opening, was greatly inflamed.

On my arrival at Gibraltar, in September, I understood the Garrison to be very healthy,* and in the Naval Hospital there was not a case of fever. The weather was very warm, the thermometer, in the shade, ranging from 75 to 80. About the 18th or 19th, a deluge of rain fell, with thunder and lightning, which continued nearly three days without ceasing. *The water poured in torrents from the upper parts of the rock, bringing with it the putrid animal and vegetable matters, which are to be found in such abundance in most parts of the garrison.* In many places there was no outlet for this water, or rather the outlets were not pervious: in front of the houses in Rosea Bay, there was at one time nearly three feet water, and it ran out of the embrasures. *The weather became very warm after the rain had fallen, and easterly winds were for some time prevalent.*

* I heard, that some severe cases of fever, [amongst the bakers employed in making bread for the army, about this time took place.

About the 13th or 14th of September, Commodore Penrose had arrived from England, and hoisted his broad pendant in the San Juan; the Commodore brought with him about three hundred men, who were sent on board the San Juan for the purpose of manning a flotilla then forming. On the 28th, 29th, and 30th, it was reported by letter to me, (for I had proceeded to the Fleet) that twenty-six men were received into the Naval Hospital labouring under fever, and several more followed them on the succeeding days. The first symptoms of these men, were prostration of strength, succeeded by rigors; in some cases, accompanied or preceded by cynanche tonsillaris, great head-ach, nausea, and irritability of stomach, frequent pulse, and, as the disease advanced, the yellow suffusion, in many cases, manifested itself. The treatment of these patients was by purgatives, calomel, blisters to the region of the stomach, and gentle diaphoretics; in the severer cases, the cold affusion was attended with advantage; three were bled once; four out of the whole died, neither of whom had been bled. In the case of one who was examined after death, and in whom the morbid affection of the head was severe, marks of high inflammation of the brain were detected, the vessels on the surface being exceedingly turgid, and effusion to a very considerable ex-

tent, had taken place in the ventricles: the gall-bladder was full of a dark inspissated substance, like pitch.

I joined the fleet in the beginning of October, and found them in Mahon, completing their water and provisions, and the weather was still very warm. The ships worked night and day to get on board their supplies, and the men were necessarily much exposed to the sun in the day, and to the dews at night: this, added to intemperance, occasioned many severe attacks of fever and cholera morbus; there were also, in some of the ships, many attacked with diarrhœa. The fever had the usual symptoms of the bilious remittent, and being treated by a liberal use of the lancet and purgatives, in its early stage, few cases proved fatal, and the ships soon returned (on going to sea) to their usual good health. Inflammatory affections of the abdominal viscera, with irritability of stomach were frequent, and in those cases the warm-bath was found to give much relief.

The health of the fleet being restored, I received the orders of the Commander in Chief, to proceed to the eastward, and examine into the state of health of the ships, and also into the hospital departments. In Sicily, I found the ships in general healthy; but, I was informed by Dr. Ross, Surgeon of the Warrior, that

during the summer months, while employed in the Faro of Messina, several of his men had been attacked with fever. Dr. Ross soon saw the inefficacy of the usual mode of treating fever, as applied to the febrile diseases of this country; *and with a liberality and candour well worthy of imitation*, had recourse to a different line of practice, which he saw pursued on shore, with great success, by the Medical Officers of the army. Dr. Ross, in a statement accompanied by some cases with which he has favoured me, observes, “ At the time the seven cases, “ now sent to you, occurred, the Warrior’s “ ship’s company were much exposed to harassing duty in the Faro of Messina; a great “ number of them were employed in gun boats, “ which were continually attacking the enemy’s “ batteries, or annoying their flotilla on the “ coast of Calabria. Others, besides the fatiguing duty they had to perform during the “ day under a scorching sun, were also exposed “ in the guard boats to the heavy dews of the “ night. To such causes the origin of the “ fever, which then prevailed in His Majesty’s “ ship Warrior, may with justice be attributed.

“ In the detail of the cases, you will observe, “ that debility is mentioned generally as the “ most prominent feature; that, also, in the

“ whole of them, there existed an evident deter-
“ mination to the head, lungs, or some other
“ viscus, as is sufficiently indicated by the exis-
“ tence of pain in some particular part.

“ It was these deceitful marks of debility
“ which prevented my having recourse to ab-
“ straction of blood, a mode of practice from
“ which, at this period, I saw the best effects
“ among the patients labouring under the same
“ fever at the general hospital of Messina, and
“ treated with the greatest success by my friends,
“ Dr. Calvert and Dr. Irvine, physicians to the
“ forces. Three of the seven cases were sent to
“ the military hospital under their care; the first,
“ William Parker, marine, was not bled, for the
“ reason that the disease was too far advanced
“ previous to his being sent. The second, J.
“ Pacal, was bled, but died the same day he was
“ sent on shore. The other case, Robert Maha-
“ gan, who came under Dr. Irvine's care on the
“ second day of his illness, was cured by copious
“ and repeated abstractions of blood, which he
“ underwent, particularly from the temporal ar-
“ tery. The convalescence was much more ra-
“ pid, and debility far less, than in those who
“ had not experienced this mode of treatment.”

Nothing very particular presented itself at
Malta for some time; but the Eagle, of 74 guns,
having arrived to careen, her men were quar-

tered in a barrack, nearly a mile from the ship, where they had easy access to spirits and wine, and committed the usual excesses of sailors when on shore. The effects of this were soon visible, for about the middle of December a fever made its appearance amongst them, and ultimately extended to nearly sixty of her men. The surgeon considered it at first to be purely of a typhoid nature; but after some conversation with him, and he having seen the salutary effects of evacuations in several cases, which were sent under my friend Mr. Allen's care at the hospital, he readily came into our views: a different mode of practice was pursued; the whole sent to the hospital under Mr. Allen's care, recovered quickly; and, what was very satisfactory, without the smallest organic disease being left. In this fever, local affections were very severe and obvious. In a few, the brain: in some the abdominal viscera; and in general the lungs, were the parts most affected. In several cases there was great tension of the abdomen. The other symptoms were such as usually mark the fevers in this country; but the disease being cut short by early evacuations, suffusion of bile appeared but in few cases.

Mr. Allen, surgeon of the Naval Hospital at Malta, in his report to me for the month of December, 1810, says,—“ During this month

“several patients have been received from the
“Eagle afflicted with fever, and the symptoms
“are highly inflammatory; the brain, stomach,
“liver, thoracic and abdominal viscera, are par-
“ticularly affected. The pulse is full and fre-
“quent, varying from 96 to 120; skin hot and
“dry, and eyes suffused. Early bleeding, re-
“peated whilst the symptoms indicated its neces-
“sity, frequently carried to the extent of six or
“seven pounds; open bowels; blisters to the
“epigastric region; the patient taking the aq:
“ammon: acetat: every three hours, and ob-
“serving strictly the antiphlogistic regimen, we
“have found the most successful method of cure,
“and in a few days the disease was terminated.
“By this plan of treatment, the yellow suffusion
“which takes place in this fever (if neglected),
“was completely checked; which I attribute
“entirely to the early bleeding subduing the in-
“flammatory state.”

In the report for the month of January, Mr. Allen observes,—“The fever patients received
“from the Eagle, are now on recovery, and it
“has nearly disappeared among her ship’s com-
“pany; the symptoms of those lately brought to
“the hospital, are considerably milder, but still
“retain the inflammatory character.”

During the prevalence of this fever amongst the Eagle’s men, several cases strikingly demonstra-

tive of the excellent effects of early blood-letting occurred ; amongst the rest two of the officers. To the first I was called about midnight ; he is aged about 36, rather of a spare habit. I found him with excruciating head-ach, chiefly referred to the forehead and temples ; pains in his limbs and back, particularly the calves of the legs ; eyes suffused, tongue white and furred, much thirst, skin burning hot, and the sensorium greatly disturbed. This patient had been indisposed the whole of the afternoon ; but about seven in the evening he was seized with rigours, succeeded by the beforementioned symptoms, and had at first some degree of nausea. Twenty-six ounces of blood were immediately taken from the arm, and a cathartic bolus given ; he was instantly relieved by the bleeding. During the remainder of the night he was restless, and the bandage came off the arm, by which means ten or twelve ounces of blood were lost. I visited my patient again at eight in the morning, and found him somewhat better, but not materially so. I ordered the cathartic to be repeated, and twenty-four ounces of blood were again drawn from the arm. The pulse after this sank gradually to its natural standard, and the operation of the cathartic completed the cure ; *at mid-day he had not a symptom of acute disease left*, and it was with difficulty I could keep him within doors

three or four days, at the end of which time he observed,—“that he was by no means so weak “as he had often been after a common cold.”

In the second case I did not see the patient till he had been ill for two or three days. I directed him to be sent to the hospital, where, by repeated bleedings, both general and local, he was a convalescent on the third day.

The *Alceste* frigate, and *Scout* sloop, had a good many of their men attacked with the same disease; in the *Scout*, attended with very considerable affection of the abdominal viscera, and frequent stools; but the early use of the lancet, joined to purgatives, and gentle diaphoretics, together with the use of the warm bath in the severer cases, soon subdued the complaint. The men of both these ships had been paid prize money, and having leave to go on shore, indulged as usual in excesses.

When I rejoined the fleet, in the latter end of February, I found them in Mahon, in the highest possible state of health; a few had suffered from pneumonia, but no epidemic of any kind had visited them.

During my absence from the fleet, the *Leviathan*, 74, had proceeded to Gibraltar to refit, and calling at Carthagená, took under her convoy some transports with deserters from the French army. On their passage a fever made

its appearance among these men in the transports. Mr. Stilon, assistant surgeon of the *Leviathan*, was sent to their assistance, who states, in the report he has made to me of this fever, that,—

“ The general symptoms were shiverings, pains in
“ the head, back, and limbs, with inclination
“ to vomit; pulse about 100, but weak. On
“ the second day the head-ach was worse, and
“ pulse still remained weak. Some complained
“ of severe pain in the abdomen, with frequent
“ stools and tenesmus; these last were bled to
“ twenty-four ounces, and they took an ounce
“ of the sulphate of magnesia dissolved in wa-
“ ter. To those who had no pain in the abdo-
“ men, I gave an emetic at the beginning; but
“ not finding them relieved by it, and observing
“ that some were much better after a plentiful
“ hæmorrhage from the nose, I determined to
“ use the lancet in these cases also, from which
“ I had been deterred by the weakness of the
“ pulse, and the fatigue and privations in food
“ and clothes, which they had lately under-
“ gone. I immediately had recourse to blood-
“ letting, with purgatives, taking at first twenty-
“ four ounces, which I repeated as long as
“ the symptoms required it; generally on the
“ third bleeding the pulse became stronger, and
“ the whole of the symptoms better. I have to
“ regret the loss of three men in the *Leeds*

“ transport, two in the Swift, and four in the
“ Navigator, being precluded visiting these ships
“ by the severity of the weather for four days,
“ When we arrived at Gibraltar on the 15th of
“ December, there were on board the different
“ transports ninety-eight patients, three of whom
“ died the day after. On the 18th I was myself
“ attacked with a complaint of the same nature,
“ and could no longer visit the sick. I have
“ been told that a great many died ; but none of
“ those who were bled in the beginning of their
“ complaint.”

While the Leviathan lay in the Mole, a considerable number of her men were attacked with fever, attended with inflammation of the abdominal viscera, and frequent bilious stools ; several died, but on their having recourse to the use of the lancet and purgatives, every succeeding case did well.

The fleet resumed their station off Toulon in the month of April, and continued for some time to enjoy the best possible health ; the Kent alone had any thing like fever amongst her people. She was one of our advanced ships, so that it was not in my power to visit her for some time. Several cases of fever, attended with bilious vomitings, and yellow suffusion, had occurred on board of her ; one or two had died, and the same number had become hectic. The disease had

been treated by the use of emetics, bark, camphor, and wine. In the beginning of the month of July, the attacks became more numerous, and the Kent being now with the fleet, I had an opportunity frequently to visit her sick. I found the fever to assume all the usual appearances of the bilious remittent; and the use of the before-mentioned medicines being laid aside, and early evacuations, both by the lancet and purgatives, substituted, the whole of the succeeding cases, to the amount of thirty-five, speedily got well. I left the fleet off Toulon in the middle of July (to proceed to Gibraltar) in excellent health; in sixteen sail of the line, and four frigates, only twelve men being in bed, and two-thirds of that number accidents.

During my stay at Gibraltar, I made particular enquiry respecting the nature of the fever which had prevailed there in the autumn and winter preceding; and, from the accounts I received, I have every reason to think it to have been the epidemic of the season, the bilious remittent fever, as it has been called.

I was recalled to the fleet in the latter end of August, but had no opportunity of joining before October, when I found that fever had been very prevalent in the ships which had recently been in Mahon, and that the Temeraire and Invincible, then lying there, had suffered much,

and disease still continued amongst them. The Kent, Centaur, Repulse, and Warspite, were the ships chiefly affected. In the Kent nine or ten men had died; in the Centaur, five or six; five in the Repulse; and one in the Warspite.

In the Kent, the treatment was by purgatives, antimony, and calomel in the beginning; mercurial inunction, camphorated julep, æther, and bark, with red wine, towards the termination.

In the Centaur, Mr. Lawson, who was surgeon of that ship, when the epidemic first commenced, states his having met with great success by the use of early evacuations.

In the Repulse, Mr. Boyd reports, that he had been very successful in combating it by the early use of the lancet and purgatives; cold and tepid affusion he likewise found serviceable as auxiliaries; but from the temperature of the body, the former was not applicable to many of the cases. In some cases, copious and sudden affusion produced a diminution of febrile heat, sweats, and a remission. In several of the patients, he mentions calomel, as having had very excellent effects. In one case of great danger, benefit appeared to be derived from the inunction of mercurial ointment on the epigastric region.

Mr. M'Leod, in his account of the fever, as it occurred on board the Warspite, says—"The first symptoms were, for the most part, nausea,

“ head-ach, pain in the back and limbs, great
“ anxiety, and prostration of strength ; skin dry,
“ and of a pungent heat, febrile pulse, and very
“ commonly a vomiting of bilious matter. The
“ tongue, in the first stage, white ; but as the
“ disease advanced, yellow, or brown, and ultimately covered with a black crust ; the eyes
“ and skin assumed a yellow tinge ; the urine,
“ and even the saliva, were of a bilious hue. In
“ a great majority of cases, swelling and ulceration of the tonsils took place ; topical inflammations, both erysipelatus and phlegmonous,
“ ending in abscesses, were common, and troublesome, Singultus occurred in several, and
“ petechiæ also appeared in one or two cases.
“ Irritability of stomach was in some great, but
“ in general not so much as is usual in this kind
“ of fever. The delirium has commonly not
“ been of the furious sort, but rather a sullenness and stupor, with great aversion to food
“ and medicine ; and, in this state, passing their
“ fæces and urine involuntarily.” Mr. M^cLeod then goes on to mention, that he treated this fever with great success by the use of cold affusion and purgatives ; in some cases, small bleedings. In the latter cases which occurred, he, by my advice, employed the lancet a great deal more freely, after which he had no more abscesses, or erysipelatus inflammation, and the recovery was much hastened.

The same kind of fever had prevailed in a few of the ships the preceding summer ; the Leviathan was one of the number, and Mr. Griffiths, the surgeon, in an interesting and valuable report he has made to me on the occasion, observes,—“ It is necessary to state, that the Leviathan put into Port Mahon on the 4th, and sailed from thence on the 18th of August following ; during this period the crew were necessarily obliged to work severely in refitting the ship, under a temperature, varying from 78 to 82 degrees. It was also the daily practice to send a party of marines on shore, for the purpose of brooming. The disease, generally preceded by costiveness, in most instances commenced with lipothimia, when the victims suddenly fell down with a giddiness, and the pulse could scarcely be felt. This state was of short duration, and was succeeded by horripilation, though the skin to the touch was intensely hot ; pain in the fore part of the head, and throbbing of the temporal and carotid arteries ; while the pulse at the wrist had a wiry smallness, and was not particularly accelerated. In a few hours the eyes appeared suffused, with turgescence of their vessels ; tongue white, excessive thirst, and great anxiety : these were the symptoms with which they were attacked primarily. Those who did not ap-

“ ply till the second or third day from the attack,
“ exhibited a yellow suffused state of the eyes,
“ which soon spread to every other part of the
“ body; they had head-ach, brown furred
“ tongue, dulness of intellect, and were with
“ difficulty induced to answer questions put to
“ them; they had great prostration of strength,
“ and pains in various parts. On the fifth day,
“ dysuria was great in some, and complete sup-
“ pression of urine in others; then a coma, or
“ rather a carus supervened. If the disease was
“ not followed by a remission on the seventh or
“ ninth day, it put on the greatest malignity;
“ and in two cases that terminated fatally, they
“ died on the ninth. Eight others underwent
“ the violent form of the disease; were deeply
“ tinged with bilious suffusion; were all deli-
“ rious; had a favourable crisis on the 9th, 11th,
“ and 14th days, and finally recovered after a
“ very tedious convalescence.

“ Never having before observed this fever,
“ and dreading the debility that was apparent in
“ the above cited cases, I trusted the cure at the
“ commencement to emetics, eccoprotic, and
“ diaphoretic medicines; and to the employment
“ of blisters, bark, wine, opium, and spruce in the
“ advanced period; and it was not till observing
“ in one violent and protracted case, the imme-
“ diate relief from head-ach, and a very evident

“ remission in the fever, obtained from a very
“ copious and repeated epistaxis, that I began the
“ use of the lancet. In about forty subsequent
“ cases, which had all primarily the same set
“ of symptoms (differing only in the deviation
“ induced by idiosyncrasy) blood was drawn,
“ and in some to a great extent, with decided
“ advantage; and but for this evacuation, I am
“ confident the fever would have gone through
“ all the stages it did in the first ten affected.
“ By blood-letting and purgatives, a remission
“ was generally obtained on the third, and the
“ febrile state rarely extended to the fifth day.
“ In some, the relief produced by the evacuation
“ of eighteen or twenty ounces of blood, was
“ immediate, and many were discharged to duty
“ within twenty-four hours of the attack.

“ My observations on the causes of this fever
“ already stated, occurred to me only when the
“ effects of evacuations were manifest. In the
“ first ten men no blood was evacuated; in con-
“ sequence the fever progressively advanced,
“ marked with symptoms of malignity and pu-
“ trescence, the result of high excitement during
“ the synochal period of the disease. In the suc-
“ ceeding forty cases, where blood was drawn,
“ the complaint was extinguished on or before
“ the fifth day, and no very bad symptoms ap-
“ peared.”

But, to return to the fever of 1811 :—the ships already mentioned had again proceeded to sea,* and their health was soon restored.

The *Temeraire* and *Invincible* still remained in harbour, and suffered so much from the disease, as to render them totally ineffective for several months. The first account I received of this fever, was a very interesting one from my friend, Dr. Ross, who was a passenger on board the *Temeraire*, in Mahon, waiting to join his own ship; and is as follows :

“ The fever, as I have witnessed it in the trans-
“ ports, is ushered in by rigours, succeeded by
“ heat of skin, violent head-ach; in some very
“ marked determination to the brain, such as
“ redness of the eyes; while in others, who had
“ not this exterior mark of inflammation, the
“ patient complained of a weight in his head,
“ and severe pain about the orbits. In most of
“ them there was considerable irritability of sto-
“ mach; but I did not witness the black vomit-
“ ing, except in one case,† the mate of the *St.*
“ *Andrew* transport, who died about the four-
“ teenth day; owing to the negligence of his

* The *Repulse*, *Kent*, *Centaur*, and *Warspite*.

† The *black vomit*, though a frequent, is not an uniform symptom in the fevers of the Mediterranean, or even of the West Indies.

“ attendants, I could not succeed in seeing his
“ stools, which they stated to be black, very fœtid,
“ and bloody: nor could I ascertain, during the
“ latter stage of his illness, whether he voided
“ urine, a suppression of which, I believe gene-
“ rally takes place previous to the fatal termina-
“ tion of the yellow fever. For about three
“ days previous to the death of the mate of the
“ St. Andrew, he was affected with constant
“ singultus, and his skin began to assume a
“ much deeper yellow hue, symptoms of which
“ had existed several days before he came under
“ my care; delirium then also took place, and a
“ few hours previous to death, hæmorrhage
“ from the nose.

“ Though I did not witness this case at its
“ commencement, I am particular in endeavour-
“ ing to describe it to you, from a conviction of
“ its similarity to the other fatal cases which
“ have occurred on board the Temeraire and
“ Invincible, an account of which you will of
“ course receive from the surgeons of these
“ ships.

“ On my coming into the Temeraire, Mr. Mor-
“ gan invited me to go and see his patients, a
“ number of whom were labouring under violent
“ head-ach, and difficult respiration. I most de-
“ cidedly advised him to bleed, and that profusely
“ too, without delay; a mode of practice which,

“ though averse to it at first, he afterwards, *in a*
“ *few cases, in some measure adopted*; and the
“ good effects of which, when employed early,
“ were too apparent not to strike conviction.
“ Mr. Morgan’s patients were, soon after I first
“ saw them, sent to the hospital, and I had not
“ an opportunity of witnessing the further pro-
“ gress of the disease, *which in a number, in-*
“ *deed generally, was of a mild nature.* Mr.
“ Morgan’s practice seemed to me to consist
“ chiefly in the use of calomel and antimony,
“ four grains of the former and three of the lat-
“ ter every fourth hour. The Temeraire has
“ now (25th of September) lost about seven men,
“ and the Invincible about the same number;
“ but, from what I can learn, there are at least
“ twenty dangerously ill at the hospital. Out of
“ between twenty and thirty ill in the transports,
“ three, whose blood I have not been sparing
“ of, are still in danger. Strong doses of calo-
“ mel and jalap, and, in some instances, anti-
“ mony, are the only medicines I have employed.
“ Mr. Morgan is of opinion, that this fever has
“ not the least resemblance to the yellow fever
“ which he has witnessed in the West Indies;
“ but on comparing the symptoms with that de-
“ scribed by Dr. Rush, as it occurred at Phila-
“ delphia in 1793, and which is called by him
“ the bilious remittent, a great similarity will be

“perceived ; that, in the present instance, is
“much more mild, and in general not so rapid
“in its progress ; *and yet, I believe, even here,*
“*some have died as early as the second, third,*
“*or fourth day.*

On the 5th of October, two days before I arrived at Mahon from the fleet, Dr. Ross, in a note of that date, informs me, that,—“Mr. Morgan has had a severe attack of fever, and from
“feeling the good effects of this practice on his
“own person, has been a complete convert to it ;
“after five bleedings, the fever in him was cut
“short on the second day. Lieutenant Hooper
“was completely relieved from fever by the abstraction of twenty-two ounces of blood from
“the temporal artery ; and he himself positively
“believes that it saved his life. But I need not
“mention any more instances to prove the good
“effects of a practice so well known to you.
“The number of sick from the *Temeraire* at
“the hospital, is one hundred and thirty-six ;
“the total number of deaths amount to twenty.
“What number the *Invincible* has lost I have
“not been able to ascertain.”

I lost no time in going to the hospital, after my arrival at Minorca, on the 7th of October, and I cannot better describe the state in which I found the sick, than by the following extract of my report to the Commander in Chief on the occasion.

“ On visiting the hospital I found twelve or
“ fourteen men in bed, two of that number
“ with dysentery, and the remainder in a state
“ of great debility from fever ; but in whom the
“ acute stage of the disease had passed. The
“ total number ill is one hundred and thirty-three
“ from the Temeraire, and one hundred and
“ seven from the Invincible. The others are in
“ different stages of convalescence, with great
“ disposition to relapse ; particularly the Invincible’s men, who are extremely extenuated,
“ and, I fear, many of them will be a considerable time before they recover their strength.”

On making enquiry as to the method of treatment which had been pursued with those men, I found it to have been by the use of emetics, calomel, antimony, bark, and wine, in large quantities, with full meals of animal food from the beginning. Bleeding, it was said, had been tried, and failed ; *but after the most minute enquiry, I could only find, that out of the whole of the Invincible’s men who were ill, only three had been bled once, and that one out of that number had died.* In the Temeraire, where the same line of practice had been pursued, I could only learn that some had been bled, and that some had died ; but what quantity of blood had been taken, or at what period of the disease, I could obtain no information. Some cases occurred

after this, who were, by my directions, freely evacuated; one to the amount of 140 ounces of blood. The whole soon got well, and returned to duty before many of the others who had been six or seven weeks under cure.

After several visitations to the hospital, I soon saw, that though the acute stage of the disease had passed, we had yet a very serious enemy to encounter; and I am sorry to say, my predictions have been but too well verified.* In the mean time, as the failure of evacuations in the early stage of the fever of this country was a circumstance I could not easily think correct; and, as Dr. Ross had been on the spot the greater part of the time, I wrote a note to him, as he was then in quarantine on board the *Temeraire*, to know exactly the circumstances, as far as they were within his knowledge, and he replied as follows:—

“ I am this moment favoured with your communication respecting the fever which has lately been so prevalent here; and I am not a little astonished, that the evacuating plan, the superiority of which I had proved by the strongest of [all arguments, *facts*, has not been adopted at the hospital.” Dr. Ross then

* The patients were constantly relapsing; several as frequently as three times, most of them once, and some of them were daily attacked with dysentery.

repeats what is mentioned in the former letter respecting the symptoms, and goes on by saying,—
“ The practice of blood-letting in the early
“ stage of this fever, *has never been carried to*
“ *its full extent in the Temeraire, except in*
“ *those cases, of which I had myself the treat-*
“ *ment, during the surgeon's illness, and none*
“ *of these were sent to the hospital;* for the dis-
“ ease was in the first instance cut short, as can
“ be proved by the testimony of the assistant sur-
“ geon on board, who, during his uncle's illness,
“ bled liberally at the commencement of the dis-
“ ease, and now declares openly,—‘ *that no*
“ *treatment but the abstraction of blood was of*
“ *any avail.*’ The Junior Mr. Morgan's note
to Dr. Ross, on this occasion, is as follows:—

“ In complying with your request, I have
“ to regret the smallness of the number; howe-
“ ver, they will suffice to prove the grand effect
“ of the bleeding plan (when taken in time)
“ which you so judiciously and successfully
“ adopted in the late epidemic. I shall attempt
“ to state the most striking and particular symp-
“ toms, which justified me in adopting the
“ bleeding plan. The cases are five in num-
“ ber, and were attacked in the following man-
“ ner: violent head-ach, turgescence of the eyes,
“ pulse quick and hard, throbbing of the tem-
“ poral arteries, the tongue white and dry, with

“ preternatural heat of skin, &c. The five
“ men before mentioned, were instantly bled
“ on their first attack, and that copiously too,
“ which rendered it unnecessary to have further
“ recourse to the lancet, and gave them imme-
“ diate relief; afterwards they took cathartics,
“ and, in two or three days, their fever was at
“ an end.”

After my arrival, few fresh cases occurred; but there were many relapses, and several were attacked with dysentery.

On the 22d of October, the hospital was allowed pratique, and I had a better opportunity of ascertaining the actual state of the patients in it. I found the sick belonging to the Invincible and Temeraire in a worse condition than I had reason to believe.

In the Invincible, out of eighty cases in the hospital, ten only were fit for duty. Six had dysentery, which had originally accompanied the attack of fever, thirty-one had dysentery, which had succeeded the attack of fever, and there were thirty-three convalescents, in a very debilitated state, and frequently relapsing. The Temeraire's, who were more numerous, bore a like proportion; and some afterwards died of dysentery under the care of Dr. Ross, whom the Commander in Chief appointed to the charge of the temporary hospital. This fever commenced

in these ships in the latter end of August, and, in December, at least one hundred and twenty, from the two ships, were still in the hospital. Such was the effect of the remedies and plan of treatment which had been followed.

The account of the disease, as it appeared amongst the Temeraire's men, at the hospital, is given by Mr. Rudland, then assistant surgeon, as follows:—

“ The patient was generally attacked with
“ lassitude, cold shiverings, pain in the head,
“ back, and extremities, succeeded by great
“ heat, anxiety, and prostration of strength.
“ The attack was sometimes accompanied by
“ bilious diarrhœa; oftener with constipation
“ of the bowels. For the first two or three
“ days, the remissions were generally very dis-
“ tinct; the pulse, during the paroxysm, from
“ 115 to 135; the heat of skin intense, with
“ thirst and restlessness; white tongue, and
“ red or watery eyes. From the commence-
“ ment of the remission, the pulse gradually
“ decreased in frequency, sometimes to its na-
“ tural standard; the heat and thirst became less,
“ the paroxysm often terminating in a short
“ sleep, with a gentle diaphoresis, followed by a
“ copious discharge of limpid urine. As the
“ disease advanced, the remissions became less
“ distinct, or not at all apparent; and, in some
“ cases, very little remission could be observed

“ from the commencement of the disease. On
“ the third, fourth, and fifth days, the eyes
“ and tongue became yellow, which gradually
“ extended over the whole surface of the body
“ and extremities, accompanied with coma,
“ quick weak pulse, low delirium, and great
“ prostration of strength. As the disease pro-
“ ceeded, the coma and debility rapidly in-
“ creased, the tongue became brown, the eyes
“ assumed a darker yellow, and glassy appear-
“ ance, with oppression at the præcordia, and
“ difficulty of breathing. In several cases that
“ proved fatal, hæmorrhagies took place on the
“ sixth or seventh day, and, sometimes, at a
“ later period, from the nose, mouth, anus, and
“ urethra. As the disease further advanced, the
“ tongue, lips, and teeth, became black and
“ furred; the former, when put out, trembling,
“ and was not withdrawn, unless the patient
“ were desired to do it. Extreme restlessness
“ now took place, with quick, weak, trembling,
“ or intermitting pulse; black, and highly fœtid
“ stools, with offensive breath; hiccough, subsul-
“ tus tendinum, followed by involuntary eva-
“ cuations of the urine and fæces, which con-
“ tinued for twenty-four hours, or longer, if
“ the patient in the meantime were not taken
“ off by convulsions.

“ In two cases, which proved fatal, a swell-

“ ing of the parotids took place, and vibices
“ appeared upon the extremities.

“ Except in two patients, who recovered, no
“ particular irritability of stomach could be dis-
“ covered; vomiting very seldom took place,
“ the stomach in general retaining every thing
“ till within a few hours of death.”*

The following is the account given by the assistant surgeon of the Invincible :—

“ This fever was ushered in with cold or shi-
“ vering, followed by heat, quick pulse, great
“ thirst, pains all over the body, particularly
“ severe across the forehead; great weight and
“ oppression at the præcordia, accompanied
“ with bilious vomiting, in some with white and
“ furred tongue, which, when put out, had a
“ tremulous kind of motion; in others, it com-
“ menced with a slight bowel complaint. The
“ urine in general was high coloured; and the
“ stools, in colour, resembled mercurial oint-
“ ment. The eyes, in a few, appeared in-
“ flamed, and painful on motion; delirium be-
“ gan sometimes on the first or second day, or
“ later; yellow tinge generally about the third
“ or fourth day, and shewed itself first in the
“ conjunctiva. Singultus was a very common,
“ but not fatal symptom; irritability of stomach

* I have not myself seen a case which proved fatal after the fifth day, wherein vomiting did not take place.

“ not very prominent, it appeared but in few.
“ Remissions in some strongly marked; after
“ the third or fourth day symptoms of debility
“ made their appearance, and increased rapidly.
“ The first thing done, in almost every case,
“ was to clear the primæ viæ by an emetic and
“ cathartic, and, afterwards, to exhibit calomel,
“ so as to keep the bowels open, and bring the
“ system under its influence. Bark and wine
“ were given to support the patient, and when
“ the remissions were marked, in considerable
“ doses. Of all those who died, not one of their
“ mouths was affected by mercury.* For topical
“ affections, blisters were generally employed.
“ It seemed to affect the young and plethoric
“ more than others.”

I have thus endeavoured to collect all the information I could respecting the nature and treatment of this fever, as its subsequent consequences have been almost as distressing as its immediate effects.

The *Téméraire* sailed from Mahon for England on the 25th of December; and, when she arrived, upwards of twenty men, who had had this fever, were invalided. She was, soon afterwards, put out of commission, and her men turned over to the Union; from whence, many

* When I visited the sick of the *Invincible*, I do not recollect seeing more than one patient, whose mouth was affected with mercury, and he was taken ill after my arrival.

under the same circumstances were invalided. This ship afterwards proceeded to the Mediterranean; and, since her arrival on this station, nearly twenty of her men, who had been sufferers from fever the preceding year, have been sent home consumptive, or with visceral obstructions; so that, on a common calculation, this fever cost the Temeraire's ship's company at least eighty men, comprising deaths and invalidings.

About the time this fever was so prevalent at Mahon, several of the ships at Malta had a like visitation; and it was there treated by Mr. Allen, surgeon of the hospital, and by the surgeon of the Weazle, with a success and propriety that have never been exceeded, and are well worthy of record.

In the months of April and May, fever to a considerable extent prevailed amongst the prisoners of war, lately arrived from Gibraltar. They had been some time embarked, and had reached the place abovementioned, on their way to England, but were ordered to return.

Mr. Allen, in his report of this fever, says,—
“ The disease was ushered in by cold shivering,
“ head-ach, pains across the epigastric region,
“ loins and limbs, constituting nearly the symptoms of the epidemic of this island. Bleeding, open bowels, blisters, and determining to the surface, constituted our practice, with great attention to personal cleanliness.”

It appears by Mr. Allen's official reports, that during this time, two hundred and fourteen cases of fever were under his care, of which number, fourteen only have died.

Towards the latter end of June, fever began to make its appearance amongst the Pomone's ship's company, in the harbour; she was refitting at the dock yard. The following were the symptoms, as described by Mr. Allen:—

“ Violent head-ach, watery suffusion of the
“ eyes, severe pain across the epigastric region
“ and loins, attended with pains in the limbs,
“ nausea, and vomiting; pulse full and frequent;
“ tongue furred, with constipation.
“ One of these men had been three days ill,
“ and when received, was tinged with a deep
“ yellow suffusion; had singultus, and his
“ pulse much sunk: he died the second day
“ after his admission into the hospital. Another
“ died two hours after being received; I think
“ from effusion on the brain. He had complained
“ in the morning, and had all the symptoms of this fever,
“ but not violent. The head and liver seemed to be the principal
“ viscera affected in this fever. The forehead, and frontal
“ muscle were, in some cases, swelled and painful. The Weazle
“ sloop, refitting at the dock yard, has also sent us about thirty,
“ with similar symptoms to the Pomone's; and

“ the surgeons of these ships have very properly sent their men to the hospital the moment they were seized.

“ Our method of cure has been, in the first instance, by the abstraction of thirty ounces of blood, the exhibition of a cathartic, and a bolus composed of calomel and antimonial powder, of each two grains, twice in the day ; the mist: salina, or julep: ammon: acetat:—in the evening, the bleeding, if necessary, was repeated. Next day, if the symptoms required it, recourse was again had to the abstraction of blood, a blister applied to the epigastric region, and the febrifuge medicines were continued. By this treatment the fever was, in most cases, subdued in three or four days. When the febrile symptoms were longer protracted, we carried our bleedings as far as seven or eight pounds, with eminent advantage. During the cure, the whole of the antiphlogistic plan was strictly enforced.

“ In several of these patients I found bleeding with leeches, at the temples, attended with great and immediate relief.

“ I consider this fever to have been brought on by intemperance and exposure to heat, constituting the bilious, or yellow fever of the island. It is not contagious.

“ These two ships were rich with prize mo-

“ney, and the seamen, &c. consequently irregular.”

During the month of July, fever still continued to prevail amongst the Weazle's crew, and eighty-five patients, labouring under that disease, were sent to the hospital. Mr. Allen, in his report for July, states,—“That the disease and treatment continued the same; and, owing to the very judicious practice of Mr. Wardlaw, surgeon of the Weazle, by the early use of the lancet, on the first appearance of fever, before they were sent to the hospital, and sending them immediately after, the disease was soon checked, and seldom assumed a serious aspect. Not one has died of fever during the month (one hundred and thirty-one were received, two hundred and twenty-three were discharged cured!!) When patients, afflicted with this fever, were left without medical aid, which was the case in one or two instances, *they became deeply tinged yellow; the fever was long protracted, and extreme debility succeeded; but when early bleeding was resorted to, it completely prevented those symptoms.*”

Mr. Wardlaw, whose judgment and success stand equally conspicuous, reports:—

“The state of the weather for these six weeks past has been extremely warm; the thermo-

“ meter ranging from eighty to eighty-seven;
“ in the shade. The Weazle arrived at Malta
“ in the month of June, and went up to the
“ dock-yard to refit, and the ship’s company
“ were then perfectly healthy. Liberty being
“ given to go on shore; and they having re-
“ ceived a considerable sum of prize-money,
“ intemperance was the consequence; and, next
“ day, while very much debilitated, their duty
“ necessarily exposed them to the heat of the sun.
“ Fever began to make its appearance on the
“ 28th of June. The symptoms of this fever
“ were severe head-ach, nausea, and vomiting
“ of a bilious matter; great prostration of
“ strength, bowels costive, pulse full and strong,
“ eyes suffused, with dilated pupils; thirst ur-
“ gent, tongue dry, and loaded; with severe
“ pain, and tightness across the breast. One
“ or two dropped down in a state of insensibi-
“ lity. On the first attack, I took away imme-
“ diately from twenty-four to thirty ounces of
“ blood; saline draughts were administered in
“ a state of effervescence, and directly the vo-
“ miting ceased; one ounce and a half of the
“ sulphate of soda, dissolved in a pint of bar-
“ ley-water, was given in divided doses, till the
“ whole was taken, and the *mist: salina tertia*
“ *quaque hora*, and a bolus of calomel and an-
“ timonial powder, of each two grains, twice a

“ day, till the mouth was slightly affected, generally completed the cure. The liver and brain seemed to be the only viscera affected; the liver from obstructed ducts, and the brain from the great determination of blood to it. Topical blood-letting, by leeches, was of great use. Between the 28th of June and 20th of July, no less than eighty-nine cases of fever were sent to the hospital. I removed them on shore as early as possible, but took care to bleed and administer a cathartic as soon as the patient complained.”

The success attending the exertions of these gentlemen is a circumstance unparalleled in the history of fever, and is a striking example of what promptness and ability will do in the cure of this devastating disease. More than nine-tenths of these men had returned to their duty within a month, and the remainder soon followed.

In the month of September following, the same disease made its appearance amongst the *Trident's* (guard ship) crew, and extended to about thirty of them: the symptoms and treatment were similar, and the only person who died was the first lieutenant, who, for the first five days, would not suffer himself to be bled, and died the same day he was received into the hospital.

In the latter end of October the fleet came into Port Mahon, to complete their water and

provisions, and to refit, having met with very boisterous and unsettled weather. Some cases of fever appeared amongst them, but were speedily subdued, by the early use of the lancet and purgatives. They sailed again in the middle of November, and remained at sea for a month; during which time, several of the ships had a few of their men attacked with the same kind of fever as had lately been so prevalent; but the same practice was attended with a like success. Occasional sporadic cases also occurred in some of the ships in the harbour.

The fleet finally returned for the winter, about the middle of December, in excellent health. With the exception of a few cases of pneumonia, this continued till the end of February, when I left Mahon, to proceed to Malta, to inspect the establishments and ships there. During March nothing of any moment in the medical department there occurred; but, about the 1st of April, a fever made its appearance on board the Trident, and extended to one hundred and four of her crew: it soon also appeared in the Victorious, lately returned from the Adriatic, to refit, after her action with, and capture of, the Rivoli; and several sporadic cases were received from the other ships in the harbour.

In the Victorious, sixty cases of fever occurred; thirty-four were sent to the hospital,

and four died: the remainder were speedily cured on board, and at the hospital, by the active and judicious treatment of my excellent friend, Mr. Allen, and Mr. Baird, surgeon of the Victorious. Of those who died, two had been in a state of great intoxication on shore for some days previous, and, when received into the hospital, might be said to be apoplectic, and were evidently lost cases, though every thing that could have been done to save them, was already put in execution by Mr. Baird. A third had the severest pneumonic symptoms I ever witnessed; the cause of which, examination after death, readily explained. Of the fourth, I have no memorandum to guide me.

Out of one hundred and four from the Trident, only one died! * Mr. Allen, in his report on this occasion, says:—

“ You, Sir, have been an eye witness to the
“ practice of the hospital; and having detailed
“ the symptoms and treatment extensively in
“ former reports, I can add little more, than
“ that I am, if possible, more than ever con-
“ vinced of the beneficial effects resulting from
“ early and repeated bleeding, both from the
“ temporal artery and arm. In the cases which
“ terminated fatally, death was always preceded

* These men were sent to the hospital the moment they complained.

“ by violent delirium and coma; the stomach
“ sympathizing with the highly inflamed state of
“ the brain, lungs, and liver.* I have found the
“ greatest advantage from the application of
“ blisters to the head, breast, and epigastric
“ region.”

Between the 1st of April and 23d May, one hundred and fifty-three cases of fever had been received under Mr. Allen's care; one hundred and twenty-four had been discharged, eight died, and twenty-one were convalescent in the hospital, all rapidly recovering, except one, who appeared to have effusion on the brain, and had hemiplegia. Here was no dysentery, no consumption, no visceral obstruction; the judgment, the attention of Mr. Allen, prevented all this, and returned them to their ships, without an ache, in the most perfect health. Nothing could be more gratifying than to visit Mr. Allen's wards, where every thing was in the highest order, and where a regular succession of grateful convalescents, immediately met the eye; each advanced in recovery according to the length of time he had the benefit of his assistance in the hospital. Many of the patients, who were labouring under the severest head-ach, with great apparent prostration of strength,

* This was uniformly found to be the case on dissection.

were instantly relieved by the abstraction of thirty ounces of blood from the temporal artery ; and many exclaimed while the blood was yet flowing,—“ Sir, I am as strong as ever ; I am “ quite well ; I feel the pain running out with “ the blood.” And so sensible were they of this, that on a recurrence of head-ach, they directly sent for the assistant-surgeon, to have more blood taken from them.

On my return to Port Mahon, in June, I found that fever had begun to make its appearance on board the Rodney, then lying in that harbour. It commenced two days before my arrival, and I was just in time to direct the proper practice. Dr. Ross had left the hospital, a surgeon having arrived from England in the hospital ship. Emetics, and camphorated julep, with antimony, were the order of the day ; but I directed the practice to be laid aside.

The fever was, in itself, particularly mild, as is usual at this season ; and the surgeon of the Rodney, Mr. Girvan, with his assistants, assiduously executed my directions ; indeed, so much so, that but few patients sent to the hospital, required a second bleeding.

The same disease occurred on board the Rainbow ; and Mr. Lawson, who was formerly one of my hospital mates in England, and who was also serving as surgeon of the Centaur, when the epi-

demic prevailed on board that ship the preceding year, left little for them to do at the hospital, by pursuing the evacuating system with judgment.

In the months of August and September, the weather was oppressively hot, with southerly, or south-easterly winds, and several severe cases of fever were received from the transports employed as cattle-ships, and a few from the men of war that occasionally came in to refit. In these cases bleeding was not at all practised, or very sparingly.

Towards the middle of October, I took upon myself the charge of the physical patients in the hospital. They continued under my care from this time till the 12th of December, when the surgeon, who was *then* appointed to the hospital, took charge of them.

During the time abovementioned, eighty-two cases of fever came under my care, the worst I had as yet seen; some of them requiring the most prompt exertions. Out of this number four died: three of these were lost cases before I saw them; the fourth died from inflammation of the brain. Several of these mens' cases, with the dissections of those who died, will be found amongst the others.

From this period, down to the end of the year, nothing of moment occurred at Mahon.

At Malta, the Trident had another visitation of fever; twenty-six cases were placed under Mr. Allen's care, which he treated with his usual judgment and success, not a man dying.

In the month of October, the Ajax, lying in Palermo Bay, had many of her men attacked with fever. Mr. Shand's very interesting report is as follows; and speaks so much for itself, that any observation from me would be superfluous. The Ajax had hitherto been one of the most healthy ships of the fleet.

“ The most prominent feature in this disease, and most uniformly complained of, was the violence of the head-ach immediately over the eye-brows, with giddiness, and more or less confusion of intellect. In some, the face was pale and deadly, the features contracted and shrunk; the eyes appeared dull and heavy, and hollow in their sockets: in others, there were flushings of the face, redness of the eyes, with delirium; great irritability of stomach prevailed, with nausea, violent retching and vomiting. The patient complained of severe pains of his back and loins; but more particularly his limbs, which were often tottering under him. Debility, with great prostration of strength, being the immediate consequence of the attack, which, in most cases, was sudden and entirely unexpected;

“ the bowels were commonly irregular, some-
“ times constipated, and at others open ; but
“ stools in general deficient in bile. The tongue
“ in most cases, was natural ; but in several,
“ white and dry, with an angry redness of its
“ sides ; in some, inclined to be brown, but
“ never black till the later periods of the dis-
“ ease. The pulse, in the more violent cases,
“ was quick, feeble, and frequently intermit-
“ ting ; in the milder, from its healthy stand-
“ ard, to a great degree of quickness : in some,
“ it was full and quick ; in others, small and
“ contracted ; in short, in a majority of cases,
“ the pulse indicated nothing. Towards its ge-
“ neral termination in the ship, the symptoms
“ above mentioned became less distinct, and
“ seemed to give way to an affection of the
“ chest, assuming the appearance of inflam-
“ mation of the lungs, such as pain of the side
“ (stitch,) with short dry cough, and difficult
“ breathing ; quick and full pulse, and dry skin.
“ As the brain appeared to be the first organ
“ affected, its consequences were a little varied
“ according to circumstances : in several of the
“ cases, the persons complained of great and
“ general uneasiness over the whole body : they
“ could state no individual part more painful
“ than another ; the most distressing oppression
“ and anxiety pervaded their whole frame, and

“ their looks indicated the severest anguish ;
“ their pulse was feeble, and scarcely to be felt ;
“ and such was their situation, that, to all ap-
“ pearance, the interposition of medical aid
“ could not long avert the hand of death. The
“ heat of skin during the whole disease was
“ little altered, never varying above two degrees
“ either way.

“ In the first cases that made their appear-
“ ance, the symptoms were very suspicious,
“ assuming the character of the typhus mitior ;
“ for instance, lassitude and languor, debility
“ and prostration of strength, slight irritability
“ of the stomach, pulse small and quick, tongue
“ dry and brown. I must confess, that this in-
“ sidious mode of attack, threw me off my
“ guard, as to its real nature, for it seized those
“ who were labouring under previous disease
“ and debility at the same time, and which
“ were combated by remedies usually employed
“ on such occasions. Notwithstanding the nature
“ of the disease, as it at this period appeared, the
“ remedies employed succeeded in three cases,
“ and failed in two ; but other appearances
“ soon succeeded, which released us from all
“ apprehensions as to its real nature, and a
“ more decided and prompt practice was adopted
“ in its room. The recollection, Sir, of your
“ successful treatment at Forton and Mahon,

“ supported me in my plans, and rewarded me
“ in my practice.

“ The alarming symptoms which I have de-
“ tailed, immediately gave way to liberal and
“ copious bleedings. The patient, who came
“ in supported, or carried by men, after the
“ abstraction of twenty ounces of blood, got up
“ and walked, wondering at his relief. Venese-
“ tion was the sovereign and speedy remedy in
“ alleviating their sufferings, producing a per-
“ fect remission in twenty-four hours, the blood
“ always exhibiting strong inflammatory marks.

“ In a majority of cases, two copious bleed-
“ ings, with the administration of a saline
“ purge, sufficed in removing the immediate
“ danger. The moment the pulse became re-
“ gular, with freedom from head-ach, which
“ was the great point to be attained, the bark
“ was liberally given ; and, I assure you, Sir,
“ the most severe cases returned to their duty at
“ the expiration of a few days.”

Mr. Shand then goes on to mention, that in some protracted cases, advantage was derived from alterative doses of calomel, and that the infusion of quassia had an excellent effect as a tonic. He also observes, *that many, who were labouring under venereal disease, and whose systems were completely under the influence of mercury, were attacked with the same fever.*

In a subsequent report from Mr. Shand for the month of December, I am informed,—“ That
“ the same fever, with equal severity, but not
“ to such an extent, and combined with another
“ disease of as dangerous a tendency (pneumo-
“ nia), still continued to prevail, notwithstand-
“ ing the unremitting attention of the captain
“ and officers to every thing that could contri-
“ bute to the health and comfort of the crew.”
He then proceeds as follows:—“ The present
“ re-appearance of this fever differs little from
“ what I detailed to you, in a former report,
“ only it is not so sudden in its attack, and
“ far more complain of pulmonic affections.
“ In some cases the remissions were very dis-
“ tinct, with apparent freedom from complaint;
“ but this was of short duration, the violent
“ pain of the forehead soon succeeded, with
“ debility and sympathetic affection of other
“ parts, but particularly the stomach. In others
“ it was far more insidious, with general op-
“ pression, lassitude, and languor; the pulse
“ was small, and oftentimes natural; the tongue
“ clean; bowels open, and skin cool; yet
“ there was an uneasiness pervading the whole
“ frame, which they felt, but could not de-
“ scribe, and which was evident to the eye, be-
“ ing dull and heavy, and more or less distress
“ marked the features. Many of them were

“ attacked with symptoms of pneumonia, and
“ severe pain of the forehead; all ushered in
“ by the usual transitions of a paroxysm of in-
“ termittent fever.”

“ With respect to the treatment, little need
“ be said; bleeding, in its early period, was our
“ sovereign remedy—our great dependence and
“ hope, and one which never disappointed or
“ deceived us. In consequence of the *strong*
“ *inflammatory diathesis*, it became necessary
“ to be more cautious in the administration of
“ bark; and where a tonic was required, I
“ found the quassia, with a portion of ginger,
“ an excellent one.”

Febrile diseases still continued to prevail in the Ajax during the succeeding months of January and February, which Mr. Shand treated with his usual ability and success. In the month of February, he observes, “ In one case of a
“ strong and vigorous man, in the bloom of
“ health and strength, I was obliged to carry
“ bleeding further than I had ever done before;
“ but, the most pleasing result was the conse-
“ quence: the perfect suspension of a disease,
“ which otherwise, from its severity and vio-
“ lence, was rapidly undermining his constitu-
“ tion, and flying to a fatal termination: in the
“ course of eight days, he lost upwards of
“ fifteen pounds of blood from the arm and

“temporal artery. I have now much pleasure
“in observing his fast and daily approaches to
“his wonted state of health.” Mr. Shand does
not mention whether this were a case of fever
or pneumonia, and there are several classed
under each of these heads in the reports.

In the months of January, February, and
March, 1813, a fever made its appearance on
board the Tremendous, lying in Mahon, and
extended to upwards of ninety of her ship's com-
pany: the appearances were such as commonly
mark the progress of fever at this season, viz.
severe pulmonic affection, joined to the usual
symptoms of the fever of the country. In some,
the vomiting was excessive, and in most it was
attended with great irritability of stomach.

Mr. Donald, surgeon of that ship, treated it
with great success by evacuations in the early
stage, and only three out of the whole died.
About twenty of the severest cases were sent
under Mr. Boyd's care to the Naval Hospital,
who was alike fortunate in his treatment. Mr.
Donald, in his Medical Report for the month
of March, gives the following interesting ac-
count of this disease.

“They complained at first of cold shivering
“and severe head-ach, with general pains, but
“more particularly in the breast and loins;
“pulse generally from 90 to 100, and full;

“ skin hot and dry; sometimes the pulse was
“ more frequent, even to 150 in the minute,
“ small and firm; attended with less heat of
“ surface, but great oppression at the breast,
“ and much anxiety; tongue white, consider-
“ able thirst, face flushed, eyes red and painful,
“ belly generally costive, frequently inflamma-
“ tion and swelling of the tonsils.

“ Blood was freely drawn in the first in-
“ stance, according to the urgency of the
“ symptoms, at the same time giving repeated
“ purgatives of the neutral salts, or calomel and
“ jalap combined; saline draughts, with anti-
“ monials and calomel, in the evening. When
“ there was much determination to the head,
“ bleeding from the temporal artery was at-
“ tended with excellent effect, as well as sha-
“ ving and blistering the head.

“ As the disease advanced, the tongue became
“ brown and rough, the yellow suffusion took
“ place all over the body, with stupor, delirium,
“ and singultus. Blisters were applied to the
“ breast repeatedly, and likewise to the head,
“ apparently with good effect; at the same time
“ keeping the bowels open. In some instances,
“ an almost incessant vomiting of bilious-like
“ matter occurred, attended with obstinate cos-
“ tiveness; sometimes in less than twenty-four
“ hours, but generally later, the pulse was fee-

“ ble and frequent, and in some cases with diffi-
“ culty reckoned; the skin rather cool, with
“ clammy sweats, and much dejection. Saline
“ effervescing draughts, with a few drops of
“ tinct: opii: frequently repeated, and the appli-
“ cation of a large blister to the region of the
“ stomach, were the remedies which gave most
“ relief.”

It has been difficult to trace the cause of this disease appearing in the Tremendous at this rather unusual season of the year; and it is only by reviewing her progress in the Mediterranean, that I am at all enabled to throw even a probable light on the subject. The Tremendous sailed from Spithead on the 15th of August, with the flag of Vice Admiral Sir Sydney Smith, and, on her way to join the fleet, she visited several of the Spanish Ports within the Mediterranean, and on the 13th of September, arrived at Carthagená, where fever to a very considerable extent prevailed, both amongst the inhabitants, and in the British troops who were in garrison there, and many deaths occurred. The Tremendous, during her stay at Carthagená, lay in Escombrera Bay, and the intercourse with the city was very limited. She remained there till the 24th. The Leyden troop ship, with part of the 67th regiment on board, lay in the bay, and *both ships' companies* were exceedingly healthy

during their continuance there. The only person who was soon attacked with fever was an officer of the *Tremendous*,* who had been a good deal exposed to the sun, and the influence of the marshes surrounding Carthagená, from being on shore, and he had a pretty severe attack shortly after they joined the fleet off Toulon, which was within a period of ten days after their intercourse with Carthagená. The *Tremendous* was in Mahon for a few days, and when the fleet returned to that harbour for the winter, she, together with the *Repulse*, remained to cruize off Toulon, where they continued till the end of November. After the arrival of the *Tremendous* at Mahon in November, a long series of wet weather was experienced; which, joined to the usual excesses the sailors have an opportunity of indulging in at this time of the year, may be fairly allowed as powerfully exciting causes in men, who in all likelihood were predisposed to an attack of fever, from their exposure to the miasma at Carthagená during the autumn. The period of time from the exposure to the appearance of the fever is certainly considerable; but the dear-bought

* He felt a slight head-ach on the 29th of September, but was not seriously ill till the 4th of October; after which, for a very long period, he was subject to the attacks of a quartan ague.

experience of the Walcheren Expedition, has taught us that it is no less possible: and another circumstance which strongly confirms me in this opinion, is, that the Leyden, which while in Carthage Bay was perfectly healthy, on going to Gibraltar, and possibly experiencing the same exciting causes, suffered in like manner; but, from having a much smaller ship's company, not to such an extent. I have no report from her surgeon; but I observe, by the returns of Gibraltar Hospital, that several of her men had died with a similar fever.

During the time this disease has been so prevalent in the Tremendous, ships lying within two cables length (or less) of her, have been totally exempt from it.

The ships of the fleet generally suffered, as is usual during the winter, from pulmonic inflammation, which, wherever free evacuation was had recourse to in the beginning, terminated favourably.

The ships at Malta suffered less than usual from fever this season, the Alcmena alone having any considerable number attacked with it.

* The most unrestricted intercourse was allowed during the whole time this disease prevailed in the Tremendous, yet not one man in any of the ships of the Fleet was taken ill in consequence thereof.

She had lately returned from the Adriatic to refit, and during her stay at Malta, had landed several men with fever at the Naval Hospital. She sailed from Malta on the 29th of January, as the surgeon reports, "with but few sick. " A short time after sailing, however, some " cases of violent fever occurred, which daily " increased in number, so that on the 7th " of February there were nearly forty men affected by it, twenty-five of whom were so ill " as to be confined to bed." There being only one medical attendant on board, (Dr. Arnold, the surgeon) it was at one time in contemplation to have returned to port. Dr. Arnold adds, " I had the satisfaction of finding, however, " that the very vigorous practice I employed at " the commencement of the complaint, had " even more than the *expected* good effect; " some cases, which at the commencement portended the greatest danger, were so far obviated as to be convalescent on the third or " fourth day from the attack, which fortunate " circumstance was the occasion of the ship's " continuing at sea."

Though I had no doubt in my own mind, as to the method of practice he had pursued, (as I am assured there is only one which could have produced such a result) I wrote to Dr. Arnold, requesting he would state to me more fully, the

symptoms and treatment of the disease, which he very obligingly did. The former I found so perfectly similar to those I have so frequently detailed, that it is quite unnecessary to repeat them here; and the practice fully corresponded with my own, except that antimonials (from the absence of the extreme irritability of stomach, which characterizes this fever in the warmer seasons of the year) were more generally given. Nothing remains for me to add, but that, out of nearly fifty cases, not a man died; and the greater part returned to their duty in less than a month.*

As the spring advanced, slight cases of fever, attended in some instances with manifest determination to the brain, and in others with pulmonary inflammation, prevailed in several of the ships of the fleet; and often, in these patients wherein the brain was materially affected, followed by a slight yellow suffusion. Some of the cases required active depletory treatment, which was attended with its usual salutary effects; but in general they were very slight, yielding to the operation of purgatives, succeeded by small

* Dr. Arnold has detailed one very severe case, in which he found it necessary to take away blood to the amount of 198 ounces, before he subdued the excessive action;—the man was at his duty in three weeks.

doses of antimony and saline julep, together with confinement and a reduced diet.

Towards the end of May, cases of the summer fever occurred in some of the ships, but they were alone numerous at this time in the Bombay of 74 guns. This ship had been anchored close to the Arsenal, during the greater part of the winter and spring preceding, and was then remarkably healthy; she sailed with the fleet on the 10th of April from Mahon, and continued at sea till the 23d of May following. For about a fortnight before she sailed, the weather had become very warm, and the marshy ground at the head of the harbour, and that part left uncovered by the sea, emitted unpleasant exhalations, which appear to have had a very deleterious influence on the health of her crew, *for she was the only ship of the whole fleet, who did not at this time enjoy the best possible state of health.*

“ For many months previous to the appearance
“ of this fever” (says Mr. Rudland the Surgeon,
in a well written and accurate report he has
made of the disease) “ the ship’s company were
“ very healthy, a few cases of pneumonia upon
“ any sudden change of the weather, trifling acci-
“ dents, and other incidental complaints, form-
“ ing the whole of our sick list, which was sel-
“ dom above eight or ten.

“ On the 23d of May we bore up with the
“ fleet for Mahon, and on the 25th, the morning
“ of our appearance off that port, fifteen men
“ were seized (some of them very suddenly) with
“ pyrexia, severe griping pain in the bowels,
“ nausea, pain of the head and extremities,
“ thirst, heat and lassitude.

“ In some cases these symptoms were preceded
“ by cold rigors, alternating with flushings of
“ the face and head; but at this time with little
“ evident determination to that organ.

“ Between the 25th and 30th twenty more
“ were added to the list, but in these the features
“ of the epidemic had in some measure changed,
“ the determination to the intestines, being no
“ longer so marked, although still present in
“ several cases. The symptoms became more
“ inflammatory, with greater affection of the
“ head, evinced by a full throbbing pulse,
“ flushed face, watery eyes, turgid with blood, or
“ tinged yellow; the heat was more intense, with
“ throbbing of the temporal arteries, and great
“ irritability of stomach, nausea, and vomiting.
“ In many of these cases, the pain of the head
“ was very severe, shooting across the temples,
“ sometimes accompanied by slight delirium,
“ and a peculiar stupid countenance, great lassi-
“ tude and vertigo, particularly on attempting
“ to walk. In one or two instances great deli-

“ rium prevailed, and it was with some difficulty
“ the patients were quietly secured for the pur-
“ pose of being bled. The pulse was generally
“ from 100 to 130 in a minute, but in some
“ cases not more than 80, small and hard, and
“ having the peculiar feel of an oppressed
“ pulse; here the irritability of stomach was
“ very great, attended with severe retching,
“ without any evacuation from that viscus, and
“ it was only where the retching had continued
“ some time that any bilious matter was ejected.
“ The irritability of the stomach appeared to
“ be in proportion to the determination to the
“ brain, and not depending on any crudities in
“ the primæ viæ; it increased with each acces-
“ sion of pyrexia, when this was accompanied
“ by any determination to the head, and did
“ not subside till this was relieved by copious
“ bleeding. The general effects of this evacu-
“ ation (particularly when employed early) were
“ a diminution of heat and anxiety, a cessation
“ of delirium, a more cheerful countenance,
“ alleviation, if not a total removal, of the
“ vomiting, the pulse decreasing in hardness
“ and frequency, an universal diaphoresis, and,
“ in short, a remission of all the most evident
“ symptoms.

“ In some cases where the symptoms did not
“ at first indicate the use of the lancet, and in

“ several where the patients neglected to apply
“ for assistance, I have been obliged to have
“ recourse to it at a more advanced period,
“ and with evident good effect; but in these
“ the evacuation of blood, was not attended
“ with that immediate relief, so strikingly evi-
“ dent when it was had recourse to at the com-
“ mencement of the disease, before the morbid
“ action had exhausted the system by repeated
“ paroxysms.

“ In several cases where the first attack was
“ pretty severe, the early loss of thirty or forty
“ ounces of blood, with a brisk cathartic, have
“ entirely removed all symptoms of disease;
“ and a few days abstinence from animal food
“ and fermented liquors, were alone necessary
“ for the final re-establishment of health.

“ In most of the cases, the irritability of
“ stomach was so great, that no medicine could
“ be retained if given previously to the bleeding;
“ that operation generally relieved the sickness
“ and retching, and enabled the patient to bear
“ the repetition of the necessary cathartics.
“ The stools had commonly a dark bilious ap-
“ pearance. In several cases where the heat,
“ thirst, and dryness of the skin remained after
“ evacuations had been used, and the symptoms
“ did not then appear to indicate further deple-
“ tion, the cold affusion was had recourse to

“ with considerable advantage; but, in general,
“ the remission effected by the evacuations was
“ so complete, as to render the application of
“ it unnecessary.

“ In those cases where great irritability of
“ stomach remained after the evacuations,
“ (which, however, seldom happened when they
“ were had recourse to early) the application of
“ a blister to the region of the stomach has af-
“ forded considerable relief.

“ Since the 25th of May, upwards of one
“ hundred persons have been attacked with this
“ fever, of whom six only remain on the list,
“ and are in a convalescent state; one was left
“ at the hospital, where he was recovering, and
“ all the rest have returned to their duty.
“ H. M. S. Bombay, July 4th.”

In the month of June, the same fever appeared on board the *Berwick*, which ship remained at that time about a fortnight in Mahon, anchored above the Hospital Island, and her men employed unloading prizes. It extended to upwards of forty of her crew, and though generally mild, was in some cases very severe. The surgeon, Mr. Craigie, treated his patients with attention and ability, and the ship was soon restored to health. This gentleman's report is as follows:—

“ The fever which has prevailed on board
“ the *Berwick*, made its appearance on the eve

“ of her departure from Mahon, about the
“ beginning of the month: the only exciting
“ causes which could be assigned, were hard la-
“ bour on board of prizes at sea and in harbour
“ during the three preceding weeks, with some
“ opportunities of indulging in the use of in-
“ toxicating liquors. The weather, during our
“ stay in harbour, was generally hot and sultry,
“ with heavy dews at night. The greatest at-
“ tention was paid to every thing that could
“ affect the health of the ship's company, and
“ the ship's broadside was kept to the wind; in
“ hot and sultry nights the lower deck ports
“ were only sloped, to keep up a circulation of
“ air. The disease, in the first instance, at-
“ tacked the patients suddenly, with great pros-
“ tration of strength; violent head-ach soon
“ appeared, with universal pains, soreness of
“ the limbs and loins, and a flushed counte-
“ nance; suffusion of the eyes was a very gene-
“ ral concomitant when the head-ach was severe.

“ In two or three of the worst cases, a re-
“ markable anxiety and inquietude was denoted
“ by the state of the countenance, from the
“ commencement, with trembling of the extre-
“ mities.

“ Several complained of soreness of the throat,
“ with difficult deglutition; indeed the disease,
“ in some instances, could not be distinguished

“ from catarrh, except in its greater violence ;
“ the slighter cases of this description, only
“ required attention to diet, a saline purgative,
“ and small doses of antimony at bed-time.

“ The bowels were, with one exception,
“ always costive, and required repeated cathar-
“ tics.

“ The tongue was always white, as the dis-
“ ease advanced, parched, and, in the worst
“ cases, together with the lips and gums, was
“ covered with a black tenaceous fur. There
“ was little or no variety in the state of the
“ pulse; it was always rapid, full and strong,
“ in proportion to the violence of the other
“ symptoms.

“ The cure, when the nature of the disease
“ was ascertained, was begun by washing the
“ patient, and then, according to the severity of
“ the symptoms, particularly the head-ach, he
“ was bled either from the arm or temporal
“ artery; the latter method was found most
“ beneficial, and was generally preferred when
“ the head-ach was urgent. *The benefit derived*
“ *from blood-letting was often instantaneous,*
“ *and was always followed by an alleviation of*
“ *the most distressing symptoms, such as head-*
“ *ach; even during the flow of the blood, the*
“ *patients used to express their great relief.*

“ A saline or mercurial cathartic was given

“ as soon as possible, and repeated until copious
“ evacuations were procured. Repeated vene-
“ section, and the daily use of purgatives, were
“ the means relied on for a cure, and seldom
“ failed. The common saline julep was of ser-
“ vice in allaying thirst and restraining vomit-
“ ing, which were sometimes troublesome.”

Only one man out of the whole died.

The fleet was now, and had been from the end of May, off Toulon, and from the excellent arrangements of Sir Edward Pellew, the Commander in Chief, frequent supplies of fresh meat and vegetables were distributed; and, with the exception of occasional sporadic cases of fever, enjoyed a favourable state of health. In Mahon the ships were far more healthy than usual, and when the disease did appear in any of them, it was of a milder nature; indeed in some it was merely *ephemeral*. The reason of this healthy state, appeared to be principally owing to the short time they had remained in the harbour, their anchoring below Hospital Island, and the unusual coolness of the weather.

Still however, the ships which had occasion to refit, had several of their men taken ill, and though the cases were not so numerous, there were some very severe attacks amongst them.

In the Armada nearly thirty men were taken ill, and about half that number in the Scipion; in both which ships they were treated with equal judgment and success.

In the former, Mr. Delaney reports the symptoms to have been, “intense heat, severe pain
“of the head, particularly referred to the forehead, intolerance of light, depression of
“strength and spirits, pain in the epigastric region, and in a majority of cases, dyspnœa
“and cough; the stomach was but little affected
“except in one case; in four, the kidneys
“seemed to partake of the inflammation, *but*
“*universally the brain appeared to be the primary and principal seat of the disease.* Bleeding, purging, and the application of conductors for the immense quantity of caloric generated, were the means used for their cure.” Mr. Delaney mentions that benefit was derived from the use of calomel and blisters, and adds,
“Bleeding, however, was the remedy chiefly
“relied on, and the result has been such as to
“confirm and increase my confidence in its
“safety and utility, I believe, I may say necessity; for though I have seen fevers, apparently consisting in inflammatory action of
“the vessels of the brain, cured without bleeding, I have also painfully witnessed the num-

“ber of invalids sent home from this country
“by such a practice.*

“In these fevers the first bleeding was car-
“ried on till stopped by approaching delirium,
“when in a few minutes the nausea and faint-
“ness ceased; the patient was always stronger,
“and the pulse fuller than before the bleeding.
“The first bleeding was generally followed, in
“less than twenty minutes, by sweating and a
“remission; the second never failed to produce
“a remission, and the afternoon of the third
“day was in general free from fever.”

In the Scipion the disease presented no new features; but a relapse in the case of Mr. Young, a midshipman, was highly interesting. He had suffered a pretty severe attack, and speedily got the better of his illness by a prompt use of evacuations; but having something preying on his mind, he relapsed during his convalescence. When I visited him, he had been several days confined to his bed, and lay in a comatose state; his pupils were dilated, and he was not at all roused by the examination of his eyes, nor could we obtain any answer to questions put to him; but Mr. Rodmell informed me, that he had replied

* I have often myself seen in cases which had been treated improperly, *sequelæ*, similar to those which followed the Walcheren fever.

to his questions in the morning; his pulse was somewhat round, but oppressed, and not exceeding 100; there was increased action in the temporal and carotid arteries, his breathing was a little laborious, and he had but slight increase of heat.

I advised the application of leeches to the temples, the exhibition of a brisk cathartic, composed of calomel and jalap, and the application of a large blister to the head; the cathartic to be aided in due time by enemas.

These means were put in execution; on the following morning he was a convalescent, having experienced the most marked relief from the leeches and cathartic; he left his bed on the third day, and recovered from that time rapidly.

The fleet now occupied an anchorage off the mouth of the Rhone, where they lay six weeks, obtaining plentiful supplies of water, and continuing in a very healthy state, in which they remained up to the 16th of October, the period of my leaving them to return to England.

GIBRALTAR AND CARTHAGENA

FEVERS.

IT is universally allowed, that the summer of 1804 was one of greatly increased heat throughout Spain, and fever was more generally prevalent than it had hitherto been. The disease first made its appearance in Gibraltar, towards the end of August, or beginning of September, which had been preceded by a long course of extremely hot weather and easterly winds. The cases were at first slight, but the malady soon assumed a far more serious form, committed dreadful ravages, and finally terminated about the end of December.

The population of Gibraltar at this time, including the military, was estimated at about fourteen thousand souls; of this number, during the prevalence of the epidemic, five thousand nine hundred and forty-six died; viz. officers 54; soldiers 864; soldiers' wives and children, 164; inhabitants, 4864; being upwards of two-fifths of the whole population. The greatest mortality

was on the 9th of October, on which day 170 died.

Imported contagion has, by many, been assigned as the origin of this devastating disease, and has as generally been believed, but without sufficient grounds: by others, it has been considered of domestic origin, which the facts lately brought before the public by Dr. Bancroft, tend greatly to confirm.

Fevers of the same nature have invariably been prevalent in Gibraltar during the autumnal months; and I well remember, when there in October and November 1799, that several of the Goliath's ship's company were taken ill, and shewed symptoms precisely similar to those I witnessed the succeeding year on board the *Diamond*, in Mahon. My friend, Mr. Gardiner, who has been nearly ten years surgeon of the Naval Hospital at Gibraltar, assures me, that fever always shews itself, *more or less*, in the garrison, during the autumnal months, and particularly so when the rains are slight, and succeeded by hot weather.

Without, at this time, entering into an examination of the causes of this disease, I proceed to lay before the reader two interesting papers, written by gentlemen who were engaged in the scenes they describe. The first was lately sent to me from Gibraltar; the second Mr. Griffiths

kindly drew up at my request. They convey a tolerably accurate account of the symptoms, and also of the general practice in the treatment of this fever.

“ The disease generally comes on like other
 “ fevers, with a slight head-ach, chilliness and
 “ shivering, sometimes sickness at stomach;
 “ pulse from 100 to 130: these symptoms are,
 “ in a few hours, followed by violent pain in
 “ the head, *confined chiefly to the eye-balls and*
 “ *forehead*, back and calves of the legs; *the face*
 “ *becomes flushed, and the eyes have a shining*
 “ *and watery appearance, with a slight degree*
 “ *of inflammation, like those of a person half*
 “ *drunk*; the skin dry, the bowels in general
 “ bound, tongue foul, with a considerable de-
 “ gree of thirst.

“ This is most commonly the first stage of
 “ the disease; but sometimes the patient is seized
 “ in a moment with the violent head-ach, pain
 “ of the back, and the greatest debility, from
 “ being apparently in the most perfect health.

“ In general, when I am called in, in the early
 “ stage of the disease, I order an emetic of an-
 “ timon: tartarisat: or ipecac: that is, when
 “ the patient has sickness at stomach, or an
 “ inclination to vomit, which generally pro-
 “ duces perspiration, and sometimes opens the
 “ bowels also; if it does not, a gentle purga-

" tive must be given. When there is no sick-
 " ness at stomach, I generally order a purga-
 " tive, such as salts, cremor: tartar: or ca-
 " lomel and jalap, with an injection to hasten
 " its operation; when this has operated three
 " or four times, I order small doses of James's
 " powders, such as $\frac{1}{2}$ gr: every two hours, to
 " produce or encourage perspiration, which,
 " with the assistance of cooling drinks, and oc-
 " casionally blisters to the forehead and tem-
 " ples, and nape of the neck, put an end to
 " the disease *about the third day*; when the pa-
 " tient must be supported with broths, wine,
 " and jellies, given in small quantities, and
 " frequently repeated; at the same time keep-
 " ing the bowels regular, and giving occasion-
 " ally small quantities of infusion of bark.

" This is the termination of what we call a
 " mild attack; *but, in many cases, the patient*
 " *goes on thus for four, or perhaps to the fifth*
 " *day, without any bad symptoms*, when his
 " pulse suddenly sinks, his eyes become yellow,
 " bleeding takes place from the nose, mouth,
 " bowels, and sometimes even from the eyes; his
 " neck and arms are covered with small dark
 " coloured spots; there is no secretion or excre-
 " tion of urine; a vomiting of a black matter, like
 " coffee grounds, comes on, with an uneasiness in
 " the chest, and difficulty of breathing, which

“ puts an end to the disease, as you may suppose,
 “ about the fifth or seventh day. In this last case,
 “ we have been very seldom successful; bark, in
 “ different forms, has been used with stimu-
 “ lants, such as wine, brandy and water, laven-
 “ der drops, with hot fomentations to the loins
 “ and region of the bladder, also rubbing the
 “ loins with hot brandy.

“ *In some cases*, the patient is seized from
 “ almost the first moment of his attack, with deli-
 “ rium and vomiting, which soon terminates in
 “ what is called the black vomit, and death takes
 “ place on the second or third day. In this
 “ case, blisters to the head, mustard to the feet,
 “ keeping the bowels open by glysters, and giving
 “ the saline mixture, or any cooling drink, in very
 “ small quantities, has sometimes proved suc-
 “ cessful; and when the fever goes off, the
 “ greatest care is necessary to counteract the de-
 “ bility, as all the convalescents are liable to
 “ faint upon the smallest exertion, even upon
 “ sitting up in bed; this is best done by the
 “ different preparations of the bark, and hu-
 “ mouring the patient with any kind of food
 “ that is most agreeable, in small quantities at a
 “ time, and frequently repeated.

“ *The most characteristic symptom of the*
 “ *disease is the peculiar pain in the forehead and*

“ eye-balls, with the drunken appearance of the
 “ eye.

“ In the after stages, it is known, when
 “ too late, by the black vomiting, suppression
 “ of urine, hiccough, yellow skin, with small
 “ purple or blackish spots, chiefly on the neck
 “ and arms; any one of which symptoms, except-
 “ ing the yellow and spotted skin, is generally
 “ looked upon as fatal. The black vomiting
 “ has been cured, in some instances, by only
 “ wetting the patient's mouth with drink, and
 “ giving repeated injections of cold chicken
 “ broth, without salt; and, in one case, the
 “ patient was cured by drinking capillaire and
 “ water only. The want of secretion of urine is, I
 “ believe, always fatal. The hiccough has been
 “ got the better of by ten drops of laudanum,
 “ and twenty of æther, given every two hours,
 “ for eight or ten hours.”

*Mr. Griffiths's Account of the Fever at Gibral-
 tar in 1804, addressed to me, is as follows.*

H.M.S. Leviathan, April 14, 1813.

“ Sir,

“ I am under the necessity of giving
 “ you the following account of the fever which
 “ prevailed at Gibraltar in 1804, in a very im-

“ perfect and unconnected manner, as, in the
 “ absence of documents, my remembrance, in
 “ so long a period, must of course be very faint.

“ I cannot take upon me to be precise in
 “ point of date, but I think the disease was con-
 “ sidered in its infancy in the beginning of Sep-
 “ tember ; the symptoms were then mild, reco-
 “ veries frequent, and death seldom happened
 “ before the 7th, 9th, or 11th day.

“ In a medical consultation, held about this
 “ time, for the purpose of enquiring into the
 “ nature of the fever, it was declared to be the
 “ usual remittent, incident to the inhabitants of
 “ the place, at the same season ; but deaths be-
 “ coming more frequent than at any other of its
 “ former visits, this opinion was soon relin-
 “ quished, and the disease announced to be
 “ contagious, and of the same type with that
 “ which was then prevailing at Malaga.

“ During the greater part of September, the
 “ Triumph, of which ship I was then surgeon,
 “ was at Cadiz, where the same fever was also
 “ commencing ; and, upon my return to Gib-
 “ raltar in October, I found the daily mortality
 “ greatly increased, averaging from sixty to
 “ seventy.

“ The disease, at this time, had assumed a
 “ very aggravated form, often terminating fa-
 “ tally in forty-eight hours.

“ I find it impossible to relate exactly the
 “ symptoms which occurred in those attacked on
 “ shore, in consequence of the desultory man-
 “ ner I was obliged to attend them ; but the
 “ following cases happening on board the Tri-
 “ umph, afforded me more leisure to observe
 “ the progress of the disease.

“ Mr. L———— was an officer of marines
 “ on half-pay, and had attempted to establish
 “ himself in business at Barcelona, in connec-
 “ tion with a firm in England ; but failing, he
 “ came to Cadiz, and was granted a passage on
 “ board the Triumph, for himself, wife, and
 “ six small children. For more than a week he
 “ appeared to have no other complaint than ex-
 “ treme despondence, arising from a distressed
 “ state. This, probably, disposed him to be
 “ attacked by the reigning epidemic ; upon the
 “ appearance of which, he was immediately re-
 “ moved to a transport lying in the bay, where
 “ I attended him. His symptoms were, as nearly
 “ as I can recollect, as follows:—

“ First stage.—Dejection, slight rigours, las-
 “ situde, and sensation of fatigue ; giddiness,
 “ and pain of the head, with a sense of cold-
 “ ness along the course of the medulla spinalis ;
 “ tremulous white tongue, ferrety red eyes, and
 “ a small, frequent, and somewhat hard pulse.
 “ Second stage.—Aberration of the intellect,

“ faltering speech, anxiety, and a counte-
 “ nance expressive of much anguish. Third
 “ and last stage, excessive heat of skin, com-
 “ municating to the touch the calor mordans,
 “ extreme prostration of strength, tongue swol-
 “ len, hard, and dry; teeth covered with a black
 “ crust, hot and fœtid breath, yellowness of
 “ the skin, and incessant vomiting; a sunken
 “ and intermitting pulse, black stools, singul-
 “ tus, and death within thirty-six hours.”



“ A seaman, who had escaped from French
 “ prison, had travelled through Spain, and ar-
 “ riving near Gibraltar, was refused admit-
 “ tance into the garrison, and ordered to per-
 “ form quarantine in an open boat on the neu-
 “ tal ground, whither he had his provisions
 “ daily sent to him.

“ After having undergone the necessary pro-
 “ bation, he was taken on board the *Triumph*,
 “ was fresh clothed, and every prophylactic em-
 “ ployed that could ensure his safety from dis-
 “ ease. He continued in good health and spi-
 “ rits for more than a fortnight, when he was
 “ attacked in the same manner as the forego-
 “ ing case, with this difference, that there was no
 “ yellow suffusion of the skin; and that petechiæ

“ and vibices covered the whole body, a few
 “ seconds before death, which did not take
 “ place till the fifth or sixth day.

“ With respect to the treatment, my memory
 “ goes only to state in a general way, *that in*
 “ *the beginning of September the complaint*
 “ *was evidently considered inflammatory, and*
 “ *many recovered under an evacuating treat-*
 “ *ment*; but, as the number of sick increased,
 “ and the disorder put on an early aggravated
 “ form, the depletory system was entirely laid
 “ aside; but I cannot take upon me to state
 “ what mode was substituted. I believe, howe-
 “ ver, that nothing availed; all seemed horror
 “ and confusion towards the end of October,
 “ when the efforts of the medical practitioner
 “ were principally directed to prevent the dis-
 “ ease extending itself.

“ Though I went with the stream of those
 “ who thought the disease contagious, and eva-
 “ cuations injurious, subsequent reflection, and
 “ a more correct knowledge of the pathology of
 “ the disease than I at that time possessed, con-
 “ vinces me, that in its outset, it was highly
 “ inflammatory.

“ I have been told, that in the treatment of
 “ the sick of one of the regiments (I believe
 “ De Rolls) blood-letting was never had re-
 “ course to; that even purgatives were admi-

“ nistered with caution, that cold affusion and
 “ antimonial emetics were solely confided in,
 “ and that the mortality in that regiment was
 “ conspicuously great.

“ Mr. Burd, the surgeon of the Naval Hos-
 “ pital, was the only person whom I recollect
 “ to have carried on the system of evacuation
 “ extensively; and, though the prejudice against
 “ his practice was great, yet I remember, in a
 “ conversation I had with him, he mentioned
 “ many instances of its success.”

From this period till the autumn of 1810, Gibraltar continued healthy; in the month of September this year several transports, having on board deserters from the French army, arrived from Carthage, under convoy of his majesty's ship *Imperieuse*. Amongst these deserters a fever had appeared, of which some died. They were put under strict quarantine, and a medical attendant having been sent from the shore, was himself taken ill.

About this time between two and three hundred men arrived in a frigate from England, for the purpose of manning a flotilla, and were put on board the *San Juan* lying in the Mole, and many were in a short time attacked with fever; the particulars of which, as reported to me, will be found at page 138.

In the latter end of October, some persons

living in the South, more particularly in the neighbourhood of the place called Scud Hill, were taken ill with a fever, said to be of a suspicious nature, and shortly after several soldiers of the Seventh Royal Veteran Battalion were attacked with a similar disease, which was denominated by their medical attendants "*Bulam*," the same that had prevailed in 1804.

Mr. Kidston, surgeon of this regiment, favoured me, on the application of Mr. Gardiner, with the following outlines.

" The first symptoms of the fever, which
 " made its appearance in the Seventh Veteran
 " Battalion, in this garrison, in October, 1810,
 " were shiverings, succeeded by heat, acute
 " pain across the forehead, sometimes ex-
 " tending over the whole head, pain in the
 " back and loins, great oppression at the breast,
 " pulse quick and full, tongue covered with a
 " black or brown crust, eyes red. On the se-
 " cond day the patient felt easier, the breast
 " and arms were covered with livid blotches,
 " and sometimes the vomiting of a fluid, with a
 " sediment resembling coffee grounds. Death
 " generally succeeded in a few hours afterwards.
 " The medicines found to give most relief, were
 " antimon: tartarisat: calomel and opium.

About the same time that I received the foregoing brief statement of this disease, the follow-

ing, which had been transmitted from Mr. Pym, deputy inspector of hospitals, to Sir Richard Keats, K. B. commanding the squadron at Cadiz, was forwarded to me by my friend Dr. Risk, surgeon of the flag ship.

“ In reply to your letter of this morning, I
 “ beg leave to inform you, that in my opinion
 “ the fever, which prevails on board the trans-
 “ ports from Carthagenæ, *is the contagious*
 “ *fever of the West Indies, known by the name*
 “ *of the Bulam fever*, from its having been im-
 “ ported from that settlement to the island of
 “ Grenada, in the year 1798. *It is the same*
 “ *disease which prevailed in Spain in the years*
 “ *1800 and 1803, and at Gibraltar in 1804.*
 “ Its most violent mode of attack is shivering,
 “ with excruciating head-ach, confined chiefly
 “ to the forehead ; pains in the back and calves
 “ of the legs ; the skin becomes burning hot,
 “ and the eyes have the appearance of a person
 “ intoxicated ; the pulse beats from 100 to 110 ;
 “ then follows thirst, with pain in the region of
 “ the stomach ; no drink can be retained ; there
 “ is an almost constant vomiting, at first of bi-
 “ lious matter, but about the second day, what
 “ is brought up is mixed with a substance re-
 “ sembling coffee grounds, with cold extremi-
 “ ties, clammy perspiration, and relief from
 “ pain ; a few hours after which, death gene-

“ rally ensues. In this violent attack, the
 “ disease terminates on or before the third
 “ day, and is seldom extended to the fifth.
 “ Hæmorrhage from the nose, mouth, and bow-
 “ els is also a very common symptom, with
 “ yellowness of skin.

“ *Sometimes the disease is very mild, and*
 “ *seems to be cut short by the operation of an*
 “ *emetic or purgative.* The disease differs very
 “ materially from the bilious or yellow fever,
 “ which is common in this country during the
 “ summer months ; this last is not contagious,
 “ the pulse is often slower than natural. It is
 “ generally attended with inflammation of the
 “ liver ; is relieved by bleeding, and seldom
 “ runs its course before eight or nine days.

“ The first is contagious ; the pulse is very
 “ quick ; it does not bear bleeding ; generally
 “ terminates before the fifth day, and is very
 “ often attended with the most fatal symptom of
 “ black vomiting.”

The number who were attacked with this disease in the garrison amounted to thirty-eight, of whom twenty-three died.

In the month of September, 1804, a fever of a very alarming nature made its appearance in Carthagenæ ; which, about the middle of October, or rather towards the end, was considered at its height ; and it was not until the end

of January 1805, that it totally ceased. During the prevalence of this malady, twenty thousand souls perished out of a population of about thirty-four thousand.

In 1810 the epidemic re-appeared in this city, carrying off a fourth part of the inhabitants in the course of six weeks or two months.

In the succeeding years, 1811 and 1812, Carthagená was again visited by this devastating disease, and many fell victims to it.

In the month of February 1811 a British garrison had arrived in Carthagená, which, during the prevalence of the epidemic, I understood had suffered much. Conceiving that from this source I might obtain some satisfactory information respecting the fever, which had become the more interesting, from its being considered of the same nature as that which had committed such ravages at Gibraltar, and several other cities in the South of Spain, I obtained the Commander in Chief's permission for that purpose, and embraced the earliest opportunity of proceeding thither; arriving in the beginning of April, where I met with the most hospitable and kind reception from Colonel Prevost of the 67th Regiment, then commanding the garrison, and derived from him much useful information relative to the object of my enquiries. I was, however, disappointed in that

which I hoped to obtain from other quarters. From Don Juan Riseuno, physician of the Spanish Royal Hospital, I received the politest attention, and every information in his power.

Before proceeding with the history of this disease, it will be interesting to take a view of the *medical topography* of the place, which will greatly assist in the future consideration of its nature and causes.

Carthagena is situated at the bottom of a deep bay close to the sea; and several parts of the city are built on the declivities of small hills, inclosed within the walls of the garrison. It is protected to the south-west by high mountains; but to the north-east it is open, and communicates with an extensive valley.

About a mile and a half to the north-east of the city, there is a considerable rising of the ground (where some windmills are erected) which gradually slopes towards Carthagena; in the intervening space is situated an extensive marsh, which was formerly covered by the sea, and contains several hundred acres, surrounding, as it were, the whole land-face of the city, in many places approaching within a few yards of the walls. This marsh is, in many places, intersected by ditches, which were made some time ago, with a view to drain it; but which, however, was not persevered in. Proceeding from

the marsh, there is a ditch, which passes close to the walls, through a deep ravine between the castles of Galleras and Attaleya, and empties itself into the sea at the distance of about two miles. The mountain of Galleras, on which stands the castle of the same name, is situated to the south-west of the city, at the distance of about six-tenths of a mile, and is upwards of seven hundred feet above the level of the sea. Immediately at the foot of this mountain, and between it and the city, is the Naval Arsenal, occupying the whole intervening space, in which there is a bason, capable of containing thirty sail of the line, with suitable magazines for their stores. Nearest to the base of Galleras, and immediately under the road leading up to the castle, are situated the *mast ponds*, which occupy a large space; these originally had a free communication with the adjoining bason; but this is now almost destroyed; and, as they have not been cleaned out for these last twenty years, the water they contain is green and stagnant, and in the summer they emit a most offensive effluvia.

The whole, or greater part of the houses in the arsenal, are built on *made ground*, formed from the earth, &c. dug up in constructing the bason. The scite of the arsenal was formerly covered by the sea. The ascent to the fortress,

on the summit of Galleras, is by a zig-zag road, which, as I have before noticed, is immediately over the mast ponds. On this road, about half way up the mountain, are two small barracks, which were occupied by detachments of the 67th Regiment.

To the north-west of Galleras, about the distance of shell range, separated by a deep ravine, and on a mountain of more elevation, stands the castle of Attaleya. To the south and east of the city, at the distance of a mile and a quarter, is the mountain called San Julian, about 800 feet in height above the level of the sea. On the summit of this mountain the late Major-General Ross caused a work to be erected. The streets of Carthagenæ are tolerably wide and clean. During the summer and autumnal months, regular sea and land winds prevail.

I could obtain no accurate account of the daily height of the thermometer; but was informed, that in August and September, it generally stood at eighty-five degrees of Fahrenheit in the shade.

The seasons at Carthagenæ in their course appear, from the accounts I received, to be conformable to those generally experienced in the Mediterranean; the warm weather commencing in May and June, increasing in July, August, and September; continuing often during Octo-

ber, and, sometimes, for a week or so in November, and remaining temperate through the winter. The heavy rains fall commonly in September, with thunder storms.

The 2nd battalion of the 67th Regiment, under the command of Colonel Prevost, after having been nearly two years at Cadiz, arrived at Carthagená, in excellent health, in the month of February 1811. About the middle of July some slight cases of fever occurred, both amongst the troops and inhabitants; but it was not until August had somewhat advanced, that any alarm took place.

In the beginning of August the 67th Regiment embarked to join the Alicant army, where, however, they continued but a very short time, and returned to garrison Carthagená. During their absence fever had continued to increase in the town, and some of their wives and children, who had been left behind on their sailing for Alicant, had fallen victims to it.

In consequence of these events, the whole of the regiment was not landed; *but detachments occupied the castle of Galleras, and the barracks on the road*; about two hundred were encamped at the foot of St. Julian, who were employed to work on the battery constructing on its summit; the remainder were on board the Leyden troop ship, at anchor in the bay.

The fever first began to shew itself amongst the men quartered in the *small barracks on the road leading up to Galleras*, and it soon extended to the castle, sparing no one. The general, who resided there, was, amongst others, taken ill, and died. The disease continued to increase, and almost every officer and man, quartered in Galleras, or in the barracks leading up to it, were taken ill; the inhabitants suffered in the city equally with our troops. It was not the 67th Regiment alone which felt its ravages, but the Royal Artillery, and a foreign regiment experienced also a loss in proportion to their numbers quartered in Galleras.

While disease continued to prevail to so alarming an extent in this part of the garrison, the men encamped under San Julian, although they ascended it twice a day to work, continued exempt, notwithstanding they suffered considerable fatigue, and were necessarily much exposed to a scorching sun. Not a man there was attacked with fever during the continuance of the epidemic.

In the castle of Attaleya the troops were remarkably healthy, only two or three very slight cases occurring.

Men on board the Leyden, to the amount of upwards of forty, *who had been on shore*, were taken ill; *but in no instance was the disease*

communicated to any of the other soldiers on board, or to any of the ship's company of the Leyden; not a case appearing amongst them.

The number attacked on shore amounted to about two hundred and fifty, and of these about seventy died. Thirty were invalided with chronic diseases, the consequence of the preceding attack of fever; and when I visited Carthagená, two still remained in the regimental hospital, one far advanced in ascites, the other much reduced from repeated attacks of intermittent fever; to which many of the officers and men, who had suffered from the epidemic, were still particularly subject.*

The symptoms did not differ from those described by Dr. Riseuno, in his account of the disease amongst the military and inhabitants; *the severe head-ach, with inflammatory suffused appearance of the eyes, were very conspicuous*; many of the cases were slight, and soon put on an intermittent form.

With respect to the treatment, I could obtain no very satisfactory information; but I understood, that amongst the medical men a consider-

* Shortly after this regiment joined the Alicant army a second time (May 1813); they had upwards of one hundred men and officers ill with intermittent fever.

able diversity of opinion prevailed. At one time emetics, bark, and brandy, were relied on; at others, calomel, in considerable doses, had the preference. I learned from Colonel Prevost, that one man of the 67th regiment had been bled largely from the temporal artery, and soon recovered. Mr. Brown, Deputy Inspector of the Hospitals with the army at Alicant, informed me, that it had been reported to him by an hospital mate, who was stationed at Carthagená during the time the epidemic raged, “that every
“patient who came under his care, on being
“first attacked, and was bled largely, recovered.” With respect to the morbid appearances, my information is equally deficient.

Mr. Rae, Surgeon of the Leyden, transmitted me the following interesting account of this disease, as it appeared amongst the troops remaining on board that ship, who (from the medical officers of the army having full employment on shore) were left under his care.

“From the month of June 1812, in which
“the Leyden arrived in the Mediterranean, little
“sickness occurred on board, or any cases
“worthy of notice, until our arrival at Carthagená, in the end of August following, with
“the 67th regiment; all of whom were detained
“on board, in consequence of an epidemic, or
“*what is there termed the yellow fever*, having

“ broke out in the town and suburbs. From a
“ want of medical men to attend detachments
“ on shore, the charge of those on board de-
“ volved upon me; in consequence of which, I
“ had an opportunity of observing the said
“ fever in all its stages.

“ As we had unavoidable communication with
“ some of the out-posts, several of those em-
“ ployed on that duty brought the complaint on
“ board, *to the number of about fifty*, all of
“ whom, with the exception of one officer whose
“ case was complex, recovered.* By the free
“ use of the lancet, opening the temporal ar-
“ tery, antimonials, sometimes mercurials, re-
“ frigerants, &c. remissions were procured, after
“ which bark completed the cure. *I do not*
“ *think it is contagious; otherwise, it is hardly*
“ *possible that the men constantly on board*
“ *would not have suffered, while unavoidably*
“ *exposed to those who brought it from the*
“ *shore.* I considered it merely as a violent
“ remittent, and the remote cause, marsh mi-
“ asma, arising from an extensive marsh with
“ which the city is almost surrounded; and
“ where not only a putrefactive process of vege-
“ table, but also of animal matter, is constantly

* This officer's case will be found in the Appendix.

“ going on. During a period of nearly four
“ months which we lay at this place, our ship’s
“ company were always in a tolerable state of
“ health, and no deaths occurred, except such
“ as were almost to be expected by the course of
“ nature.

“ On our arrival at Gibraltar, in January last,
“ to refit, a very unfavourable change took
“ place, and numerous cases of fever appeared.”

In a subsequent communication, Mr. Rae adds
the following particulars.

EXTRACT.

“ *I am certain that almost all the cases which*
“ *occurred, on shore or on board, were of the*
“ *remitting or intermitting kind. I did not*
“ *hear of any cases of the three day fever, ex-*
“ *cepting two; one the master of a transport,*
“ *the other a soldier, at the examination of*
“ *whose body (post mortem) I was present.*
“ *The body was of a yellow tinge throughout,*
“ *but more particularly about the face and*
“ *breast; the extremities were covered with livid*
“ *spots; scrotum and penis perfectly so. On*
“ *opening the abdomen, the whole of its con-*
“ *tents were found in a state of high inflamma-*
“ *tion; indeed so much so, that I was almost*
“ *induced to suppose, that the fever had been*
“ *symptomatic of inflammation of the abdomi-*

“ nal viscera. The stomach was nearly divested
 “ of its villous coat, the peritoneal coat and ves-
 “ sels apparently only remaining; towards the
 “ pylorus it was nearly perforated. The stomach
 “ contained a quantity of dark coloured fluid, si-
 “ milar to coffee grounds, which Mr. Campbell,
 “ surgeon to the forces, informed me, constituted
 “ the black vomit, which came on previous to
 “ his death. The liver, &c. partook of the ge-
 “ neral inflammation, but did not appear indu-
 “ rated or diseased.

“ Of the nature of the country, I need not
 “ now inform you, as you have yourself visited
 “ the place; suffice it to say, that Galleras suf-
 “ fered most, the easterly or land winds causing
 “ a stream of effluvia to pass between it and At-
 “ taleya; which effluvia, especially in the night,
 “ was evident to the senses in the entrance of
 “ the harbour. A small redoubt, on the east
 “ side of Galleras suffered much; and few men
 “ stationed there escaped. The village of St.
 “ Lucia, on the east side of the bay suffered
 “ little, though in the vicinity of the burying
 “ ground; and a detachment of men employed
 “ on the works of St. Julian, a height to the
 “ eastward, were in good health.

“ These circumstances clearly point out the
 “ remote cause; and had the soldiers been en-
 “ camped in the country, or heights to the east-

“ward, it is probable many lives would have
“been saved.

“To the best of my recollection, the 67th
“Regiment lost every fifth man, besides women
“and children: this was not the only evil at-
“tending it, as many pale, emaciated figures
“were left, predisposed to relapses or other dis-
“eases. Those who were on board, landed in
“perfect health, greatly envied by their comrades
“who had been on shore; indeed, men taken
“ill on shore, were confident of their recovery
“on board.

“Mr. Campbell, surgeon to the forces, ex-
“erted himself greatly, and procured an hospital
“ship for the convalescents; but the fever had
“gained its zenith before his arrival, so that
“his exertions were often too late.”

The disease, as described by the Spanish phy-
sicians, commences with pain in the head, loins,
and calves of the legs; increased heat and thirst;
white tongue, eyes inflamed, suffused, and pro-
minent; in some, great prostration of strength,
irritability of stomach, and yellow suffusion.
The young, plethoric, and robust, suffer most.

The treatment is in general begun by giving
a purgative of crem: tart: and tamarinds, which
is repeated, if, after *several* visits, it should be
found the first has not operated. In other
cases, where the prostration of strength is great,

the bark, both in substance and tincture, is ordered from the beginning, alternated with warm broth. Cold affusion has been employed, but seldom until hæmorrhagies take place. Sinapisms are applied to the feet, and clysters of sea water much used. Dr. Riseuno mentioned having, in one instance, ordered blood to be drawn, to the amount of 20 ounces, in the quantity of six ounces or so at a time; this patient had severe pain in the head and breast; the abstraction of blood was attended with the happiest effect, and the patient speedily recovered.*

Notwithstanding the many opportunities the Spanish physicians have had of observing this disease, very considerable difference of opinion prevails as to its treatment; while one party (which is indeed the most numerous) coincides in opinion with Aregula, another asserts the superiority of that recommended by De la Fuente. But neither seems to have been attended with much suc-

* The aversion to blood-letting in this disease is very general amongst the physicians of Spain. Aregula condemns both the use of the lancet and mercury (page 216, *Breve description de la Fiebre Amarilla*). In Murcia, however, where the disease has appeared, I was in May last informed, that a physician from Madrid had, by the use of the lancet, saved sixty-nine patients out of seventy in this fever. The one who died, was stated to have applied too late.

cess. To me the first appears *inert*, the second *highly injurious*.

Dr. Riseuno, after several conversations, obligingly favoured me with the following account, which may be considered an epitome of the practice generally pursued, as recommended by Aregula:—

“ My dear friend and companion,

“ I have now the pleasure to transmit
“ you the slight sketch of the epidemical yellow
“ fever, which you expressed a wish to receive
“ after the consultation I had the honour to
“ have with you on the evening of the 16th in-
“ stant.

“ I have attentively observed the “ *fiebre ic-
“ terodes*,” or yellow fever, which has raged in
“ the city of Carthagena, during the years 1804,
“ 1810, 1811, 1812; and I have not the small-
“ est doubt, that the disease was brought to us
“ from abroad.

“ In the year 1804 it was communicated
“ by a Spanish man of war, which left Alicant
“ while the fever raged in that city, from whence,
“ during the same year, it was carried to Ca-
“ diz and Malaga.

“ *In the year 1810 it was brought from Ca-*

“ *dix and Gibraltar*, by an armed coasting vessel; it is not known how it was communicated in the year 1811; in 1812 it was brought from Mazaron.

“ A combination of circumstances peculiar to this place, such as a very numerous population, confined within a proportionably limited extent; the situation of the town, which is low, and surrounded by hills; the very trifling egress of the inhabitants, owing to their unwillingness to leave the place; the excessive mortality amongst the professional men of every description; and the consequent diminution, or rather want of attendance on the sufferers, occasioned the loss of *twenty thousand victims*. The mortality has been very considerably diminished during the succeeding epidemics, in consequence of the above-mentioned causes having been as much as possible removed, although it was still proportionably great.*

“ The disease has invariably appeared with its characteristic symptoms; the patient is suddenly seized with shivering, *an acute pain in the head* or cephalalgia; the *eyes are red*, and a sensation of pain is felt in the region

* The population of Carthagená in 1811 was estimated at 9000 In 1812 rather less.

“ of the *præcordia* ; *lumbago*, and pains in the
“ joints ; and frequently in the lower extremi-
“ ties ; and within a few hours after the attack,
“ the pulse becomes full and greatly accelerated.
“ The tongue is moist, and slightly furred ; in
“ some cases, nausea ensues, which is followed
“ by vomiting ; and the matter brought up is ei-
“ ther bile, or of a bilious appearance ; sometimes
“ it is of a dark hue, or green, and in many cases
“ is followed by great prostration of strength.

“ On the second or third day the patient is
“ apparently free from fever ; but, within a few
“ hours, the bilious vomiting returns, which is
“ usually like coffee grounds, or black, or con-
“ sists of blood, which is, in some instances,
“ also discharged in large quantities from the
“ gums, nostrils, ears, and urethra ; from the
“ vulva in women, in whom it frequently occa-
“ sions abortion.

“ In this stage of the disease some become
“ delirious, others comatose ; some again are
“ restless, and rave incoherently, leave their
“ beds, and lie down in such others as they can
“ find, or on the ground ; in many instances the
“ disease is accompanied by a retention of urine,
“ in others the secretion of that fluid is greatly di-
“ minished ; some are attacked with convulsions,
“ others with hiccough ; but in general all, or
“ the greater part of the above symptoms oc-

“ cur, and are *frequently* accompanied by a yellowness of the skin. If after the seventh day from the attack, this yellowness should make its appearance, together with a diminution of the above symptoms, and a copious perspiration should ensue, the disease sooner or later terminates favourably. *It is seldom found, however, that those recover, who are attacked with these complicated symptoms, enumerated as above, but they are generally carried off from the fourth to the seventh day.*

“ In many instances the disease terminates either in ascites, or some other species of dropsy; sometimes the patient becomes consumptive; and it was remarked in 1804, that when they had attained sufficient strength to walk about, an eruption of large pustules made its appearance; during which period it was also observed, that both sexes were strongly inclined to venery. In the same year the hair of convalescents frequently fell off.

“ The method of treatment varied considerably; some administered emetics, others purgatives; some bled their patients, whilst others had recourse to clysters, tonics, and bark; in other instances, sudorifics were employed; *but the most rational method which has hitherto been pursued, is that which has been recommended by those learned persons*

“ who have written on the subject, and it coincides with the opinion of the most enlightened professors of this city, and is confirmed by daily experience.

“ This method consists in keeping the bowels open by mild and cooling purges, such as pulp of tamarinds and crem: tart: mild emetics have been administered; acids and subacids, particularly those of a mineral kind, have afterwards been freely given. When nervous symptoms occurred, recourse was had to antispasmodics; when looseness took place, the concentrated mineral acids were freely prescribed, and also cold bathing with *fresh* water, to reduce the heat of the skin. When debility began to appear, the tincture of bark was thrown in, to which was added some light cordial mixture, with a view to allay the vomiting which so frequently occurs, administered in spoonfuls, when I remarked the slightest aversion to the tincture of bark. I have administered the bark in substance, in very few cases, as patients strongly object to its use.

“ Several persons, who have seen this disease in Murcia during the last few years, have not failed greatly to extol the bark, asserting it, when given in substance, to be a specific in this fever; but it must be administered (ac-

“ cording to its author, La Fuente), in the
 “ quantity of *two pounds of the powder*, more
 “ or less, which must be taken in forty-eight
 “ hours after the patient is first attacked: this
 “ method may be efficacious; but I have feared,
 “ and still continue to fear to adopt it gene-
 “ rally.

“ *Some have been cured by bleedings from*
 “ *the arm*; others by cooling medicines; and
 “ some by sudorific infusions.

“ I should greatly enlarge this letter, were I
 “ to continue my remarks, as they occur to me,
 “ on the subject of the administration of bark
 “ in substance; I shall only repeat, that I, my-
 “ self, use the tincture, and this in cases of de-
 “ bility, or when the disease is on the decline.

“ Calomel has been given with success, in the
 “ beginning of some cases; leeches have been
 “ applied to the head, and behind the ears: in
 “ cases of delirium or drowsiness, sinapisms were
 “ applied to the soles of the feet, thighs, and
 “ arms alternately; and when these were found
 “ to be ineffectual, blisters to the nape of the
 “ neck were had recourse to.

“ All animal food was proscribed; vegetable
 “ substances were given, such as boiled rice and
 “ panada, to which chicken broth, veal broth,
 “ or beef tea were occasionally added.

“ Such, my dear friend, is the plan of treat-

“ ment adopted in this city, in the cure of
 “ the epidemic yellow fever, a method which
 “ has my full approbation; not that I lose
 “ sight of the advantage to be derived, in the
 “ cases of such patients as are of a nervous
 “ constitution, from friction of the regions of
 “ the stomach and belly with sulphuric æther,
 “ both with a view to mitigate the anxiety, hic-
 “ cough, and other disagreeable symptoms, and
 “ also to allay the vomiting.

“ It would afford me the greatest pleasure to
 “ be able to point out any method of treatment,
 “ which would prove an alleviation to suffering
 “ humanity, under this heavy scourge which it
 “ has been unfortunately subject to; but, my
 “ dear friend, I am reluctantly compelled to
 “ acknowledge, that during the four epidemics
 “ which have prevailed, I have not been able to
 “ fix on any plan, upon which I can invariably
 “ depend, in the treatment of this disease; a
 “ disease, which, from the very first moment of
 “ attack, is of the most malignant nature of
 “ any hitherto known, for which reason it ought
 “ to be combated on its very first appearance;
 “ for mild and simple as it may appear, it is of
 “ a most insidious nature, often appearing with
 “ symptoms, which, if incautiously treated, lead
 “ to many others of a far worse description;
 “ and whilst, under this idea, the effect of the

“ medicine is awaited, before a more correct
 “ judgment of its efficacy can be formed, symp-
 “ toms make their appearance which speedily
 “ deprive the patient of life; whilst perhaps no
 “ remedy has been applied, or, as frequently
 “ happens, if administered, it could not be re-
 “ tained on the stomach of the patient.

“ From a consideration of the foregoing cir-
 “ cumstances, *I am induced to prefer a passive*
 “ *method of treatment*; by which I do not mean
 “ to insinuate, that the physician should be alto-
 “ gether neutral, but that a general plan should
 “ be kept in view; whilst each individual ought
 “ to be treated in a manner the most appro-
 “ priate to his constitution, temperament, age,
 “ manner of living, &c. &c. and under this in-
 “ variable idea, that the mildest, simplest, and
 “ easiest method, is that which is preferred by
 “ nature; particularly in the complaint under
 “ consideration. This has been repeatedly ob-
 “ served, either in the case of those persons
 “ who, being abandoned by their family and
 “ physician, are unexpectedly preserved; whilst,
 “ on the other hand, many of those who were
 “ assisted by physicians, and who took and re-
 “ tained a great quantity of medicines, expired
 “ under this effect, and that of the violent
 “ fever.

“ The general result of my observations is,

“ that it is a disease of a highly malignant cha-
 “ racter, and that it is contagious to the extent
 “ of three or four varas from the body of the
 “ patient; that the infection adheres to clothes,
 “ furniture and wood, which may happen to be
 “ near it; that whoever exposes himself to its
 “ action, and afterwards withdraws himself from
 “ all contact with the contagion, the disease
 “ will, if he be infected, make its appearance
 “ within the space of twenty days exactly; at
 “ the expiration of this period, he is perfectly
 “ safe, unless he again expose himself to conta-
 “ gion. The most serious mischief attends
 “ the removal of patients from one place to
 “ another. I cannot point out any better pre-
 “ ventive against contagion being communi-
 “ cated by clothes, furniture and buildings, than
 “ a free and uninterrupted ventilation, ablution
 “ with sea water, and white-washing the walls
 “ with lime.

“ In some instances recourse was had to fu-
 “ migations with oxygenated muriatic acid gas,
 “ as a preventive, or even as a preservative,
 “ but without effect: *I was constantly sur-*
 “ *rounded with an atmosphere of this gas, whilst*
 “ *in the Military Hospital; the same was the*
 “ *case with several families who, like myself,*
 “ *took the disease.* I will not however deny its
 “ efficacy in other instances, and even in cases

“ of the disease under consideration; but a free
 “ and complete ventilation, is one of the most
 “ certain preventives, as well as the removal
 “ of all excrementitious matter from the apart-
 “ ments of the patients; these two precautions
 “ are not only of a curative nature, but also
 “ tend to the preservation of those who are
 “ healthy, although in the latter point of view,
 “ they are very precarious: the only real and
 “ effectual remedy is in flying to a great dis-
 “ tance. It has been remarked, during the last
 “ few years, that those who remained at a
 “ limited distance have been attacked, contrary
 “ to what happened in 1804, when all those
 “ who removed to the distance of a mile escaped
 “ the contagion.

“ In the year 1804, this fever alone prevailed,
 “ which, like the succeeding epidemics, ceased
 “ when the cold weather had continued some
 “ length of time: bilious and intermitting fevers
 “ have also been confounded with this disease,
 “ all of them having very bad symptoms, and
 “ remaining for a length of time without yield-
 “ ing to the most judicious treatment.

“ In its attacks, this disease spares neither
 “ age, sex, or condition; if any are more ex-
 “ empt than others, they are children, very old
 “ persons, idiots, or madmen. I have remarked

“ that the negroes have it of a milder nature;
 “ but it preys without mercy on the young and
 “ robust, to whom it proves highly fatal, as
 “ well as to pregnant women, whom it causes
 “ to miscarry, doubtless with a view to make
 “ up for the lenity with which it affects the fair
 “ sex in general.

“ Those persons are also exempt from its at-
 “ tack who have actually once suffered it. I
 “ have heard of one or two instances of persons
 “ dying with the yellow fever, who were confi-
 “ dently asserted to have been previously affected
 “ with it; but if this were the case, they are
 “ perhaps solitary instances.

“ The bodies of persons dying with this dis-
 “ ease, are remarkable for their pale yellow co-
 “ lour, and for their having dark or livid spots,
 “ particularly on the back, breast, and scrotum;
 “ erythematous inflammation is also observable in
 “ the stomach and intestines: the liver is enlarged
 “ beyond its natural size; in some instances
 “ the gall bladder is found empty. I have ge-
 “ nerally observed the stomach to contain a
 “ dark coloured fluid, like coffee grounds, in
 “ greater or less quantity. In other instances,
 “ the internal surface of the stomach and duo-
 “ denum are found gangrened. The bladder
 “ is sometimes filled with its natural fluid, when

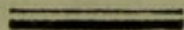
“ the patient has had suppression of urine, but
 “ empty when the secretion of that fluid has
 “ been impeded.*

“ I could wish that your residence in this
 “ city were more protracted, that I might have
 “ it in my power to collect the ideas necessary
 “ for me to communicate to you respecting
 “ this dreadful disease; of this, however, I am
 “ unfortunately deprived.

“ I have always abstained from publishing
 “ any thing on the subject, from a conviction
 “ that I can add nothing to the masterly pro-
 “ ductions of Aregula, Miller, and Rush.

“ (Signed) “ JUAN RISEUNO.”

“ *Carthagená, April 20, 1813.*”



The foregoing is a correct history of the disease and treatment given and followed by the pupils of Aregula: the following extract, from the Journal of Carthagená, called *Economico Politico*, dated August 1812, and which obtained the thanks of the Junta of Health, will

* Dr. Riseuno informed me, that it had not been usual to examine the brain.

at least exhibit the method of cure in a new point of view.

EXTRACT.

“ All parties agree that the essential character of the yellow fever is the genuine typhus icterodes, as it is termed by Sauvages. *This consists in a great rise in the pulse during the first two or three days; after which it declines without the occurrence of any critical evacuation: this is succeeded by debility, a very small pulse, and universal yellowness, without a heated skin, or a quick pulse. In order to form an accurate conception of this fever, whose ravages have been so fatal in Spain during late years, it must, after the plan of the abovementioned Sauvages, be divided into two or three distinct stages.*”

“ *First Stage.*”

“ During this, it is remarked that the diffusion of the *deleterious stimulus* which produces the yellow fever, is always followed by shivering; *a full and frequent pulse, which is generally very hard; the heat of the body does not exceed 102 degrees of Fahrenheit; the breathing is short; tongue moist, furred*

“ and white, or brown towards its centre; on
 “ the second day the thirst is moderate, the
 “ belly neither hard or tense. This fever con-
 “ tinues for the space of two days, without in-
 “ termission, and terminates on the third day
 “ by a slight perspiration. During the first
 “ day the patient is generally drowsy, and in
 “ much pain, attended with lowness of spirits
 “ and fainting. *The face and eyes are flushed,*
 “ and the latter cannot bear the stimulus of
 “ light; *the blood appears highly inflamed and*
 “ *buffy*: on the second day the patient becomes
 “ very restless, but is free from pain; the stools
 “ are hard and black, and he is light-headed
 “ and watchful. The urine, which is discharged
 “ in great quantity, is thin, and without any
 “ sediment during the first day; turbid on the
 “ second; and on the third day bloody, deposit-
 “ ing a grey sediment; in the course of this last
 “ day the pulse becomes weaker, and the heat of
 “ the body is greatly diminished, without the
 “ intervention of any critical evacuation; the
 “ debility increases greatly, the eyes acquire a
 “ yellow tinge, and the first stage concludes.”

“ *Second Stage.*”

“ During this stage the pulse is slower, softer,
 “ and nearly imperceptible; the heat of the body

“ varies little from its natural state ; the pa-
 “ tient sometimes complains of cold. The yel-
 “ lowness, restlessness, and vomiting increase ;
 “ the face, breast, and extremities acquire a
 “ livid hue ; the breathing becomes slower ; the
 “ tongue is cleaner, and red ; the vomiting is
 “ sometimes so violent, that the patients can re-
 “ tain nothing on their stomachs ; at one time
 “ discharging nothing but blood, and at others
 “ bringing up black and putrid bile ; watch-
 “ ing, delirium, and restlessness ensue ; the
 “ pulse diminishes in strength, and the *redness*
 “ *of the eyes increases*, although unaccompa-
 “ nied by pain ; the yellowness, in many cases,
 “ is not observed during this stage of the dis-
 “ ease, excepting in the eyes ; a few hours,
 “ however, before death takes place, it extends
 “ to the face, breast, and neck ; which parts
 “ are usually covered with black or red spots :
 “ in women the menstrual discharge is accele-
 “ rated, and becomes more copious ; the blood
 “ is generally so much thinner than usual, that
 “ it is freely discharged from almost all the
 “ emunctories ; the patients sometimes become
 “ distracted, at other times they are affected
 “ with diarrhœa, voiding, with great pain,
 “ black liquid, or indurated fæces ; the urine
 “ of those patients who turn yellow, is copious
 “ in quantity, and of a saffron hue ; but in
 “ other cases it is colourless.”

“ Third Stage.”

“ If, during the preceding stage, the vio-
 “ lence of the above symptoms should abate,
 “ and the functions of nature in some measure
 “ recover their tone, some hope of recovery
 “ may be entertained; but if, on the contrary,
 “ the former become more violent, and the lat-
 “ ter still further deranged, death will almost be
 “ inevitable: no doubt, however, can be enter-
 “ tained of this event, when the face loses its
 “ animation, and becomes of a leaden hue, or
 “ the face and neck covered with black spots,
 “ and these, with the breast, with a profuse
 “ perspiration. An effusion of blood takes
 “ place from the nostrils, mouth, and ears;
 “ swallowing becomes difficult; hiccough, con-
 “ vulsions, drowsiness, and continual delirium
 “ ensue, and finally, twelve hours before death,
 “ the loss of the voice and pulse,* which por-
 “ tend the termination of this fatal tragedy.
 “ *Should the season be hot*, this dreadful dis-
 “ ease seldom extends beyond the third day.

“ I have already stated the yellow fever to be
 “ a disease of the most putrid and malignant
 “ nature of any which attacks the human frame ;

* This does not coincide with general observation.

“ and, from this circumstance ought to be drawn
 “ the principal indication, for the prompt adop-
 “ tion of the most appropriate and safe method
 “ of treatment: on this principle all the best
 “ modern practitioners are agreed; notwith-
 “ standing, however, this concurrence as to the
 “ nature of the disease, they differ so much from
 “ each other, as to the best method of treatment,
 “ and their attempts have hitherto proved so
 “ unsuccessful, that it may be justly said, that
 “ they are better acquainted with the manner in
 “ which this dreadful disease ought not to be
 “ treated, than the best method of curing it.

“ Emetics, diaphoretics, purgatives, or su-
 “ dorifics, are the medicines which have gene-
 “ rally formed the basis of this method of treat-
 “ ment, and have divided the opinions of prac-
 “ titioners, but to so little purpose, that they
 “ all candidly acknowledge the inefficacy of the
 “ plan which they follow, and are content with
 “ supporting that system which they deem the
 “ least unsuccessful. It is astonishing how few
 “ of them have spoken of antiseptics, or in what
 “ a hesitating and timid manner they have been
 “ mentioned; particularly bark, the principal
 “ and most direct of them, and that which com-
 “ bines within itself the qualities of the most
 “ powerful antiseptics, and consequently (if any
 “ such exist) must be the genuine specific,

“ which is most to be depended upon for the
“ cure of this disease, provided it be adminis-
“ tered with the activity, speed, and perseverance,
“ which the urgent nature of the disease re-
“ quires; and also that it be given in those re-
“ peated doses which are pointed out in the se-
“ quel; as this is absolutely requisite, from the
“ rapid progress of the disease, and any omis-
“ sion or delay that might arise in the exhibition
“ of this excellent medicine, would tend to
“ frustrate its good effect, and bring its efficacy
“ into disrepute.

“ Under this supposition I assert, that as soon
“ as any person, of either sex, may be seized
“ with the first symptoms of yellow fever, they
“ ought, without loss of time, to procure six or
“ eight ounces of good bark, and without delay,
“ or, at all events, within six hours of its first
“ attack, they should begin to take a dose of
“ at least half an ounce of the bark; which
“ quantity should be repeated every two hours,
“ in whatever manner may be most agreeable to
“ the patient: this method ought to be perse-
“ vered in with exactness for the first forty-eight
“ hours after the attack.

“ It is, however, necessary to remark, that
“ this method should be accompanied by a free
“ use of vegetable acids, either in draughts, or
“ in combination with the bark itself; or re-

“ course should be had to the mineral acids,
 “ where the circumstances of the patient render
 “ it necessary ; for it is evident, that these me-
 “ dicines last mentioned, with the bark, are the
 “ most powerful that can be used, with a view
 “ to overcome this dreadful scourge of huma-
 “ nity. To these medicines must be added a
 “ proper regimen of nourishing substances, con-
 “ sisting of panada, chicken broth, or veal broth,
 “ as may be judged proper by the physician.

“ Finally, I ought perhaps to assure you,
 “ that the bark, given in the aforesaid quanti-
 “ ties of six and eight ounces, will infallibly
 “ cure this dreadful disease during the first two
 “ or three days, provided the requisite condi-
 “ tions be attended to in its exhibition ; namely,
 “ that the aforesaid quantity of bark ought to
 “ be used and retained on the stomach during
 “ the first forty-eight hours after the attack ;
 “ and secondly, that its exhibition must take
 “ place as near the commencement of the at-
 “ tack as possible.

“ This assertion, which is as positive as it is well
 “ grounded, besides agreeing with the insidious
 “ nature of the disease, is further considered as a
 “ medical axiom in the writing or memoir, pub-
 “ lished with superior approbation in the year
 “ 1805, by that great medical genius, Don Tadeo
 “ Lafuente, chief consulting Physician to the

“ Royal Armies, who was repeatedly commis-
“ sioned as Inspector of the Public Health, in
“ the district of the Plain of Gibraltar, where the
“ truth of this assertion was proved by nume-
“ rous observations, as well as by many and
“ sound reasons.”

OBSERVATIONS.

In perusing the foregoing accounts of the fevers which have been so prevalent in Gibraltar and Carthagenæ, and on comparing them with the history and cases of those which have occurred in the Mediterranean Fleet, it is impossible not to be struck with the perfect and uniform resemblance they bear to each other; and I now proceed, in a concise manner, to trace their similarity, and shall add such observations as seem necessary in the prosecution of this interesting subject, premising however, that the view I have taken of this disease, as it has appeared in the fleet, has been at the bed-side of the patient; the cases I have given are transcribed *verbatim* from the prescription tickets; the dissections were performed with the aid of the three assistant surgeons, Messrs. Brunton, Cowan, and

Scott; the two first were always with me on these occasions, and the notes immediately made on the morbid appearances presenting themselves.

In the history of the fever of the fleet, it was noticed, that in the early part of summer, the cases were generally slighter, and the gastric symptoms less severe; and that it was not till the autumn that this disease assumed its most dangerous form: the same will be found to be the case in the epidemics of Gibraltar and Carthagenæ, and, I may add, in the other cities of Spain.

The fevers which have appeared in Gibraltar and Carthagenæ have been uniformly declared, by the medical men of these places, to be of the same nature: in this opinion I coincide; and therefore, in my subsequent remarks, shall consider them in the same point of view.

In those which have occurred, whether at Mahon, Carthagenæ, or Gibraltar, the same premonitory symptoms will be found. In some cases, the prostration of strength, and shivering, followed by acute head-ach; in others, the more sudden attack, occasioning syncope, succeeded by violent reaction, then the flushed face, the watery and inflamed eye; the oppression about the precordia; the irritability of stomach; the pain in the back and limbs; in some

the full pulse, in others the small and quick, and as the fever advances, irregular; and in short, a most perfect similarity in the disease whenever the treatment has been alike. The same terminations are also observable, as hæmorrhagies and yellow suffusion, and, in some cases, the black vomit; in those who do not immediately die, the termination in ascites or anasarca, hepatitis, phthisis, and intermittent fever, occurs in each.

The disease which prevailed in the Seventh Veterans at Gibraltar in 1810, was asserted by the greater part of the medical men, to be the same with that which occurred in 1804, and was denominated, by way of distinction, "*the Bulam.*" I have lately been enabled, through the assistance of a friend, to obtain the cases of seven of these men, which he received from the assistant surgeon of the regiment who attended them; and on comparing them with those which have come under my own immediate care, or general inspection in the fleet, it does not appear to me that a shade of difference exists.* These are indeed very deficient, in several points, which it would have been satisfactory to have ascertained; such as the length of time the patients had been ill before they

* Vide Appendix.

complained, their ages, habits, &c. still they give the more prominent symptoms, and in that respect afford sufficient information.

The case of Thomas Nottage is the first on the list; in the surgeon's return he is classed under the head of *Bilious remittent*; though the subsequent four cases, which are denominated "*Bulam*," are declared to have the same symptoms as Nottage.

This man is stated to have been attacked with shiverings, succeeded by great pain across the forehead and back, his eyes inflamed, with dry and hot skin, white tongue, languid pulse, and costive bowels. Surely a nearer description of the fever, as it has appeared in the fleet, (though indeed it might have been more minute) could not well have been given; and I will venture to assert, that whenever a violent attack of this disease is met by a similar plan of treatment, the termination will not be more favourable.

In the case of Edward Robinson, who died on the night of the same day in which he was received into the Regimental Hospital, it is stated, "that on being put to bed, he was instantly seized with the black vomit, and died:" without presuming for a moment to question the correctness of this observation, I may be permitted to say, that I never, either in the West Indies, or the Mediterranean, saw this symptom

occur, but as a consequence of long continued vomiting, or attempts to vomit; and I am supported in this assertion by almost every writer on these diseases. I therefore conclude, that this man had been ill some time before he was received into the hospital.

The cases of Serjeant Inglis, and Gooch, as far as I am able to judge, present nothing extraordinary; indeed they do not bear the features of being very violent. I well know that a severe attack of this fever will not yield to such a plan of treatment. If there be no better evidences of the prevalence of a *nova pestis* in the Garrison of Gibraltar than these, the medical world will hesitate in believing that the *Bulam* existed there in 1810. I much doubt whether Dr. Chisholm will recognize, in either of these cases, a single member of that family.

I may here remark, that the disease I have met with in Mahon during the autumnal months, in my opinion, very closely resembles the yellow fever of the West Indies; which I agree with Dr. Lind in considering the autumnal fever of all hot countries. I see the same symptoms at the commencement, and during its progress; the same terminations, and appearances on dissection. *Early* and *liberal* evacuations have been found *highly* beneficial in the treatment of both diseases. Thus then there is a parity of

symptoms, of terminations, appearances on dissection, and in the operation of remedies. *

* The following excellent picture of the yellow fever, is from the pen of Dr. Grant of Jamaica, extracted from a valuable little tract he published in 1805; which will be found to correspond nearly with the severer cases of autumnal fever in Mahon.

“ Symptomata pathognomica febris flavæ ut plurimum sunt
 “ vehemens et gravis capitis dolor, vertigine crebrô comitante,
 “ aspectus confusus et rubore incandescens, albi oculorum vascu-
 “ cula sanguine turgida et indistincta, circa præcordia oppressio
 “ laboriosa, lassitudo generalis et magna virum prostratio cum
 “ doloribus lumborum et surarum, pulsu frequentius debili et
 “ instabili—nimia plenitudinis et distentionis speciem, et sanguinis circuitum imperfectum systema generale præfert.
 “ Hæc est constitutionis prima conditio jam jam memorata, et
 “ depletio et sanguinis missio, quantitatem sanguinis minuendo,
 “ actionem solidorum restaurando, cum omnium symptomatum
 “ remissione, capitis dolorem mitigant et sanguinis stagnationem interpellant.

“ In secunda constitutionis conditione firmitate corporis pol-
 “ lenti, symptomatibus supra dictis, pulsus est ferme plenus,
 “ fortis et aliquantum durus, interdum verò coarctatus et compressus, et arteriæ carotidæ externæ magnopere micant, in
 “ hac conditione ubi est tanta accreta actio vascularis, si morbo
 “ non immediate occurritur depletione, et præsertim libera sanguinis missione, febris complures horas gradu homotono cursum percurrit, deinde pulsus fit mollis et ut in sanitate regularis, et cutis temperiem naturalem assimilât. Hæc sunt
 “ insidiosa signa et fallacia, in pulsum intermissionibus, delirio,
 “ ventriculi aucta irritatione, singultu, tendinum subsultu, naribus et ore hæmorrhagiis, extremorum frigore et omnibus
 “ concomitantibus in mortem præproperam terminantia. Paulo
 “ post febris exordium, ventriculi irritatio difficillime mitiganda
 “ accedit. In initio bilis pura flava ventriculo ferme prorumpit,

In the epidemics which I have seen in the Mediterranean, the attacks are not alike violent

“ deinde colore infecta cæruleo, et per nimium corrosiva, de
 “ qua ægrotus faucium excoriatione, et ventriculi ardore mul-
 “ tum conqueritur.

“ Febris progressu, materies ventriculo ejecta, ad nigrum
 “ colorem magis ac magis vergit, fæcibus coffeæ adustæ simi-
 “ lem, filamentis nantantibus, quæ, ex muco, abrasionibus ven-
 “ triculi tunicarum, in quibus sanguis extravasatus putridus
 “ involvitur, componi videntur.

“ Bilis in febre flava ejecta, multò minus est in quantitate,
 “ quam quæ ejicitur in febre biliosa, vel in hujus febris mitiore
 “ statu, typoclarius vel distinctius remittentis.

“ Ægrotus non semper, sed plerumque est sitiens, et aquam
 “ frigidam proprinare obsecrat.

“ Linguae superficies est firmè humida, et pelli alba tecta,
 “ sed citò, febre prævalente in colorem feruginosum, et ultimò
 “ adustum et nigrum vertente. In initio secundum febris sta-
 “ tum, vesicæ lotium plus minusvè fucatum est, et in processu
 “ pullum et parva quantitate mictum, Excrementa alvina, post
 “ evacuationes primas constipatione fætidas, minus inodora
 “ redduntur et fusca et liquida evadunt, sed cursu febris, nigri-
 “ cantia et ventriculi ejectionibus assimilia.

“ Die tertio aliquandò quarto, pervaro quinto oritur suffusio
 “ flava circum os, et ad tempora extenditur. Genæ ex colore
 “ rubescente fiunt lividæ et flavo tinctæ, et labia purpurascunt
 “ et nigrescunt. Hic color aureus pectore et extremis velociter,
 “ progreditur, ventriculi irritabilitas, cum ejectionibus et dejec-
 “ tionibus, adustæ coffeæ fæcibus similibus ante dictis incre-
 “ cit, ore naribusque profluvis. Oculorum vascula indistincta
 “ et flavedine sunt suffusa.

“ Die quinto (nonnunquam citius) sexto vel septimo, et ali-
 “ quando spatio longiore, singultu, delirio, multa præcordiis
 “ oppressione et comate urgentibus, vitam æger morte com-
 “ mutat.”—(*Tractatus Febre Flava*, p. 12, 16.)

in all; undoubtedly the severity of the complaint will be in proportion to the exposure to the remote, or the application of the exciting cause, the habit of the patient, or his susceptibility of receiving the disease; much will also depend on the plan of treatment which is adopted; but, it is not in the Mediterranean alone, that slight cases appear; in the epidemics of America, the physicians speak of their "slight cases of fever;" and in the West Indies, *cases purely ephemeral occur*. "In a great majority of the patients affected by the epidemic, however," (says Dr. Gillespie) "the symptoms were by no means so violent as have been described; exhibiting in some, the appearance of a simple ephemera, going off in the course of twenty-four or thirty-six hours, by a profuse perspiration; whilst in others, the character of a remittent was evident, accompanied by catarrhal affections, and going off by a diaphoresis and expectoration." At page 43, he adds, "In the most acute cases, the disease took a turn during the course of the third day, and terminated the first stage of the disease; but the more ordinary duration of the first stage was until the commencement of the fourth day." Again, at page 46; "For though there were many instances of the fever being prolonged to fourteen, twenty, and even twenty-seven days,

“ and having a fatal termination ; such instances
 “ were rare, *and were the translation of the*
 “ *disease to the lungs, causing peripneumony,*
 “ *or to the intestines in the form of diarrhœa.*”

The similarity of the fevers of the West Indies to those which appeared amongst our troops in the Netherlands, did not escape the attention of Sir John Pringle, and at pages 198 and 199 there is a note from Dr. Huck, in the sentiments of which, except in that part which refers to the medicines operating as emetics, I entirely coincide: it is as follows; “ Even
 “ in the most ardent and worst kinds of the
 “ yellow fever, I think a paroxysm may generally be perceived once in four and twenty
 “ hours; for the patient is commonly worst
 “ towards the evening, or at night. *And if the*
 “ *yellow fever were to be distinguished in the*
 “ *beginning, from the common remitting or*
 “ *intermitting fever which was so fatal to our*
 “ *army, it was only by all the symptoms running higher, and by a greater degree of*
 “ *fever when one might have expected freer*
 “ *remissions.* Both fevers began with nearly the
 “ same symptoms; sometimes, though rarely,
 “ with a shivering. But whenever the fever
 “ ran high, with burning heat, violent pains of
 “ the head and loins, profuse sweats without
 “ relief, *redness and burning pains of the eyes,*

“ *inflamed countenance, watchfulness, anxiety,*
 “ *oppression, and burning pains about the præ-*
 “ *cordia, frequent vomitings of green and yellow*
 “ *bile, or (what I think was worse) a constant*
 “ *retching to vomit without bringing up any*
 “ *thing, or vomiting the drinks only, one might*
 “ *then almost certainly foretel the yellowness;*
 “ *and if this appeared on the second, third, or*
 “ *fourth day, the disease was generally mortal.*
 “ *I have often seen patients labouring under*
 “ *most of these symptoms, immediately relieved*
 “ *by early evacuations, and the fever brought*
 “ *to intermit. Nay, I have more than once seen*
 “ *this fever, with all these symptoms, carried*
 “ *off by bleeding, and exhibiting, within a few*
 “ *hours from the first attack of the disease, a*
 “ *medicine which operated pretty briskly both by*
 “ *vomit and stool; and I have known some of*
 “ *these very patients, who were so well as to go*
 “ *abroad on the second or third day after, and*
 “ *who continued well for four or five days; but*
 “ *on committing some error, such as exposing*
 “ *themselves too much to the sun, were again*
 “ *seized with the same symptoms, and died on*
 “ *the fourth or fifth day, with their skin tinged*
 “ *of a deep yellow or copper colour. Hence I*
 “ *am apt to think, that there are different de-*
 “ *grees of the same disease, and that it some-*
 “ *times depends upon the manner the patient is*

*“ treated in the beginning, whether he shall
 “ have the yellow, or only a remitting or inter-
 “ mitting fever.”*

The plan of treatment which the medical practitioners of Gibraltar and Carthagenæ have adopted, appears to be alike, and their success has been synchronous. At Gibraltar, in 1804, nearly half the population died. The same was the case at Carthagenæ ; and, I may add, during that year, in the southern cities of Spain, forty-five thousand, eight hundred and eighty-nine fell victims to this devastating disease.* With respect to the treatment therefore, little need be said ; it has been any thing but successful.

The physicians, and other medical men in both these places, have in general asserted, and no doubt believe, that the fever is of a contagious nature ; that it has always been imported, and has been propagated both by persons and goods. This is a question of the most serious import, and should not be lightly decided upon. On the one hand, if it be not contagious, much unnecessary alarm is occasioned ; patients, who might otherwise have recovered, are deserted by their nearest relatives ; commerce for the time destroyed ; and individuals frequently suffer great distress. If it be a contagious fever, it would be

* See Aregula's account of this fever.

doing the greatest possible injury to the community, to allow this disease to proceed, without using every means in our power to arrest its progress; to draw a line between the healthy and the infected, the living and the dead.

At this remote period, it is perhaps impossible to ascertain, with any degree of accuracy, the credence which should be given to the story, respecting the disease having been brought to Gibraltar, in the year 1804, by a man from Cadiz, of the name of Sancho, or one from Malaga, of the name of Santos: I have myself heard these stories; but I have never yet met any one who could tell me more, than that it was common report. Dr. Bancroft, in his valuable Essay on the Yellow Fever, has gone into this question very much at large; and, having examined the evidences with no common ability, rejects them as contradictory, and refuting each other. If it were the case, that this disease was so readily received and propagated by communication with the sick, and that either of the men mentioned brought it from Malaga or Carthagenæ, how came it that the officer from Cadiz, or the seaman from Malaga and Gibraltar, did not introduce it into the Triumph? The account given by Mr. Griffiths of these persons' cases, leaves not the smallest room to doubt their being of the same nature with the disease then prevailing in Cadiz

and Gibraltar; they were both cases of the worst description, and though the officer, on being taken ill, was removed, and died in a transport, yet the seaman continued on board the *Triumph* during his whole illness, a period of six days, and died there.

This man's name was George Richards; and on examining Mr. Griffiths's Journal at the Transport Office, I find his case recorded. He was taken ill on the 29th of September, had the usual symptoms, such as irritability of stomach, petechiæ, yellow suffusion, suppression of urine, and black vomit; and died on the 4th of October.

In addition to this, I have to mention, that the *Conqueror* of 74 guns, anchored in Gibraltar Mole about the 18th of September, 1804, and continued there several days. Three days after going to sea, William Collins, a marine (whose case I have extracted from the Journal*) was taken ill, and died on the third day, with all the worst symptoms of the prevailing disease; yet *in neither of these ships was a single man affected.*

It is worthy of remark, that the surgeons of the before-named ships, had no doubt of the con-

* See the Appendix.

tagious nature of the fever; and the observations of the surgeon of the Conqueror to that effect, subjoined to the case, are well entitled to notice.

Here then are three well authenticated instances, wherein the disease (and that too of the most unfavourable kind), was received, and brought on board two men of war, where the patients died, and yet no contagion followed.*

In 1810, it was stated to have been derived from some deserters from Carthagená, who arrived in transports from that place. I have every proper respect for the character of the gentlemen who assert this to have been the case; and, on any other occasion, which did not involve a matter of opinion, I could not for a moment refuse to accept their *ipse dixit*; but they must excuse me if, in the present instance, I hesitate in receiving it: I want proof; and surely those who have propagated the story, ought not to be slow in offering it. The transports, immediately on their arrival, were put under quarantine, and continued under that restriction the whole of the time disease prevailed on board. How then was it conveyed from thence? I fancy no one can

* I have been credibly informed, that several instances of the same kind took place in merchant ships during the fever of 1813.

answer this question. They were anchored, at the distance of at least half a mile from the garrison, probably more; and it will require no moderate share of credulity, even from one who has no doubt of the contagious nature of the disease, to believe that it could be conveyed, through the medium of the atmosphere, to such a distance.

The circumstances mentioned at page 137 will probably afford the reader a more satisfactory explanation of the cause of the fever in the garrison in 1810, than the hackneyed story of the Hankey. The deluges of rain which had fallen, sweeping with them, from the higher grounds, the putrid animal and vegetable matters, had in fact produced the perfect form and essence of a marsh; and the easterly winds * and hot sun acting on

* The effect of an easterly wind on the health and spirits of the inhabitants of Gibraltar, is well known to every one who has visited and resided in that place. During its continuance the air scarcely circulates in the town, and almost every one you meet, complains of lassitude and uneasiness of breathing; while on Europa Point, where the air is clear, and circulates freely, all is life and spirit. I have myself often felt this, and have been quite renovated after a ride, or walk, to Europa in the evening. While the epidemic of 1804 prevailed, several families lived in tents, in that part of the garrison, and escaped the disease. In the epidemic of 1813, the south has been particularly favoured, as may be seen by reference to the table annexed. Easterly winds prevailed for some months before this disease made its appearance in 1813, which has, in general, been milder than in 1804. A gentleman of

these materials, were soon followed by the malady in question.

ability and experience informed me, that "He thought, had application been made early, seventeen out of twenty might have been saved." He mentions having attended nine persons in one house, and four in another, without having lost one. Surely we must hear no more of the *Bulam* after this.

Total Number taken ill, as well as those who have died at Gibraltar, from the first Appearance of the Disease, till the 5th of November, 1813.

New cases in the				Total.	Deaths in the				Total.
Lazaret	Town	South	Military Hospital		Lazaret	Town	South	Military Hospital	
627	595	64	1200	2486	318	204	10	339	863

After the 5th of November very few cases occurred, the disease having been, for some time, rapidly on the decline.

Extract of a Letter received from a Medical Gentleman, one of the Members of the Board of Health, dated at Gibraltar, the 7th of November, 1814.

"Do not suppose I consider this the *Bulam*, or imported fever. No, my dear friend, the disease was engendered by an excessive population, houses crowded and filthy beyond all possibility of conception. For months I called the attention of the Board of Health to this subject: I repeatedly told them, that while we were sitting to devise means to keep out the plague, the seeds of disease had taken deep root within."

I have been informed from the best authority, that upwards of fifty individuals were, on an inspection, found living in one small house.

If the fever had been of a nature so contagious, will it be credited, that after getting into a barrack, it would have stopped short, with only attacking thirteen men? Truly this would be a very accommodating contagion; one, half so civil, I have never before heard of. And I may be allowed to ask also, how it was, that none of the attendants, or others in the hospital, were attacked with this "*Bulam?*" The reply is obvious; the disease was the product of paludal effluvia, generated from putrid animal and vegetable substances, assisted by moisture and a hot sun, and retained in its situation by easterly winds; a refreshing north-west wind came, and, scattering the noxious vapours over the face of the waters, restored health to the garrison.*

Respecting the supposed introduction of this fever into Carthagená, in the year 1804, it is generally believed in that city, that it was brought by a Spanish man of war from Alicant; but I could get no precise account how this took place. Before proceeding further, it may not be considered irrelevant to the subject, to take a cursory view of the former state of the public

* This also was observed in the fever of 1813. On the wind coming to the westward with rain, an immediate decrease in the numbers taken ill was evident.

health in this city, particularly, and in a more general manner, of that of the adjacent sea ports on the shore of the Mediterranean.

Dr. Blane states, in his letter to Baron Jacobi, that—" This disease (the yellow fever) shewed
 " itself first on this side the Atlantic, at Cadiz, in
 " the year 1764 ; again in 1800 ; and in Malaga
 " in 1803." The occurrence of a fever, which was often epidemic, in Malaga and Carthagenas, before that period, I presume the Doctor was unacquainted with.

Mr. Townsend, in his " Journey through
 " Spain" (a work, which, in point of accuracy, yields to none), has the following passages ; speaking of Carthagenas :—" Of diseases, the
 " most endemical, are intermitting, and putrid
 " fevers ; these arise from the proximity of an
 " extensive swamp, containing many hundred
 " acres, which might be easily drained, so as to
 " produce the most luxuriant crops. In this
 " year (1785), during the autumnal months,
 " they lost two thousand five hundred persons ;
 " and the succeeding year, two thousand three
 " hundred. That I might have no doubt of the
 " nature of the disease, he" (Dr. Masdeval, a physician, who was sent from Madrid by the Court, to direct the proper treatment), " re-
 " lated the usual symptoms, such as in the be-
 " ginning, a remarkable prostration of strength,

“ with intense pain, both of the head and back ;
“ intolerable thirst ; the tongue foul, dry, black,
“ and chapped when protruded ; pulse hard,
“ small, quick, and intermitting ; parotid glands
“ swelled ; urine limpid at first, but turbid in
“ the progress of the disease ; respiration diffi-
“ cult ; the white of the eyes become red ;
“ petechial spots on the arms and breast ; hands
“ trembling ; watchfulness at first, followed by
“ a propensity to sleep perpetually, without con-
“ sciousness of having slept ; delirium ; noise
“ in the ears, followed by deafness ; involuntary
“ tears ; quivering of the lip ; and if the pa-
“ tient were ill-treated, death” (Vol. III. p.
136). At page 23, Mr. Townsend, when enu-
merating the diseases of Malaga, mentions that—
“ In the year 1786 more than three thousand
“ died in the hospital of San Juan di Dios,
“ besides multitudes in the city and environs, of
“ tertian and putrid fevers. In Barcelona the
“ same diseases were very prevalent in 1784 ;
“ and in Barcelonetta and the citadel, fevers
“ never cease to rage, leaving behind in the win-
“ ter, dropsies and jaundice, and in the sum-
“ mer, producing malignant fevers. The same
“ diseases reign beyond Montguich, in the
“ low country, watered by the Lobregat ; but
“ although the prevailing wind, in its passage

“ becomes loaded with miasmata, yet being diverted from its course by that high mountain, it has no baneful influence on Barcelona.”

There is certainly in these accounts no mention made of the “ yellow suffusion,” which has of late years been so much noticed; it is, however, probable such a symptom did occur, yet was forgotten by one of the parties in their description of the disease, particularly as it is remarked, that the fever left behind it “ *jaundice and dropsies.*” It is likewise well known, that the “ yellow suffusion” is more an incidental than an essential symptom, as many severe cases occur without its appearing; *and when evacuations are early and sufficiently had recourse to, it is but rarely seen at all.* This description otherwise applies exactly to the more modern disease. In those days the “ *Bulam*” mania had not arisen, and it was not thought necessary to look for an *exotic origin*, for what was known to be a *local disease*. Amongst other circumstances which were mentioned to me while at Carthagená, relative to the fever which prevailed there in 1804, the following, which I received from the best authority, and by the gentleman’s permission, made a note of in his presence, places the non-contagious nature of it, in a very strong point of view.

I have before mentioned that the disease ceased on the 23d of January, 1805, on which day the last patient was received into the Royal Hospital. *On the fifth of February following, a French frigate, having on board the wounded of the Arrow Sloop, which she had captured a few days before, after a gallant resistance, arrived in the harbour; the wounded were immediately landed, and placed in the same bed and bedding, in which several patients, who had died of the prevailing fever, had lain, without the bed or bedding having either been washed, or aired; yet not one of these men was attacked with the disease in consequence.** I may also remark, that a blacksmith, who worked in Carthagená, but whose residence was at some distance without the walls, contracted the disease, and died in the same bed with his wife; yet neither herself or their children were infected.

From 1804-5, till 1810, there does not appear to have been any remarkable sickness in Carthagená; but in the latter year the "*yellow fever*" (as it has been named) swept off three thousand, being a fourth of the whole inhabitants, in the course of six or eight weeks, during which

* This has also been confirmed to me, by an officer of the Arrow Sloop, who was a prisoner with his shipmates.

time it prevailed. There is a circumstance, in accounting for the appearance of the fever this year in Carthagená, which will shew how little dependence is to be placed on the accounts, which are propagated respecting the importation of disease. Dr. Riseuno positively asserts, that the fever was brought from Cadiz and Gibraltar in 1810; *while at the last place it is stated to have been imported from Carthagená!* Now, the "*Bulam*," as it was called, did not make its appearance in Gibraltar, till after the middle of October in this year, and the disease had been then prevalent in Carthagená, upwards of a month! The inhabitants of Cadiz were perfectly healthy up to the middle of September, and before that time many deaths had occurred at Carthagená. But even supposing the disease to have been contagious, its existence in Cadiz this year, was never unequivocally declared. It is impossible therefore that it could have been derived from either of these sources, had it been of a nature to be conveyed by persons or goods.

In 1812 this ill-fated city was again afflicted; and it was officially stated in the Gibraltar Chronicle (27th February, 1813) on the authority of the Board of Health of Carthagená, "that it had been characterised by its usual

“ symptoms, and that two-thirds of those taken ill died.” Dr. Riseuno states, that the fever was this year brought from Mazaron.

Its progress at which time amongst the troops who were quartered there,* leaves no doubt as to the cause of the disease. The whole of the sickness in the 67th Regiment, took place at Galleras; which has uniformly been remarked as the most unhealthy situation about Carthage. Every evening during the summer, the miasma is carried by the land wind, from the marsh directly on Galleras; to which are added, in its course, the exhalations from the mast ponds, and that which will be extricated by partial rains, succeeded by a hot sun, from the general scite of the arsenal. So offensive were these exhalations, that some of the officers declared to me, that they could scarcely respire out of doors after sunset. In the morning the castle was enveloped by a dense vapour, which did not disperse till the sun attained some height; the effluvia from these sources was even perceptible at the entrance of the harbour. St. Julian being on the opposite side of the harbour, is entirely out of the line of the marsh air, and there the men, though much exposed to causes,

* See from page 165 to 172.

which often of themselves produce sporadic cases of fever, continued perfectly healthy. Attaleya, which is also out of the line of the marsh air, remained very healthy during the whole time. In the Leyden, lying in the Bay, nearly fifty of the 67th Regiment were attacked, and, except one, they all recovered on board; *only such men, as by going on shore, were exposed to the influence of the marsh air, were taken ill, and they did not communicate the disease to a single person on board.* In the fleet, in no instance, have the surgeons considered, or said, that the disease was contagious.

With such powerful evidence of the non-contagious nature of this disease before me, I cannot but conclude, that it is neither propagated by persons or goods, but is the genuine product of miasmata. It is useless for any one to say, in support of its contagious qualities, that whole families have been attacked; this only proves, *that whole families have been exposed to the same remote cause.* In Zealand, nearly whole regiments were taken ill with the fever, yet no one was hardy enough to assert that it was contagious.

From these circumstances will be seen, how unnecessary, and unavailing it is, to impose a

quarantine, to prevent the propagation, or introduction, of such a disease; and while we applaud the removal from the influence of the marsh miasmata, *as the only certain prophylactic*, we cannot but smile at the hand, who by a feeble barrier, would attempt to set limits to its ravages.

APPENDIX.

CONTAINING

- 1st. *Cases of Fever in the 7th Veterans, at Gibraltar in 1810.—
Surgeon's Return of the Number taken Ill.*
 - 2d. *Case of the Gibraltar Fever in the Conqueror.*
 - 3d. *Case of an Officer of the 67th, on board of the Leyden at
Carthagen.*
-

APPENDIX No. I.

STATE OF NEW YORK, 1850.

APPENDIX.

LETTER FROM THE GOVERNOR.

THE GOVERNOR OF THE STATE OF NEW YORK, in compliance with the provisions of the Act, passed on the 14th day of March, 1849, relating to the publication of the reports of the various officers and boards of the State, has the honor to submit to the Legislature the following reports:

1. Report of the Governor, on the State of the State, and on the Administration of the Government, during the year 1849.

2. Report of the Board of Regents of the University of the State of New York, on the State of the University, and on the Administration of the Board, during the year 1849.

3. Report of the Board of Supervisors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

4. Report of the Board of Directors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

5. Report of the Board of Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

6. Report of the Board of Auditors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

7. Report of the Board of Tax Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

8. Report of the Board of Land Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

9. Report of the Board of Canal Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

10. Report of the Board of Marine Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

11. Report of the Board of Agriculture of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

12. Report of the Board of Education of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

13. Report of the Board of Health of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

14. Report of the Board of Charities of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

15. Report of the Board of Penitentiaries of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

16. Report of the Board of Prisons of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

17. Report of the Board of Asylums of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

18. Report of the Board of Hospitals of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

19. Report of the Board of Dispensaries of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

20. Report of the Board of Medical Officers of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

21. Report of the Board of Surgeons of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

22. Report of the Board of Physicians of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

23. Report of the Board of Apothecaries of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

24. Report of the Board of Dispensaries of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

25. Report of the Board of Hospitals of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

26. Report of the Board of Asylums of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

27. Report of the Board of Penitentiaries of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

28. Report of the Board of Prisons of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

29. Report of the Board of Charities of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

30. Report of the Board of Education of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

31. Report of the Board of Health of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

32. Report of the Board of Agriculture of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

33. Report of the Board of Marine Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

34. Report of the Board of Canal Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

35. Report of the Board of Land Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

36. Report of the Board of Tax Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

37. Report of the Board of Auditors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

38. Report of the Board of Commissioners of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

39. Report of the Board of Directors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

40. Report of the Board of Supervisors of the State of New York, on the State of the Board, and on the Administration of the Board, during the year 1849.

41. Report of the Board of Regents of the University of the State of New York, on the State of the University, and on the Administration of the Board, during the year 1849.

42. Report of the Governor, on the State of the State, and on the Administration of the Government, during the year 1849.

APPENDIX No. I.

STATE OF THE DEATHS AND RECOVERIES

IN THE

7th Royal Veterans

IN THE

FEVER of 1810, at GIBRALTAR.

<i>Date.</i>	<i>Name and Symptoms.</i>	<i>Treatment.</i>
Octr. 11th.	Thomas Nottage, attacked with shiverings, great pain across the forehead and back, <i>eyes inflamed</i> , skin hot and dry, tongue white, pulse languid, bowels costive.	R Calomel: grs: iv. Extract: cathart: grs: xv. M statim sumend: <hr/>
12th.	Pain in the back increased, and shooting down the lower extremities, great thirst, tongue yellow and dry in the centre, petechiæ on the breast and arms.	R Pulv: antimon: grs: iij. Camphor: grs: iv. M: sumend: tertia hora. <hr/>

<i>Date.</i>	<i>Name and Symptoms.</i>	<i>Treatment.</i>
13th.	Stationary.	Port wine.
14th.	The whole body of a dusky yellow, delirium, nausea, pulse hardly perceptible.	Pulv: cinchon: 3 ij tertia hora in port wine.
15th.	Died at 4 A. M.	Repetatur ut antea H: S: gr: i opium.
Oct ^r . 24th.	William Preston, attacked in the same manner as the preceding; violent pains in the thighs and legs, <i>inflamed eyes</i> , &c. &c.	Calomel: grs: v statim.
25th.	Bowels open, pains in the back and limbs increased, the whole body covered with livid blotches, tongue black and dry, pulse low. Died at half-past one A.M.	Pulv: cinchonæ 3 ij tertia hora in port wine.
Oct ^r . 25th.	James Barton, attacked in the same manner, and had the same symptoms, only the addition of great oppression on the breast.	Calomel: grs: v statim. Empl: cantharid: pector:

<i>Date.</i>	<i>Name and Symptoms.</i>	<i>Treatment.</i>
26th.	Breast and arms covered with large livid blotches, pains continue.	Pul: cinchon: 3 ij tertia hora in port wine.
27th.	Singultus, pains little abated, <i>eyes very red</i> , tongue and lips black, skin hot and dry.	R Camphor: grs: iv Pulv: antimon: grs: iii. M: i. tertia hora
Eveng.	Vomited a fluid resembling coffee grounds, pains lessened, pulse low, pain at the pit of the stomach.	Port wine.
28th.	Died at 2 A. M.	
Oct ^r . 27th.	Edward Robinson, attacked in the same way as the preceding, but when brought to the hospital, unable to articulate; was almost instantly on being put to bed seized with the black vomit, and died on the 28th, at 4 in the morning.	
Oct ^r . 29th.	Sergeant Hardiman, attacked as usual; great oppres-	Antimon: tartarisat: grs: iij statim.

<i>Date.</i>	<i>Name and Symptoms.</i>	<i>Treatment.</i>
	sion and nausea, <i>eyes inflamed</i> , &c. &c.	H.S: calomel: grs: v. —
30th.	Respiration difficult, pulse feeble, vomited a large quantity of bile, and had several foetid stools.	Emplast: cantharid: pector: ℥j mist: camphor: tertia hora.
31st.	Died. The whole body as usual turned of a dusky yellow, with livid blotches on the breast, legs, and arms.	
Oct ^r . 29th.	Sergeant M. Inglis, attacked in the usual manner; great pains across the forehead, back and lower extremities, tongue dry and yellow, bowels costive, eyes red.	Antimon: tartarizat: grs: iij statim. Calomel: grs: v H:S: —
30th.	Stationary.	R Calomel: gr: j. Pulv: antim: grs: iij. M: i om: tertia hora
31st.	Pain in the head much lessened, pulse feeble, tongue moist on the edges.	— Repetatur pulv: ut heri.

<i>Date.</i>	<i>Name and Symptoms.</i>	<i>Treatment.</i>
Nov ^r . 1st.	Stationary; bowels open, skin moist.	Repetatur. _____
2d.	Pulse more natural, tongue and skin moist, bowels regu- lar, pain in the head entirely removed.	Repetatur. _____
3d.	Much better.	Repetatur. _____
4th.	Continues to recover. N.B. This and the follow- ing man were in the laza- retto.	Pulv: cinchon: 3j tertia hora port wine. _____
		Continued this last till this morning.
Oct ^r . 28th.	Francis Gooch, attacked in the usual manner, and had the same symptoms.	Antimon: tartarisat: grs: iij. statim. H:S: calomel: grs: v. _____
29th.	Tongue moist, but yellow, bowels rather costive, pain in the head less. Took the calomel and an- timonial powder, until his re- covery.	Repetatur calomel: grs: v.

<i>Names.</i>	<i>Symptoms and Treatment.</i>
James Walley. — Miens. Darby Fergusson. Richard Green. James Knight. Joseph Webb.*	These six were attacked with the same symptoms, and all recovered under the same treatment as Sergeant Inglis and Francis Gooch.

“ The lancet was used only in one instance, where
 “ the patient complained of difficult respiration; he
 “ was shortly afterwards seized with spasms, and
 “ died the same night.

“ *The cold affusion was not recommended*, but I
 “ tried it in one case in the Lazaretto, on a Spanish
 “ Friar, who remained insensible for several days,
 “ with all the worst symptoms except the black
 “ vomit; the effect of it was profuse perspiration:
 “ at the same time, he took the antimonial and
 “ calomel powders, with the camphorated mixture,
 “ till all the symptoms were removed.

“ *None of the bodies were examined after death.*”

* This last man appears by the Surgeon's Return to have died.

RETURN of the Men who were seized with the FEVER, in the 7th Royal Veteran Battalion, from 11th to 30th October, 1810, after which no Case occurred.

Men's Names.	When seized.	When Convalescent or Dead.	Dead.	No. of Days.	Cases in which the Black Vomit occurred.	Nature of the Fever.	Remarks.
Sergeant M. Inglis . . .	29th October	5th November	—	8	—	Bulam	
James Barton	25th October	28th October	Died at 3 A. M.	3	Occurred	Bulam	
William Phillips	28th October	29th October	Died	2	—	Bulam	
Francis Gooch	28th October	3d November	—	7	—	Bulam	
William Muir	2d November	14th November	Died	13	—	Bilious remitting	
Benjamin Hague	6th November	13th November	—	7	—	Bilious remitting	
James Walley	28th October	8th November	—	11	—	Bulam	
John Lucas	28th October	6th November	—	9	—	Bulam	
Thomas Nottage	11th October	15th October	Died	5	—	Bilious remitting	
Darby Ferguson	19th October	5th November	—	9	—	Bulam	
Richard Green	22d October	25th October	—	4	—	Bulam	
James Knight	30th October	13th November	—	15	—	Bulam	
James Jeffreys	7th November	13th November	—	7	—	Bilious remitting	{ Taken ill in the Hospital.
William Harvey	15th October	4th November	—	20	—	Typhus	
William Preston	23d October	26th October	Died	4	—	Bulam	
Sergeant Hardiman . . .	29th October	31st October	Died	3	—	Bulam	
Joseph Webb	28th October	31st October	Died	4	—	Bulam	
Edward Robinson . . .	27th October	28th October	Died	at 5 next morning.	Occurred	Bulam	

Abstract.—

Bulam	13	died	6
Bilious remittent . .	4	died	2
Typhus	1	—	0
	—		—
	18		8

Gibraltar, January 22, 1811.—Since the 30th October, five cases of the Bilious remitting Fever have occurred, but no case of the Bulam.
Signed, J. KIDSTON, Surgeon 7th Royal Veteran Battalion.

APPENDIX No. II.

*Copy of a Case of Fever, extracted from the
Medical Journal of H. M. Ship Conqueror,
referred to, at page 259.*

MALIGNANT FEVER.

September 20th, 1804, at Sea. William Collins, marine, aged 26.

Vomiting and griping, languor, debility, pulse quick, small and hard; pain in the head, back, and extremities; eyes full, heavy, and a little yellowish; tongue furred with a dark dry fur; griping pain in the bowels, accompanied by vomiting.

R Ipecac: pulv: grs: xx antimon: tartarisat
grs: ij statim: sumend.

A. M. Vomiting abated; griping continues, but is very costive.

R Calomel: grs: v pulv: jalap: grs: x stat:
sumend.

28th. Violent griping, has had no stool; pulse fluttering, great debility, dejection of spirits, petechiæ on various parts of the body; vomiting at times.

R Natron: vitriolat: ℥jss manna ℥j infus:
sennæ ℥ v.

M. Capt: cochlear: larg: secunda quaque hora, donec alv: responderit.

A.M. Has had four motions, and his bowels appear much relieved from the griping; the stools were dark and very offensive; urine high coloured, respiration difficult, pulse intermits, great languor and debility.

R Camphor grs: iv pulv: antimon: grs: ij calomel gr: j confect: aromat: q: s: ft: bolus tertia: q: q: h: s: superbi bend: infus: cinc: horæ.

29th. Had a very restless night, pulse now 143; tongue dry and parched, sighs much, eyes dull and heavy; a profuse hæmorrhage has just issued from the nose and mouth.

Sept. 29th. Died.

SURGEON'S REMARKS.

This case appeared evidently to be a *typhus putrida*, and was, no doubt, of the same nature as the fever at Gibraltar, as this young man (who was of a full habit of body) went on shore several times at Gibraltar, and was observed to mix with the inhabitants very much. Three days after we sailed he was attacked, and died the third morning after about eleven o'clock. A few minutes before his death, he was attacked by a violent hæmorrhage from the nose and mouth; suddenly turned yellow, then black, with a violent shivering, and departed.

APPENDIX No. III.

*Case of Carthagenæ Fever, treated on board
H. M. S. Leyden, by Mr. Rae, Surgeon.*

October 20th, 1812. Captain A. M. ætat 35, of a slender habit of body, and infirm constitution, having suffered considerably from disease in tropical climates, complained this morning of pyrexia, intense head-ach, with a hot dry skin, frequent pulse, rather weak, furred tongue, thirst, nausea, costiveness, pain of back and limbs, and general uneasiness. Was seized last night, and ascribes it to exposure to the sun. Not doubting his complaint to be of the prevalent remitting kind, and aware of the sudden debility which frequently occurs, I did not think it prudent to bleed him; but, as an alternative, strong refrigerants were given:—viz.

R Aceti nitrosi ℥j tertia q: q: hora sumend.

R Hydrarg: submuriatis grs: vj pulv: jalap: grs: xv fiant pilulæ tres stat: sumend.

Decoct: hordei c potassæ nitratis ʒj in sing: libris pro potu commune.

21st. Pills operated indifferently, head-ach less during the night, but aggravated this morning, pyrexia nearly the same.

R Hyd: submuriatis grs: ij pulv: antimon: grs: iij fiat pil: secunda quaque hora sumend: Repetatur acet: nitros: ʒj tertia quaque hora potus ut heri.

22d. Passed an indifferent day and night, head-ach continues, pyrexia nearly the same, nausea, and vomiting of bile.

R Pil: hydrarg: grs: v tertia quaque hora: haust: salin: effervescens p: r: n: sumendus. Decoct: hordei ē potassæ nitratis pro potu commune.

23d. Head-ach still continuing, with a firmer pulse; last evening the temporal artery was opened, and about ten ounces of blood taken away, which relieved his head-ach; and there being nausea and vomiting, a blister was applied to the region of the stomach: this morning somewhat better, though there is still considerable fever, nausea, and vomiting; pulse firm, mouth slightly affected.

Detrahantur sanguinis ex arter: temporal: ad ℥j.

Omittan: pillulæ.

R Succ: limonis ʒss potassæ subcarbon: ʒj spt: æther: nitrosi gtt: xxx aquæ ʒj ft: haust: tertia quaque hora sumend: affricr: femora ē ungt: hyd: fort: ʒss. Potus acid: vegetab:

24th. Head-ach was much relieved by bleeding; being troubled with acid eructations, small doses of magnesia carbonas were given, and decoct: hordei in lieu of the acid drink. Having had many bilious evacuations during the day, an anodyne was given at bed time, which procured some rest: to-day the fever abated, but the nausea and vomiting continued in some degree.

Repetatur frictiones bis die, habeat haust: salin: p: r: n: decoct: hordei ad libitum pro potu commune c̄ potass: nitratis ʒj in sing: libris.

25th. Would not submit to the frictions yesterday, or take any medicines whatever; mouth slightly affected, eructations gone, nausea continues, with retching at intervals.

Repetatur frictiones, bis die, acidulated drink to be repeated.

26th. Temper become so irritable, that it is with great difficulty he can be prevailed on to admit of any means essentially necessary to his recovery; pyrexia very considerable, and no evident remission hitherto; nausea less; however he will take no medicine internally, bowels open.

Repetatur frict: et potus acid: vegetab:

27th. Continues nearly the same, no remission, occasional nausea and vomiting, though less than formerly; however he still refuses to take any medicines, or submit to the frictions.

Repetatur ungt: hyd: bis die.

R Ol: ricini: ℥j mane sumend: in haust:
aquæ ē spt: lavend: compos: gtt: aliquot.

28th. Was with great difficulty prevailed on to take the oil, which was attended with good effect; evacuations green and foetid; had a short remission in the evening.

R Aq: fervent: ℥j potassæ supertart: ℥j
sachar: purificati ℥j misce pro potu commune
de die, injiciatur: enema aperiens pro re nata.

29th. Had a remission last evening again, during which he was prevailed on to take a little bark in decoction; several evacuations of a dark greenish appearance and foetid.

Repetatur frict: et enema: p: r: n.

De remissione repetatur decoct: cinchonæ
spt: lavend: c:

Sago and wine.

30th. Two dark coloured scanty evacuations, procured by enemas; a remission last evening, during which he took about ℥ij of decoct: cinchonæ, with some sago and wine. This morning another remission, pulse 84, and soft; skin cool, tongue foul but moist, languor and indolence of motion, cannot bear to be disturbed, slight ptyalism, will not submit to the frictions.

R Decoct: cinchonæ ℥ij spt: lavend: c: gtt:
xxiv fiat haust: secunda quaque hora de remissione sumendus.

Repetatur enema et potus potassæ supertartratis.

Gruel and wine.

Omittan: frict: hydrarg:

31st. An exacerbation during the day, had two enemas, which procured several bilious evacuations; a remission in the evening, which continued all night; has taken about ℥j of decoct: cinchonæ with some wine and gruel. This morning skin cool, pulse 82, and soft, tongue foul but moist.

Repetatur cinchona secunda quaque hora, mist: c̄ camphoræ et spt: lavend: composit:

Repetatur enema pro re nata.

Sago and wine.

Nov. 1st. An exacerbation took place with a cold fit at 2 P. M. a hot stage ensued, but no sweating; remission about 11 P. M. which still continues; pulse 82, and soft, tongue foul, but moist, lowness and depression of spirits.

R decoct: cinchonæ ℥ij trā: colomb: ʒj confect: aromat: gr: x haust: quaque hora sumend:

Repetatur enema p: r: n: ante accessionem febris, capiat haust: anodyn: volat:

Sago and wine ad libitum.

2d. A paroxysm commenced again about 2 P. M. some incoherency during the last stage; about 10 P. M. a slight degree of perspiration,

at 11 the remission complete. Tried the bark in substance, but his stomach could not bear it; bowels kept open by means of enemata; pulse 80, but soft, tongue loaded but moist, languor and drowsiness.

Repetatur omnia ut heri.

3d. Paroxysm commenced about 7 o'clock last evening with a cold fit, and went through the successive stages, the last rather indistinct; remission at midnight, took acidulated drink during the paroxysm; but one scanty bilious evacuation during the night, and another in the morning, by means of an enema. To-day very low and spiritless, cannot bear to take medicine, or be roused from his drowsy state; pulse 82, of good strength, tongue loaded, skin cool.

*R decoct: cinchon: ʒij trā: colombæ ʒss,
confect: aromat: gr: x. mist. camphoræ ʒij.
secunda vel quaque hora sumend:*

Repetatur enema p: r: n:

Sago, gruel, &c. ad libitum.

4th. Paroxysm commenced at 11 P. M. and went through the successive stages; perspiration more general, remission about 4 A. M. had two evacuations, one from an enema, and another from p: rhabarb: ʒss which was mixed with his bark, but not without producing nausea, and returning. This morning nearly as yesterday.

Repetantur omnia.

5th. Had an enema last evening, which procured two copious evacuations, still dark and rather fœtid; paroxysm commenced soon after midnight, and remission about 4 A. M. sweating stage not very distinct.

Repetantur omnia.

6th. Continued easy during the day, and slept well in the night, no return of fever; in the evening was troubled with hiccough and eructations, which were relieved by a draught of *magnesia carbonas* ℥j, and *aquæ menthæ pip:* ʒj. Had several loose evacuations, stomach rather irritable, and unable to retain the bark.

R acid: sulphur: dilut: gtts: xv quarta quaque hora sumend: in cyath: aquæ.

Sago, gruel, soups, &c.

Repetatur enema si opus sit.

7th. Continues to do well; a slight epistaxis during the night, which soon ceased of its own accord; bowels kept open by enemas, as he has a loathing for all kind of medicine; stomach less irritable to day.

Rept: acid: sulph: dilut: quartis horis.

Gruel, soups, with a moderate quantity of wine.

Repetatur enema pro re nata.

8th. Continues to do well; tongue clean, pulse 82, and soft, skin cool, and perfectly free from fever.

Repetatur acid: sulph: dilut:

Soups, gruel, and wine bib .

9th. Passed a very good day, and had several loose dark coloured evacuations; a degree of feverishness commenced this morning at two, which still continues, though somewhat abated; pulse 92, of good strength, skin hot, tongue dry, but little or no thirst.

R Hydrarg: submuriatis, pulv: antim: \bar{a} \bar{a}
grs: iv: mane sumend.

Solut: supertart: potassæ pro potu ordinaria.

10th. Pyrexia continued until about four o'clock this morning, when a remission took place; medicine operated well, and the successive stages of the paroxysm were distinctly marked.

R Decoct: cinchon: ʒiij acid: sulph: gtt: x
fiat haust: quaque hora sumend:

A little gruel and wine.

11th. Paroxysm commenced with slight rigors yesterday evening at half past nine, and went through the several stages until midnight; when it again remitted. Took two pills of extr: colocynth: comp: cum hydrarg: submuriat: which did not operate; and towards the evening, had a dose of pulv: jalap: \bar{e} supertartrat: potassæ, which produced several very dark foetid evacuations; since the remission has been using the cinchona as prescribed yesterday.

Quando febris intervenit, R hyd: submuriatis grs: ij pulv: antimon: grs: iv secunda hora sumend:

Solutio supertartratis potassæ pro potu commune.

Injiciatur enema pro re nata.

12th. Several free stools since yesterday, and during the night, of a more natural appearance; paroxysm about half past nine P. M. and remission about eight. This morning free from fever.

R Decoct: cinchon ʒij acid: sulph: dilut: grs: vj haust: secunda quaque hora sumend: cum træ: opii gtt: vj.

Gruel and some wine.

Quando febris intervenit, repetantur pill: hyd: submur: et pulv: antimonial: cum potus solut: supertart: potass:

13th. Paroxysm commenced with a shivering at 4 P. M. remission at 2 A. M. bowels open, appetite tolerable.

Repetantur ut antea.

A little sago and wine.

14th. Paroxysm at 4 P. M. less severe than the former; remission at 12.

Repetatur cinchon: et acid:

Injiciatur enema pro re nata.

Repetatur pilulæ pro re nata.

Sago and wine.

15th. Paroxysm last night at 8, and remission at 2 A. M. Mouth considerably affected.

Omittantur pilulæ.

R Decoct: cinchon: ℥ij træ: colombæ ℥ijj
mist camphoræ ℥ij ft: haust: tertia quaque hora sumendus.

Repetatur enema si opus sit.

Sago, gruels and wine.

16th, No paroxysm last night, and to-day quite easy, only for the ptyalism, which is rather severe; bowels open, appetite tolerably good.

Repetantur omnia ut heri.

17th. No return of fever, and perfectly easy in every respect except from the ptyalism; pulse 90, bowels regular.

R Ol: recini ℥j mane sumend: in haust: aq: menthæ pip.

Repetatur cinchon: pro re nata.

Sago, soups, &c.

Injice enema si opus sit.

18th. Oil operated well; mouth nearly the same.

Repetatur decoct: cinchonæ, &c.

Sago, gruels, soups, &c.

Vin: ℥j utat: garg: mellis acetati pro ori.

19th. Continues nearly the same; mouth still much affected; pulse 90; takes occasionally some gruels, soups, &c.

Repetatur cinchon: et enema pro re nata.

23d. Little alteration since the 19th; now refuses to take the bark, or any medicine whatever; in consequence of which he had a paroxysm last evening about 10 o'clock: bowels open; ptyalism somewhat less, pulse frequent and less irritable.

Gruels, soups, &c.

25th. Paroxysm returned last night, strength more impaired, ptyalism less, bowels open; refuses all medicine, and subsists on a little gruel and wine; countenance pale and bloated, pulse frequent and weak.

26th. Paroxysm again last night; becomes daily weaker, and still refuses medicine; pulse 116, even during the remission; takes a little gruel and wine occasionally.

27th. No paroxysm last night; however he rested very indifferently; pulse frequent and weak; sunk into a lethargic state, from which he will not suffer himself to be roused; seems quite resigned to his fate, and still refuses medicine.

Habeat jus: Bovin:

29th. No paroxysm since last report; continues still in a sort of indolent state, and will not be roused, although his only real complaint is debility. Still refuses medicine, and takes very little nourishment. Pulse intermitting.

Sumatur quicquid vult.

30th. Paroxysm to day at 11 A.M. bowels regular, and ptyalism almost gone; however he still refuses medicine, and takes very little sustenance.

December 1st. No return of fever, and seems on the whole better; pulse firm, and less frequent. Took some tea and bread this morning, but still refuses medicine.

5th. This morning went on shore nearly in the same state, as he continued to refuse all medicine, and took very little sustenance of any kind.

He continued to refuse all medicine, and resist every means used for his recovery; he thought his time was come, and was therefore contented to die.

After lingering for a few days, he died dreadfully emaciated.

WILLIAM RAE, *Surgeon,*

H. M. S. LEYDEN.

THE END.



46

