

Observations upon the bulam fever which has of late years prevailed in the West Indies, on the coast of America, at Gibraltar, Cadiz, and other parts of Spain : with a collection of facts proving it to be a highly contagious disease / by William Pym, Esq.

Contributors

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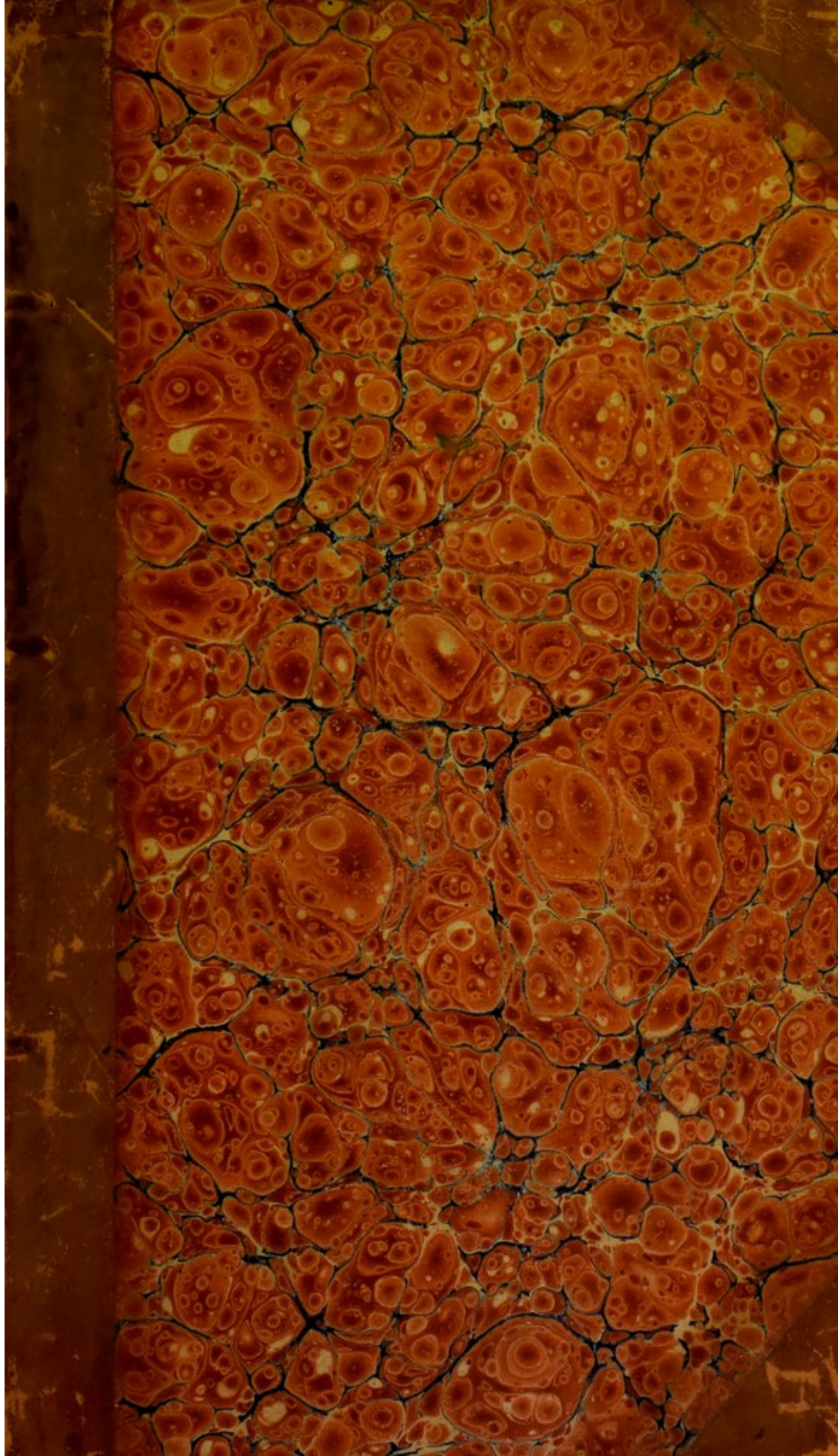
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OBSERVATIONS UPON THE BULAM...
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OBSERVATIONS

ON

THE RHEUMATISM.

AND ITS CONNECTION WITH

THE GOUT.

BY

JOHN H. B. B. B. B.

OF THE UNIVERSITY OF

EDINBURGH.

HIGHLY CONTAINING A

REVIEW

OF THE

THEORY OF

THE DISEASE.

BY

JOHN H. B. B. B. B.

EDINBURGH,

PRINTED BY J. B. B. B. B.

IN THE STREET, OPPOSITE THE

UNIVERSITY OF

1811.

OBSERVATIONS

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OBSERVATIONS
UPON
THE BULAM FEVER,
WHICH HAS OF LATE YEARS PREVAILED IN THE
WEST INDIES,
ON THE COAST OF AMERICA,
At Gibraltar, Cadiz,
AND OTHER PARTS OF SPAIN :
WITH A COLLECTION OF FACTS
PROVING IT TO BE A
HIGHLY CONTAGIOUS DISEASE.

BY
WILLIAM PYM, Esq.
DEPUTY INSPECTOR OF HOSPITALS,
LATE SUPERINTENDANT OF QUARANTINE,
AND
PRESIDENT OF THE BOARD OF HEALTH
AT
MALTA.

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TO THE
MEDICAL OFFICERS
OF
HIS MAJESTY'S NAVY AND ARMY.

GENTLEMEN,

With the view of preventing a recurrence of the miseries and mortality which have been produced in different parts of the world, particularly in the Navy and Army, in consequence of erroneous opinions respecting the nature of the Bulam, commonly called Yellow Fever, the following pages are, with respect, submitted for your perusal, by

Your most obedient,

Humble Servant,

THE AUTHOR.

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PREFACE.

A FEVER, under the name of Yellow Fever, Mal de Siam, Fievre Matelotte, &c. has at different periods prevailed, not only in the West Indies and North America, but in the South of Europe : before 1793, however, it had not made its appearance for a considerable time, either in the West Indies or America, and had been unknown in Spain for nearly thirty years ; when an account of a fever, answering its description, was published by Dr. Chisholm, as having been imported into Grenada from the Island of Bulam, on the coast of Africa, and with which, the disease, the subject of the present Treatise, agrees so perfectly, both in history and feature, that I have retained the name of Bulam Fever, as well with the view of pointing out a distinct disease, as of drawing a line of discrimination between it and the diseases, vulgarly called Yellow Fever.

It has been matter of surprise, that no information has been communicated to the public respecting the Fever

which prevailed at Gibraltar in the year 1804!! As an apology for myself, and in explanation of the very defective sketch which I give of the disease of that year, I think it necessary to mention, that in the year 1806, I had the misfortune to be wrecked in his Majesty's ship *l'Athenienne*, on her voyage up the Mediterranean; when my papers, and every thing valuable which I possessed, went to the bottom: and in favour of the Medical Officers in general, whatever might have been their intentions respecting the publication of their opinion, it is necessary to mention, that they were averted from their purpose by the appointment of a Board of Health in London, selected from the Members of the Royal College of Physicians; with which all Medical Officers, not only in Gibraltar, but in the West Indies, were ordered to communicate; which highly respectable Board was employed for some time in the investigation of this interesting Subject, and had commenced making their reports; when, in consequence of the absence of disease at Gibraltar, during the summer of 1805, and a new administration in 1806, a termination was put to their labours.

Having been more than once witness to the dreadful ravages committed by this disease, and having for several years acted successfully against its influence, I have thought it a duty incumbent upon me to step forward in the cause of humanity, with the view of combating the errors and opinions relating to it, which have been so industriously circulated, even by medical men who have never seen it;

and by a collection of facts and arguments, to convince the most prejudiced, that the disease in question is highly contagious; and, that its mortality may be prevented by the establishment of Quarantine and a good Police.

Having had the advantage of seeing this disease, not only in the West Indies, but in Europe, I have had the good fortune to ascertain peculiarities belonging to it, which were unknown before, particularly that of its attacking the human frame but once, a circumstance of the utmost consequence, not only as relating to the comfort of the sick, but as assisting materially in the regulations necessary to be established, with the view of checking the progress of, or totally exterminating this most terrible of all diseases.

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GENERAL OBSERVATIONS.

*L'art de conserver les hommes est une branche
bien essentielle de l'art de les gouverner.*

THE disease which is the subject of the present treatise, is the Fever which has of late years prevailed epidemically in the West Indies—on the continent of America—at Cadiz, Gibraltar, and other places in Spain; which I shall denominate the *Bulam Fever*; and without entering into any disquisition upon its proper Nosological name, I shall only observe, that it has been generally, but very improperly, termed the Yellow Fever, in consequence of its having appeared most frequently in the West India Islands, where, ever since their discovery, Bilious Remitting and continued Fevers of a very bad type have prevailed; in which, jaundice, or yellowness of the skin, is a very frequent symptom.

The principal object which I have in view, is to counteract the influence which the opinions of Dr. Bancroft have had upon the minds of the public as well as of the profession, by bringing forward evidence to prove, that it is a different

disease from the Bilious Remitting Fever of warm climates; that it is not produced by, nor in any way connected with Marsh Miasmata; that it has not been a constant resident in the West Indies; *that it is Contagious*, and capable of being imported to, and propagated in any country enjoying a certain degree of heat: *that it attacks the human frame but once*, and attacks in a comparatively mild form, natives of a warm climate, or Europeans whose constitutions have been assimilated to a warm climate by a residence of three or four years; and lastly, that it differs from all other diseases, in having its contagious powers *increased by heat*, and *destroyed by cold*, or even by a free circulation of moderately cool air.

I am determined, as much as possible, to avoid all appearance of medical controversy with any of the eminent and learned authors who have written upon this disease, but as Dr. Bancroft has stepped forward as the Champion of non-contagionists, in a treatise of eight hundred pages, I shall unavoidably be under the necessity of frequently referring to his publication, and the numerous quotations from other authors, which he has employed with so much ingenuity in support of his own theory. He has taken a great deal of unnecessary trouble to prove what, I believe, has not been doubted for a great many years, the non-contagion of Marsh fevers. He has also brought forward a mass of evidence to prove that contagious fevers are not generated by accumulations of filth, nor from the offensive vapours emitted by

matters in a putrid state, nor by crowding persons in health in ill-ventilated and unclean places: his labours upon this head, were undertaken under the impression, that the disease in question originated from marsh miasmata, and not from contagion, and upon this rests the grand question in dispute: viz. Whether the Fever which has prevailed so generally, and so fatally, in the West Indies, and America, since the year 1793, and at Cadiz and other parts of Spain, since 1800, is the Endemic Non-contagious Disease of those climates, arising from marsh miasmata, or a disease of foreign origin, endued with peculiarities which distinguish it from all others, and having the power of propagating itself by a specific contagion?

In entering upon this question, it is my intention to give as brief a history as possible of the disease, as I first met with it in the West Indies, and as it afterwards appeared at Cadiz, Gibraltar, and Philadelphia. I think it necessary, however, in this place to remark, that from the unfortunate appellations of Seasoning, and Yellow Fever, used by authors who have written upon diseases of the West Indies, and which they supposed all Europeans must be subjected to soon after their arrival there, we have been led to believe, that only two kinds of fever were to be met with in that climate; viz. the Bilious Remittent, in different degrees of concentration, and the Bilious Continued, or Sporadic Fever—neither of them contagious—the first proceeding from Marsh Miasmata, and the second, from exposure to the heat of the

sun, excess in drinking, and other irregularities. But, in addition to these, a third species has at different periods made its appearance; viz. the Bulam Fever, a contagious disease of foreign origin, and supposed to have been imported from the coast of Africa.

The first variety of the disease assumes such a diversity of forms and symptoms, owing to the constitution of the patient, the heat of the climate, and the degree of concentration of the Marsh Miasmata, that it is impossible at its commencement to draw a diagnosis between it and the two others; as it gets further advanced, however, the skin becomes of a *deep yellow* colour, and if its termination is likely to prove salutary, it shews its characteristic mark by a remission and succeeding exacerbation; and if it proves fatal without evident remission, which in its more violent form it sometimes does, on the second or third day, it is very rarely (if ever) attended with the fatal symptom peculiar to the Bulam fever, viz. the black vomiting and a peculiar bloated appearance of the countenance.

In the second variety, or bilious continued fever, the head-ach is confined chiefly to the temples; the pulse is fuller, but not so quick as in the two others; the yellowness appears very early in the eyes, sometimes from the first moment of attack, and on the second or third day the *whole body is tinged of a very deep yellow*; it is not attended with the same degree of irritability of stomach as

in the first and third varieties; has no remission or exacerbation deserving the name of paroxysm, but runs its course as a continued fever, in from five to fifteen days, and when terminating fatally is not attended with black vomiting.

In the third variety or Bulam fever, there is at the first attack a peculiar shining or drunken appearance in the eyes, the head-ach is excruciating and confined to the orbits and forehead, has no remissions; when it terminates favourably, is very rarely attended with yellowness of skin, which if it does take place, is of a very *pale lemon colour*; it runs its course in from one to five days; is attended with a peculiar inflammation of the stomach, which in most cases that prove fatal, terminates in gangrene, or in a diseased state of the internal or villous coat of that organ, accompanied with a vomiting of matter resembling coffee grounds, and a livid or putrid appearance of the countenance, which it is impossible to describe; but those wishing to form an idea of it, may see what I call its fac simile, in the countenance of any person with a florid complexion, during the burning of spirit of wine and salt, in a dark room, as is practised in the game of Snap Dragon during the Christmas Gambols. In mild cases, however, of this last disease, it is impossible to point out any symptoms distinguishing it from attacks of fever from any cause; and even in bad cases, until the fatal symptoms make their appearance, I may say (excepting its prevailing epidemically) that it is as difficult to decide posi-

tively upon its real nature, as it is in the fever of small pox before the appearance of the eruption.

It is well known that these two first varieties of disease existed in the West Indies, under the name of Yellow fever, ever since the discovery of the Islands, and that history has handed down to us accounts of the third having appeared there at different times; and from being generally supposed to have been produced by imported contagion, went under the names of Mal de Siam—Fievre Matelotte—Vomito Prieto—Kendal's Fever—The New Distemper, &c. The two first are also endemics of the Mediterranean, particularly along the coast of Spain, Italy, and Sicily; and the third made its appearance several times in the course of the last century at Cadiz, viz. in 1736, 1744, 1746, and 1764, from which time there was no appearance of it at that city, nor in any part of the Mediterranean, until the year 1800, when it again shewed itself at Cadiz, was traced to importation, and spread from thence to Seville, Xeres, Malaga, and other places. It appeared again at Cadiz in 1803, but in that year many of the neighbouring villages took precautions against it, and by establishing quarantine regulations, effectually saved themselves from its ravages. During those years it is worthy of remark, that Carthagená, one of the most unhealthy spots upon the coast of Spain, did not suffer from this disease; the inhabitants were visited with their usual Remitting and Intermitting fevers, but the mortality was not greater than in former years; nor is there any

account of this fever having, at any former period, made its appearance at Carthagera, in any part of Italy, Sicily, or Sardinia, although the inhabitants suffer from the fevers produced by mal-aria, as severely as in any part of the world; but differing essentially from the disease in question, in not being contagious, and in attacking natives and strangers indiscriminately and repeatedly—no length of residence, or number of attacks, rendering the constitution proof against them.

Having observed that this disease is possessed of peculiarities distinguishing it from all others, I think it necessary, in this place, to take some notice of them.

It so far appears to be the offspring of heat, that its powers, both of contagion and destruction, are increased by it to a wonderful degree; and it shews a respect for natives of a warm climate, or Europeans whose constitutions have been assimilated to a warm climate, by attacking them in a comparatively mild form. By natives of a warm climate, I mean those born in a degree of heat equal to that within the tropics: I do not rank the inhabitants on the shores of the Mediterranean as coming within this range; for, although they live for some months of the year in a degree of heat equal to from 70 to 80° of Fahrenheit, the cold of winter prevents their constitutions undergoing that change or assimilation which takes place with Europeans, by a constant residence for three or four years in the East or West Indies.

Fatal experience has proved this fact, together with the fallacy of the generally conceived opinion, of the advantages that troops are supposed to derive, from what is called seasoning them to the climate of the West Indies, by being quartered for some time before in Gibraltar.

As the contagious powers of this disease are increased by heat, they are on the contrary destroyed by cold; and in this one particular is quite the reverse of Typhus, this last being destroyed by heat, and increased by cold. The last and most remarkable peculiarity, is its *attacking the human frame but once*; the contrary of this has been asserted by different authors, but since the appearance of the disease in Europe, the fact has been proved to as great a certainty as it has been in the small-pox or measles; and if any doubts before existed with respect to its contagious powers, this one circumstance ought to put the question at rest.

In giving an account of the epidemic as it prevailed at Gibraltar, I shall have an opportunity of mentioning proofs of this peculiarity, which will stagger the faith of the strongest supporters of non-contagion!!

Dr. Bancroft, in mentioning my name (p. 484), insinuates, that I had formed my ideas of this disease, from having read Dr. Chisholm's account of its introduction into Grenada. In reply to which, I must observe, that when I first saw it, which was in the island of Martinique in 1794, I

had not heard of Dr. Chisholm, nor of the ship *Hankey*, which has been the occasion of so much controversy, nor did I hear any thing of the importation of a new disease into Grenada, until my return to Europe in the year 1796; and, in justice to Dr. Chisholm, I think it necessary to mention, that all the circumstances relating to this disease, as I had an opportunity of observing them, not only in the West Indies, but in Europe, tend to strengthen the truth of his first account of it. I shall here mention it as it first came under my observation.

In the year 1794, I was surgeon to a flank battalion commanded by the present Sir Eyre Coote, in the expedition under Sir Charles Grey, which landed in the island of Martinique on the first or second of February. It is unnecessary to describe the progress of the Campaign; I shall therefore only observe, that during the operations requisite for the reduction of the islands of Martinique, St. Lucia, and Guadeloupe, the troops underwent very considerable fatigue, particularly the battalion to which I was attached, having in general been in advance, and taken part in storming all the principal heights in the different Islands; and having been exposed, for nearly four months, to all the changes of climate at that season of the year; frequently bivouacing under temporary wig-wams during the day, and after long marches in the night, having nothing to protect them against the rains and damps but a blanket, which, in addition to a knapsack, every soldier carried upon his back.

During all this time, however, the officers and men enjoyed much better health than they could have expected to have done under the same service in Europe. But after the surrender of Guadeloupe, when the troops employed in the capture of this island continued to enjoy the highest state of health, a dispatch was received by the Commander in Chief from Martinique, informing him that a very bad fever had broken out in the 70th Regiment, and that the surgeon had fallen an early victim to it. I received orders to repair to Martinique for the purpose of taking charge of the regiment; I immediately embarked on board a frigate, and in a few days reached my destination, (Fort Edward, close to the town of Fort Royal,) but not before one hundred and eleven men had been carried off by it.

As I had but lately arrived from Europe, I was of course a stranger to the diseases of the climate, I anxiously made every enquiry at what I thought the fountain head for information, as to the nature of the prevailing malady, and the best method of treating it; my success in this respect, however, was very unsatisfactory. Dr. Clifton, then at the head of the Medical Department, was at a loss as to the nature of the disease; although he had resided many years in the climate, he had never seen it, as he said, in so aggravated a form; but concluded that it was the fever of the climate altered by the fatigues of the campaign. Some of the Hospital Staff conjectured it to be a mixture of Typhus from England, with the Yellow Fever of the West Indies;

and the French Practitioners put it down as a species of Jail Distemper, generated amongst the prisoners before the surrender of the garrison. The French also informed me, that bleeding, in the fevers of the climate, was the only remedy; and the English, that it had been the cause of the great mortality, almost every instance in which it had been tried, having proved fatal. This variety of opinions, even among those long resident in the climate, afforded but little satisfaction to me as a new comer, and left me completely in the dark as to the method of cure; but, from the manner in which the disease spread, I could have no doubt as to the existence of contagion. It originated among three companies quartered in some Casements, or Bomb-proof Barracks, and was for some time confined to them; the men in Hospital, with other complaints were next attacked, and, in succession, the Surgeon and hospital attendants. It was some time before it was communicated to the troops quartered in the barracks upon a more elevated situation in the same fortification; but the moment it laid hold of them, it commenced its ravages; while the only persons in the town of Fort Royal that suffered from the disease, were the officers who had joined the mess, or visited the sick officers of the 70th Regiment.

The first step I had recourse to, was to propose a change of quarters for the regiment, which was immediately ordered by General White who then commanded. The men were encamped upon an airy elevated spot of ground, Point

Negro, close to the sea, about a mile and a half distant from the town, where they experienced an almost instantaneous change for the better; after the third or fourth day, disease disappeared in the camp, where the regiment continued in the highest health for three weeks; before the expiration of which time, I was myself attacked with the disease, in its most violent form, and from which I recovered, contrary to the expectations of the medical gentlemen who attended me; but I was so much debilitated, that it was a considerable time before I was enabled to return to my duty, when I found the regiment removed to Case Pilot, a healthy village on the sea shore, equi-distant from St. Pierre and Fort Royal; here they continued healthy until the arrival of the convalescents from hospital, with their knapsacks and blankets, which being distributed among the different companies, communicated the disease so very generally, that in the course of a very short time, it run through every individual in the regiment, with the exception of three officers, who, if they were attacked with the fever, had it in so mild a form, as to make it unnecessary for them to be confined to bed; and it is worthy of being remarked, that those officers had been several years in the West Indies, some time before.

Having given this account of the progress of the disease in one regiment, which was the first that suffered from it among the troops employed in that campaign, I think it right to mention, that it very soon run the same course

through every corps that had arrived from England, and even through the regiments that had been some years in the West Indies, with this difference, that the last mentioned corps suffered a comparatively small mortality; but the total loss of the army, in the course of a few months, has been estimated at 6000 men. The inhabitants, also, suffered severely from disease; the mortality was certainly very small among the natives, or those long resident in the island, but the civilians newly arrived, fell in nearly as great a proportion as the military; the sea-faring people also, particularly the men belonging to the Transports, suffered dreadfully, many of the vessels having the signal of death flying for days together, and were left at last without a single soul to haul it down. Every person of colour, black as well as mulatto, seemed to suffer from fever, and, without exception, had (their cure for head-ach) a slice of lemon sprinkled with salt, bound on each temple; and in every house, there was a jar of cooling ptysan, composed of cream of tartar, with a proportion of Seville orange-juice, the pulp of cassia fistularis, water, and coarse syrup, which they drank ad libitum.

For some months after the first breaking out of this disease, which was in March, we had no appearance of Remitting, or Intermitting Fever, the disease run a continued course, in from one to three, or sometimes five days, never changing into, or terminating in ague, and although the convalescence was slow, particularly in the few who had

survived Venæ section, the patients did not suffer in any one instance from visceral obstruction. During the course of the year 1794 and begining of 1795, reinforcements continued to arrive for the army, and from occupying the same barracks and quarters with the troops which suffered from the disease, the contagion was frequently communicated to them immediately upon their arrival, and there were many instances of officers and men not surviving a week after debarkation; and these troops suffered in general, a greater mortality than the regiments which had been employed for some time upon active service, particularly the regiments that arrived from Gibraltar, where they were supposed to have been seasoned to the climate.

Having taken this short view of the disease, as it first fell under my observation in the West Indies. I shall next proceed to Europe, where the disease, for the first time in thirty-six years, shewed itself at Cadiz in the month of August 1800; it was speedily communicated to the whole town, and from thence it spread rapidly to Port St. Mary's, Xeres, Seville, and other towns in the neighbourhood; its ravages were so sudden and so destructive, that the French Government took alarm, and sent three of the Principal physicians of Montpellier, as Commissioners into Spain, for the purpose of enquiring into its nature and causes, with the view of establishing the necessary precautions, for preventing its introduction into the southern departments of France. The report of this commission was published at Paris in 1801,

by Professor Berthe; the object of their mission was to give a faithful detail of what they had seen and heard, and their having obtained the approbation of their own government is a satisfactory proof of their having done their duty.

Dr. Bancroft has thought proper to question some part of their publication; but as they commenced their journey, unbiassed to any particular opinion, and disengaged from all medical controversy, I think it but fair, to place implicit confidence upon their detail of facts and observations, as it must be taken for granted, that the persons selected for this important office, were men of honor and integrity, who considered truth as sacred, and who could have no object in misleading the world, upon a subject of such importance to humanity. As few persons in England have had an opportunity of perusing Professor Berthe's publication; I think it right, in justice to him and his colleagues, as well as to the question in dispute, respecting this disease, to give (at a future part of this work) an abridgement of it in his own words, at least, of that part of it which relates to the origin and progress of the disease; this I have thought the more necessary, as I have not met with any Spanish author, who has given any history of it as it appeared in 1800, although several have treated of its symptoms and cure.

From 1800, Spain continued healthy (excepting a slight appearance of disease in 1801, at Medina Sidonia, which

was checked immediately by cutting off communication with the infected) until 1803, when the disease again shewed itself at Cadiz and Malaga; the towns in the neighbourhood, however, aware of their danger, established Quarantine regulations, and remained healthy. At Gibraltar also rigid Quarantine laws were kept in force, against all parts of Spain, by Sir Thos. Trigge, who then Commanded, notwithstanding which, we were very nearly suffering, in consequence of our communication with Barbary. A Moorish vessel, with papers from Tetuan, but which had actually sailed from Malaga, was admitted to Pratique; a few days after which, the master of this vessel was reported to me (as Inspector of Health and Medical Superintendant of Quarantine) to have died under very suspicious circumstances. I immediately inspected the body, which was of a pale yellow tinge, and covered with petechiæ; he had died on the third day of his illness, had hæmorrhage from different parts of his body, and the characteristic symptom of this disease, great irritability of stomach, which was at last attended with vomiting of a matter, resembling coffee grounds. I reported the circumstance to the Lieutenant Governor, and recommended that the body should be buried by the crew of the vessel, and that they should be put in quarantine; the bedding was burnt, and the house white-washed and fumigated; but in consequence of some religious scruples, an application was made by the Moorish Consul, for permission to have the body removed on board the Vessel, for the purpose of being interred in Barbary; this

was granted, and she immediately got under weigh. There were fortunately no other inhabitants in the lodgings occupied by the Moors, it being an empty house, to which they had carried their own bedding.

During the prevalence of the fever in Spain, Gibraltar continued healthy; and remained so until the month of July 1804, when partly for health, and partly for pleasure, I procured three months leave of absence, with the view of visiting Malta and Sicily, leaving on the Hospital Staff, Dr. Nooth, Superintendent General of Hospitals, with a Garrison Surgeon, an Apothecary, and two Mates. Although I had but little time in the course of my tour for medical observations, I think it necessary to mention, that the summer was uncommonly warm and oppressive, from the prevalence of Sirocco winds; notwithstanding which, the inhabitants of swampy situations, in different parts of the coast of the Mediterranean, did not suffer more than usual from their customary diseases. In the month of August I visited the neighbourhood of Syracuse and Augusta in Sicily, where Remitting and Intermitting Fevers prevailed to a great degree; at this last place the inhabitants were the most wretched looking beings I ever beheld, and such dreadful martyrs to the consequences of marsh fevers, that in many instances the shape of their liver, or ague-cake, was distinctly perceptible to the eye.

In the month of September, I went from Naples to

Rome, contrary to the advice of Mr. Elliot, then British Ambassador there; as passing the Pontine Marshes at that season of the year, was described by him as most fatal; and he quoted several instances of whole families having suffered from it. I was aware that the greatest danger of imbibing the mal-aria, was incurred during sleep, I therefore made up my mind not to delay upon the road, and with the view of expedition, took a place with the Courier. I procured a bundle of good Havannah segars, which I produced upon my approach to the Marshes, and very little persuasion was requisite, to prevail upon my companion to keep up an artificial atmosphere, so long as we remained within the range of danger. The inhabitants in the neighbourhood of those baneful swamps, had much the appearance of those at Augusta in Sicily, but in neither situation, nor on the banks of the Tiber, did I hear of any disease resembling that which prevailed in Spain, though the thermometer frequently ranged from eighty to ninety.

Having remained a very few days at Rome, I proceeded to Civita Vecchia, with a view of embarking for Gibraltar, or any Port in Spain; and with some difficulty, (on account of the French laws with respect to passengers on board neutral ships), I procured a passage on board a Minorcan vessel bound to Carthagera, from whence I was in hopes of being able to proceed by land, and visit the Ruins of Grenada; but to my great mortification, I found the fever raging there to a most dreadful degree, and was informed, that it was committing the same ravages at Gibraltar.

Being most anxious to return to my post, I found myself very unpleasantly situated, for there was a cordon of troops round the town, to prevent communication by land, and the port was shut to prevent the sailing of any vessel, under the impression that they might introduce the disease into other parts of Spain.

I communicated my situation to the Governor, who, as a great favor, gave me leave to hire a vessel to Gibraltar (for which they made me pay nearly one hundred pounds). He requested me, before my departure, to give my opinion of the prevailing fever, to the medical gentlemen of the place, who were aware of the disease having been of foreign origin, as they mentioned that it had been introduced by smugglers, from Malaga or Cadiz; and that they never knew any disease of the same nature, to have existed there before. They had tried blood-letting with very bad success, after which, they placed their chief reliance upon iced lemonade, or the diluted mineral acids, and the iced water enema. I recommended the early administration of purgatives, particularly calomel, in much larger doses than they had been in the practice of using it, to be assisted with a laxative enema, and frequent sponging of the surface of the body with cold water.

During the two days that I remained there, the deaths were from one hundred to one hundred and ten per day,

nearly as great a mortality as usually occurred in the course of twelve months.

The moment my vessel was ready, I got under weigh for Gibraltar, where, (although I was very unfortunate in having both calms and contrary winds) I arrived on the 18th of October, one week after the expiration of my leave of absence. The scene of horror, upon my landing, is beyond all description; at eleven o'clock in the forenoon, in the town which used to be all bustle and confusion, there was not a soul stirring, the doors and windows all shut; it looked like a moon-light night, and the only moving object that attracted my attention, was a cart heaped up with dead bodies. The greater part of the civilians had already been swept off, and the disease had gained considerable progress among the different regiments.

The following account of the first introduction and subsequent progress of the disease, is to be depended upon, it was communicated to me by Mr. Kenning, Surgeon to the Royal Artillery, who had been quartered in the garrison, a considerable time before, and was therefore familiar with the diseases of the climate.

“ A shop-keeper named Santo (who resided in Boyd’s
“ Buildings) arrived from Cadiz on the 28th of August,
“ 1804, and was taken ill on the 29th—he had lodged in a

“ house at Cadiz, where some persons died of the then pre-
 “ vailing fever. Mrs. Fenton (wife to Bombadier Fenton of
 “ the Royal Artillery) was the second person attacked, she
 “ was taken ill on the 3d of September, her husband and a
 “ child of the name of Roland, were taken ill on the 8th,
 “ and died on the 12th. Mrs. Boyd, who had visited Mrs.
 “ Fenton, was taken ill on the 13th, and died on the 19th;
 “ her husband was taken ill on 14th, and died on the 16th;
 “ all those families were neighbours: the disease was con-
 “ fined, for some time, to this particular part of the town,
 “ and to those who had intercourse with them.

“ An inhabitant of the name of Estrico (a neighbour
 “ of Santo's) alarmed at the mortality, moved his quarters
 “ to the south district, where he was taken ill, and from
 “ him the disease was communicated to his new neighbours,
 “ and rapidly to all the inhabitants. On the 12th of Sep-
 “ tember, I visited every person then ill of the disease,
 “ they amounted to about 50, most of them resided in
 “ Boyd's Buildings, the place where Santo was taken ill,
 “ and in ten of the families, I observed that more than
 “ one in each were affected. A meeting of medical gentle-
 “ men, civil and military, was assembled by order of the
 “ Governor, on the 15th of September, when I pro-
 “ nounced the Disease to be *malignant and highly contagi-*
 “ *ous*; I was the only person that ventured to give this
 “ opinion, and standing single, I was of course over-
 “ ruled, as the highest medical authorities pledged their

“ honor and reputation, that no other disease existed, than
 “ what prevailed there every year. The different medical
 “ officers were, in consequence, directed to visit all persons
 “ under its influence, to comfort and assure them and others,
 “ that nothing was to be apprehended, and most particularly
 “ to prevent any idea of contagion being circulated abroad,
 “ as it would be prejudicial to the garrison.”

Some time after the disease was at an end, the above named Santo, was examined juridically, and the circumstances respecting his having been at Cadiz, and residing in an infected house, confessed by him.

I was in hopes, that long before this time, an interesting journal of all the proceedings and events, from the first introduction of this disease until its termination, would have been published by Lieutenant Colonel Wright, Royal Artillery, who officiated for a considerable time, as secretary to the governor, and in whose presence Santo made his declaration!

Upon my arrival in the garrison, I found Dr. Nooth in so debilitated a state, in consequence of an attack of the fever, as to be unequal to the duty required of him. I found, also, that although the medical officers at the commencement of the disease, had been nearly unanimous, with respect to its non-contagious powers (as will appear from the following extract of an official letter from Sir Thomas

Trigge, to the Right Honble. Lord Camden, dated 28th of September, 1814, and published in the public papers of the 16th of October) they were now unanimous, with one exception, on the other side of the question.

*“ Dr. Nooth, Mr. Burd, and the medical officers, with
 “ only one exception, are most decided in their opinions,
 “ that the disorder proceeds from the great heat, and unfavourable
 “ state of the weather, and that it is neither
 “ malignant nor contagious!!*

Dr. Nooth was the only person who persevered to the last, although, if we can judge from his official letters upon the subject, he had his doubts respecting it. Every medical officer in the garrison had come over to the opinion of Mr. Kenning, who, to his credit be it said, was the one exception, mentioned in Sir Thomas Trigge's letter; and if he had been allowed to treat his corps, as if the disease had been contagious, what miseries, and what mortality would he not have prevented? As the disease advanced, however, with rapid strides, notwithstanding the decision in favor of contagion, the faculties of the medical officers seemed paralysed.

Mr. Burd, at the head of the Medical Department of the Navy, had written officially to Lord Nelson, commanding the fleet, cautioning him against communication with the ships from Gibraltar, on account of an infectious fever having broken out there; but the only precautions taken

to prevent the spreading of disease, was encamping the troops quartered in the town, and burning the beds of the men who had died. (All the guns of the garrison had also been fired, with the view of purifying the air, and this not proving successful, it was proposed to blow up a magazine, as a means of doing it more effectually). But, while they were burning the beds of patients who had died, I found that if a soldier was taken ill in Barracks, he was sent to the hospital, and his comrade, either sleeping with him, or coming off guard, went into the same bed in the evening; and, as might naturally be expected, this comrade was to a certainty taken ill in the course of three or four days; the fourth day was generally the time the contagion seemed to require to shew itself, and this was ascertained most positively in innumerable instances. If an officer was taken ill, his servant was sent to the hospital on the fourth day. Soldiers conducting sick to the hospital, were affected in the same space of time; the only exception to this rule, seemed to be in burying the dead; many persons complained of having received the contagion even from passing a dead body, sickened immediately, and several were carried off from this cause, before the expiration of forty-eight hours. One man of the Regiment de Rolle, in conducting his comrade to the hospital, complained of being sick, and expired upon the road, although he was apparently in perfect health before he left the barracks.

Contagion, as I mentioned before, was no longer doubted;

as soon as the disease gained admission into a family, it ran through every member of it in the course of a few days; it ran through barrack rooms, and whole regiments, in the same way; and while this devastation was going on among those who kept up a communication with the infected, several families which took the precaution to insulate themselves, escaped unhurt.

In my first visit to the hospitals, I found that all the orderly men and nurses had suffered from the disease, with the exception of the Steward of the Queen's Regiment, and the Steward and nurse of the Barrack Artificer corps; the two last had been attached to the sick under my care in the West Indies, and my knowledge of this circumstance, I believe, first impressed upon my mind, the idea of the disease having a respect for the human frame, after having attacked it once. I communicated my sentiments to Sir Thomas Trigge, and requested him to order a Parade of all the officers and men who had been in the West Indies, at which, to my astonishment and gratification, I found 122; many of them who had been exposed to the contagion in a variety of ways, but all escaping it, not one of them had had even the slightest head-ach.

As I took charge of the Medical Department during the indisposition of Dr. Nooth, my first object was to point out the measures I supposed best calculated to check the ravages of the disorder. I drew up a code of regulations, with

the view of having them inserted in the regimental orderly books, to be carried into effect by authority of the Lieutenant Governor, under the immediate superintendence of commanding officers of Regiments. I proposed, that all the men who had been in the West Indies, or who had recovered from the disease, should be employed in hospital duties, burying the dead, &c.—that a convalescent camp should be established for the men discharged from the hospital, where they should have their linen and clothes washed, before being allowed to join their regiments,—that the men in barracks, who had not had the disease, should be moved to camp—that whenever a soldier was taken ill, he should be carried to the hospital by men who had passed the disease; his bedding and tent washed, and that his comrade, and all the other men in the same tent, should be sent for a certain time into Quarantine.

Sir Thomas Trigge (for particular reasons) declined inserting these regulations in the General Orders, but he acknowledged the advantages likely to be derived from them, and ordered a meeting of Commanding Officers of corps, at which I was to attend, for the purpose of laying them before them; they were at the same time authorized to act upon them as far as they judged proper; and I must do them the justice to say, that they all upon this occasion shewed their zeal for the service, and the anxiety for the health of the men under their command; and although my regulations (particularly the establishment of a separate camp for

the men who had not had the disease) were not carried so fully into effect as I could have wished, until the beginning of December, some time after the arrival of Mr. Bolton, Deputy Inspector of Hospital, Sir James Fellowes, and other medical officers, they proved so far successful, as to save 1200 of the soldiers from an attack of the disease, and is a convincing proof of what might have been done with a view of putting a check to it, at its commencement; for out of the civil population, which in the month of August, amounted to nearly 14,000 souls, I could only trace twenty-eight individuals who escaped an attack of the disease, and twelve of them, had been attacked with the same fever at former periods, either in the West Indies, Philadelphia, or Spain.

This advantage of separation, however remarkable among the troops, was still more so in several families which cut off communication with the infected. Col. Fyers, of the Royal Engineers, with seven in family, besides servants; Col. and Mrs. Darby, with Capt. and Mrs. Wilkinson, of the 54th Regiment; Capt. Dodd's family; Mr. Straith and family, were the only persons that cut off communication, and the only persons that kept clear of disease, until the beginning of December; when Col. and Mrs. Darby, with Capt. and Mrs. Wilkinson, fatigued with their Quarantine, and considering the disease so far got the better of, 'as to be safe from its attack, returned into town to their quarters, where they all, as well as their servants, (with the exception of

Col. Darby, who had been in the West Indies) were attacked with the disease, and of which Capt. Wilkinson died. It was found, that when disease had nearly ceased among the natives, that all new comers, and persons landing from the shipping, even for a few hours in the course of the day, without sleeping in the town, were attacked with the fever; on which account, I recommended the Port to be shut, excepting to persons who had passed the disease in Spain, or who had been in the West Indies; for it was now ascertained to a certainty, not only in Gibraltar, but by letters from Cadiz and Malaga, and by several persons escaping it who had had it at Philadelphia, that the disease attacked but once; all those who had passed it in 1800 and 1803, at Cadiz and Malaga, having been safe from its attack in 1804.

Not that having been in the West Indies exempted them from an attack, unless they had passed the disease there; but it had been so very general in all the islands for ten years before, that instances of military or seafaring men escaping it, were rare indeed. I much doubt whether the same regulation would hold good now, as I have strong reasons for believing that for some years past, the Bulam Fever has seldom if ever appeared in several of the West India Islands.

The 57th Regiment arrived at Gibraltar, during the prevalence of the malady, as a reinforcement to the Garrison; it had been in the West Indies some time before, and had a considerable number of men who belonged to it when quartered

in the Island of Trinidad, and as their service on shore was very much wanted, they were allowed to land, and added to the proofs of the disease not attacking a second time.

I mentioned before, that all the hospital attendants were attacked with the disease inside the garrison, the same took place on the neutral ground, and on board ship, where the patients were crowded, or where there was not a free ventilation of air; several families crowded on board ship, suffered severely from the disease spreading, while in other vessels, where the number of passengers was small, and a free circulation of air kept up, the contagion was confined to the few individuals who had carried the disease on board with them.

During the progress of this disease, as I have described it, in the West Indies, and in Gibraltar, we have seen the strongest proofs of the existence of contagion, and of its attacking the human frame but once; and when the disease first made its appearance at Grenada, Dr. Chisholm particularly noticed its attacking constitutions of natives, or of Europeans assimilated to a warm climate, in a comparatively mild form; he mentions, that of fifty-six men, belonging to the Ordnance department (who had been three years in the West Indies) attacked with the disease, only five died; and that about the same time, twenty-six recruits, lately arrived from England, were attacked with the fever, of which number twenty-one died.

Of this last peculiarity of this Disease, we had at Gibraltar, a most convincing proof, in the 10th regiment of infantry, which had been quartered several years in the East Indies, eight officers (who had been in India) belonging to this regiment, were attacked with the fever, and all recovered. Seven officers, who had not been in India, had the disease in so different a form, that five of them died. Four hundred of the men who had been in India were attacked with the Disease, of which number, only four died; and of forty-eight who had not been in India, sixteen died.

This circumstance is so strong, and of such consequence as, in my opinion, to merit the consideration of his Majesty's government, as to the propriety of trying the experiment of sending troops from the East to the West Indies, after having been seasoned to the climate by a residence of about three or four years; they will by this, I am confident, be rendered proof against a violent attack of Balam fever; but I am sorry to say, that I do not think it will have any effect in protecting them against the Marsh fever, or Bilious Remittent, a disease, though not contagious, much more fatal to the British army, than that of which I now treat. The only way to protect the constitution against the baneful influence of the mal-aria arising from marshes, is by the judicious selection of posts, situated at a sufficient distance from, and, if possible, to windward of, their sphere of action.

Of the advantages to be derived from avoiding this cause of disease, we had a remarkable instance in Sicily, where the troops formerly suffered severely from attacks of Remitting fever; but where the British army, for some years past, enjoyed the highest degree of health; and for which they were indebted to the good arrangements of Dr. Franklin, formerly at the head of the hospital staff in that island, and now a member of the Medical Board.

If the idea of sending troops from the East to the West Indies, should be thought chimerical, much may be done by selecting healthy positions for regiments upon their first arrival in the West Indies, by way of assimilating their constitutions to the climate; for, as I mentioned before, it has been ascertained, that quartering troops in the Mediterranean with that view, does not answer the purpose. Brimstone-hill, in the Island of St. Kitts, and Richmond-hill, in St. Vincent's, are, I believe, two of the healthiest posts in the West Indies, where, as I shall afterwards shew, the Ninth and Sixty-sixth Regiments were quartered for several years (before the appearance of the Bulam fever in 1793), and did not lose a much greater number of men, than they would have done in the most healthy situation in Europe.

As Dr. Nooth, who was at the head of the medical department in Gibraltar, during the prevalence of this disease in 1804, has been quoted by Dr. Bancroft as one of his first authorities in favour of non-contagion; and as having great

experience in diseases produced by marsh miasmata, I shall here insert extracts from his official letters, which will prove, that although he had his doubts about contagion, he never had the most distant suspicion of the disease having been produced from marsh miasmata; indeed, such an idea could not originate in the mind of any person who had ever visited that Garrison, but for the purpose of establishing a favourite hypothesis; for, in the list of diseases prevailing there, we have not one ague in the simplest form to support it.

As the disease might be said to have commenced on the 29th of August, I shall here, as a proof of the health of the troops before that time (which consisted of about 3,500 men) insert the official return of sick, made five days before.

Monthly Return of Sick.—Gibraltar, August 20, 1804.

Fevers.	Pulmonic Complaints.	Rheumatism.	Dysentery.	Diarrhoea.	Dropsy.	Ophthalmia.	Laes Venerea.	Scurvy.	Wounds and Ulcers.	Contusion.	Hernia.	Mania.	Convalescents.	
8	5	2	2	4	1	1	11	2	24	1	1	1	20	Total 83

*Extract of Dr. Nooth's First Letter to Mr. Keate,
Surgeon-General.*

Gibraltar, Sept. 20, 1804.

“ In consequence of the long-continued drought, and the
 “ excessive hot weather which we have for months had, an
 “ Epidemic fever, of the Inflammatory kind, rages with some
 “ violence amongst us. The lower class of inhabitants seem
 “ to suffer most; and many persons, both male and female,
 “ have fallen victims to it: we have had, however, but very
 “ few deaths among the troops; the principal loss has been
 “ in the Artillery and German Regiment; and, I firmly be-
 “ lieve, that a mistake respecting the real nature of the dis-
 “ ease, was the cause of the mortality in those corps. I have
 “ taken great pains to convince the surgeons of their errors;
 “ and, I believe, I shall have no future reason for complaint
 “ on this head. Impressed with the idea, that the disease
 “ was of a contagious and putrid nature, and influenced by
 “ the general alarm that prevailed amongst the inhabitants,
 “ some of our weaker brothers in medicine seemed to have
 “ lost their senses; and although the cases were as decidedly
 “ inflammatory as they possibly could be, in almost every in-
 “ stance, they entertained the idea that the disease that pre-
 “ vailed was highly contagious, and as they expressed them-
 “ selves of a putrid nature; of course many of the cases that
 “ first occurred were victims to those opinions, and the con-
 “ sequent mortality occasioned an alarm amongst the inha-
 “ bitants that exceeded all belief. General Barnett, our se-

“ cond officer in command here, did me the honour to con-
 “ sult me on the alarmed state of the inhabitants, and to ask
 “ my opinion with regard to the nature of the disorder, and
 “ to assure me, that he should be entirely directed by my
 “ opinion, on the means that might be thought necessary to
 “ quiet the minds of the people, *and to stop the progress*
 “ *of the disease.*

“ As I had already seen some of the worst cases, and was
 “ convinced that the nature of the disease had been misun-
 “ derstood, I proposed to visit the most serious cases myself
 “ amongst the inhabitants; both to convince the public, that
 “ there was nothing to be dreaded from a communication
 “ with the sick, and to encourage the inhabitants to be more
 “ assiduous in their attention to them.

“ This plan was thought to be the best calculated to quiet
 “ the minds of the multitude with regard to contagion, and
 “ to introduce a more rational practice amongst the town
 “ practitioners; and, to co-operate with them our endea-
 “ vours, it was thought necessary to engage one of the
 “ medical gentlemen of the place, who was conversant with
 “ the Spanish and Genoese languages, to accompany one of
 “ the army medical people in visiting the sick poor, and ad-
 “ ministering the proper remedies to them.

“ I am happy to say, that although the number of sick
 “ that daily occurs, is not yet much diminished; our mor-

"tality is much less, and that the number of convalescents
 "is very great, notwithstanding the same hot dry weather
 "still continues, that in all probability produced this in-
 "flammatory fever amongst us. Fortunately for us, how-
 "ever, the rainy season must soon commence, when we may
 "reasonably expect a termination of this fever.

"By the monthly return of sick, herewith sent, you will
 "see that the loss of men in the English regiments has been
 "very small; the number of dead, however, in the German
 "regiment, is certainly great; but as they have, in some mea-
 "sure, got the better of their fears and apprehensions re-
 "specting contagion and putridity, I trust there will be less
 "mortality for the future in those corps. I found it necessary
 "indeed to dictate to them pretty peremptorily the mode of
 "treatment which they ought to pursue; and, at the same
 "time every argument was made use of, at the bed-side of
 "the patients, to shew the true nature of the disease, by re-
 "ferring to present and past symptoms. All this business,
 "as you may suppose, has been very fatiguing to the mind
 "and body; but I feel myself equal to it, *and can now*
 "*boast of as perfect health as I ever enjoyed in my life.*"

(Signed)

MERVIN NOOTH.

I have not been able to procure the regular monthly return
 of sick and deaths for the month of September; I find, how-

ever, by the examination of the muster rolls, that the Artillery lost * , and the German regiment only seven."

From the tenor of this (Dr. Nooth's first Letter) we might naturally expect a very favourable change for the better in his next, particularly after his peremptory order for a new mode of treatment, (which was blood-letting); and with all his arguments at the bed-side of the patients, to convince them of the true nature of the disease, or of the non-existence of contagion, we could never have expected that he, or General Barnett (who fell a victim to his zeal), could have been attacked with the disease; we shall find, however, in his anxiety (by visiting the worst cases) to prove that there was no danger of infection, that he was the first medical officer attacked with it, and that the mortality was beyond description terrible.

Extract from Dr. Nooth's Second Letter.

Gibraltar, October 10, 1804.

" Soon after I wrote to you on the 20th ult. the Epidemic
 " fever, which I then mentioned as having shewn itself
 " among the inhabitants, in De Rolle's Regiment, and the
 " Artillery Corps, began to manifest itself in all the other
 " regiments in the Town of Gibraltar, and very generally

* The corps of Royal Artillery lost 37 men in September, 133 in October, and 17 in November.

“ amongst the inhabitants. Thinking that this disease arose
 “ from a combination of causes, such as long-continued
 “ heat and drought, a crowded state of the lower class of
 “ the inhabitants, a want of proper attention to individual
 “ and domestic cleanliness amongst them, I immediately
 “ proposed that the troops should be all withdrawn from
 “ the town, and encamped on the most airy situations on the
 “ rock. Unfortunately, however, there were too many pre-
 “ disposed to the disease, for us to feel the good effects im-
 “ mediately, that might have been expected from such a
 “ plan. Numbers daily fell sick, and I am sorry to tell
 “ you, that our loss in De Roll’s and the Artillery corps has
 “ been, within this month, *enormous*.

“ The loss in other corps is comparatively small; but
 “ amongst the inhabitants, *the ravages which the disease*
 “ *has made, is beyond description terrible*.

“ To lessen the number of the inhabitants in the town, an
 “ encampment was formed for them on the Neutral Ground,
 “ where from three to five hundred sick, have been accom-
 “ modated at the public expence.

“ My fatigue in every line of duty became excessive, both
 “ in town and in the camps; and by being obliged to attend
 “ at head quarters, (I mean General Barnett’s Quarters, as he
 “ then had the command, Sir Thomas Trigge being on the
 “ wing to embark for England), *I very soon contracted the*

“ *fever in that focus of contagion*, and I am but just able to
 “ hold my pen to give you this account of our situation.

“ When I shall be able to go out again, heaven knows;
 “ as all those that have recovered hitherto, have come
 “ forward very slowly. Hitherto I am the only medical
 “ person that has been attacked; and, perhaps, had not
 “ my duty kept me the greater part of my time in Gib-
 “ raltar,* I should not have been ill.

“ The disease by no means seems to be *infectious*; but
 “ the whole atmosphere on the rock is *pestiferous*; and, I
 “ am inclined to think, that in addition to the ordinary
 “ causes of contagion, we may consider a large lime kiln, in
 “ the upper part of the town, as aid and part, in the general
 “ mischief. This volcano has been all the summer at
 “ work; and has been vomiting day and night the foul airs
 “ arising from the lime-stone into the town below it. On a
 “ rough calculation, this kiln cannot have discharged less than
 “ a hundred tons *in weight* of fixed air within these three
 “ months; and during all that time, from the prevalence of
 “ the easterly wind, the town of Gibraltar was becalmed.
 “ This nuisance is, however, stopped; and I expect we shall
 “ soon find the good effects. On my suggestion to Sir

* By being in Gibraltar, Dr. Nooth means to distinguish the town from the South District, where he resided, and which continued free from disease for a considerable time after it commenced its ravages in the town.

“ Thomas Trigge (for he has resumed the command since
 “ the death of General Barnett, or rather since his first at-
 “ tack), very readily came into my views; and I am sorry it
 “ did not occur to me to have it extinguished sooner. A
 “ blot is no blot until it is hit; and it is better late than
 “ never with respect to this pestiferous erection, as directly
 “ below it the disease began!!”

(Signed)

MERVIN NOOTH.

What can Dr. Bancroft say to this new cause of Marsh fever in its most concentrated form? or what became of it in its more mild form of Intermitting and Remitting fever? or how came it, that of 14000 inhabitants, only twenty-eight persons escaped an attack of it? and of 4200 military, 1200 escaped it? If no precaution had been taken against contagion, the disease would, to a positive certainty, have ran through the military in the same way as it did through the inhabitants, and as it has done in every instance in the West Indies, where, from its having been generally supposed to be non-contagious, no precautions have been taken against it. And a most convincing proof that marsh had nothing to do with it is, that among all the civilians who emigrated from the garrison, and among the 1200 soldiers who escaped it, there never appeared, at any future period, any symptom of Ague, or Remitting fever, which Dr. Bancroft has taken so much pains to prove, may remain dormant in the system for many months; and that Vernal Intermitments are the consequence of poison imbibed into the constitution during the Autumn.

*Extract of Dr. Nooth's Third Letter.**Gibraltar, Nov. 13, 1804.*

“ I had the honour of informing you a few days since,
 “ that the Epidemic fever, which had appeared amongst
 “ the inhabitants, and some of the troops, about the 14th
 “ of September, had since that time become very general,
 “ that it had then carried off a great number of people.
 “ Since my last the disease has increased to a great degree
 “ amongst the troops; and many, as you will see by the en-
 “ closed return, have fallen victims to the prevailing dis-
 “ order.”

Monthly Return of Sick.—Gibraltar, October 20th, 1804.

	Remaining in Hospital the 20th of September	Since admitted	Discharged	Dead	Fevers	Dysentery	Pulmonic	Hepatitis	Venereal	Wounds and Ulcers	Convalescent	Total Sick
2d Regt.	15	191	85	30	34						57	91
10th	49	164	108	7	60	7	1	1		4	33	106
13th	51	237	45	30	89					3	79	171
54th	38	259	158	44	46				2		48	96
De Roll's	71	273	128	115	41	1				1	55	101
	224	1124	524	226	270	8	1	1	2	8	272	565

“ Since the date of that return the mortality has not been so
 “ great, but the loss has been very considerable, although
 “ the disease, since that period, has been on the decline.

“ I wish it was in my power to give you a more satisfac-
 “ tory account of our real loss. On the 20th of the month
 “ I shall make out the return to that period; and I hope
 “ soon to have an opportunity of transmitting it.”

(Signed)

MERVIN NOOTH.

After this period the disease declined fast, and we had but few cases of it in December. As soon as the weather became moderately cool, the convalescents *recovered rapidly*, and all disease had disappeared by the first of January.

I here insert a return of sick to the 20th of the month, than which, I do not think, a more powerful argument can be used against the idea of this disease belonging to the tribe of Intermitting, or Remitting fevers; every person who has had the smallest experience in them must acknowledge, with Dr. Pinckard (page 443) that they are very generally connected with a derangement of the Biliary system, and that a common sequel of each is a chronic affection of the liver; but here, out of many hundreds who had had the fever, we have only four cases of liver affection, and they were men belonging to the 10th Regiment, who had contracted their complaints in India.

Monthly Return of Sick.—Gibraltar, January 20th, 1805.

Fevers	Dysentery	Pulmonic	Hepatitis	Rheumatism	Wounds and Ulcers	Scurvy	Fracture	Lues Venerea	Intermittent Fever	Convalescents	
	3	6	4	6	12	17	1	2	1	22	Total 74

*Extract of Dr. Nooth's Fourth Letter.**Gibraltar, February 2, 1805.*

“ For my own part, I am well convinced that the Epi-
 “ demic fever that lately raged amongst us was the conse-
 “ quence of the extreme heat, drought, and calms, that pre-
 “ vailed from the middle of April to the end of October;
 “ and as to the infectious nature of the disease, it is by no
 “ means so clear a circumstance as the public are apt to
 “ imagine. *I have, I must confess, still my doubts upon*
 “ *the subject*, and cannot be convinced by what I have seen
 “ that the disease is personally infectious. If the disease is
 “ so infectious as the generality of mankind believe, it may
 “ be asked, what is become of the infection at this time

“ with us? and what could have rendered it altogether dormant at this season?”

(Signed) MERVIN NOOTH.

It must be allowed, that the season was warmer, and the easterly winds more prevalent, for some time before and after the commencement of this malady, than the usual summers of Gibraltar; but, upon reference to the thermometer in former years, we found that it had frequently ranged higher, particularly in the years 1800 and 1808; and if it was even allowed that this extreme heat was capable of producing so noxious a change in the atmosphere, as to generate this disease, how are we to account for St. Roque, Algeziras, and all the villages along the coast of the Mediterranean, (whose magistrates had wisdom enough to cut off communication with the infected places), having escaped? And as to the doubts started in this last letter, respecting the disease being personally infectious, for *doubting*, we must read *believing*, as I cannot help considering this as an acknowledgement of change of opinion; for in his second letter he says,—“ Had not my duty kept me the greater part of my time in Gibraltar, I should not have been ill;”—conceiving, that in the pure and healthy air of the south district, he would have remained in health. But in the south we found the disease, after it was once introduced,

equally prevalent as in the north;* the moment that one individual of a family was attacked, the fate of the others was decided upon; and, as I mentioned before, the only families that altogether escaped, were the few that kept themselves in Quarantine. The only instances to the contrary, and which, at the time, were reckoned very remarkable, (having been much exposed to the contagion, in their kind and assiduous attention to their families), were two ladies, Mrs. Col. Wright and Mrs. John Ross. I may also mention Mr. Kenning, Surgeon to the Royal Artillery, who, if he had the disease, had it so mildly as not to prevent him doing his duty.

As to the query in the last part of Dr. Nooth's letter,—
 “What is become of the infection at this time, and what
 “could have rendered it altogether dormant at this season?”
 This I conceive (independently of the peculiarity of this disease, being destroyed by a certain degree of cold) is very easily answered by referring him to the precautions which were used, viz. by separating the sick from the well; by afterwards preventing communication; by fumigation; white-washing, and purification of every description; which was so generally used, as to be fully sufficient to have destroyed the

* Colonel the Honourable C. Colville, commanding the 13th Regiment, most anxiously urged the Lieutenant-Governor to cut off communication between the two districts, but in vain!!!

contagion of small-pox, or any other disease. These last precautions were used, however, more with the view of preventing the re-appearance of the disease at the return of the summer, as it had been ascertained by two years experience in Spain, as well as by numerous instances of ships sailing from the West Indies, that the disease disappeared in a particular latitude, or as soon as the thermometer fell to a certain and permanent degree of cold. Fifty of Fahrenheit, is, I believe, about the degree which deprives the disease of existence; and it has been mentioned by authors, that it does not prevail in the high grounds in Jamaica, where the thermometer ranges from 50 to 55; and, as its powers of contagion and destruction are destroyed by cold, they are in a wonderful degree increased by heat. Like Typhus, however, little is to be apprehended from it in open, airy, and well ventilated apartments; or even in a ship, where they have the means of creating a free circulation of air.

Having said this much concerning the disease, as it prevailed at Gibraltar during the four last months of the year 1804, which was the Centenary of that garrison being in possession of the British crown, and the only time that any such disease ever prevailed there before; and which, until this period, was reckoned one of the healthiest quarters for troops out of England—I shall here insert the total number of deaths during this dreadful calamity.

Officers	54	}	Total 5946
Soldiers	864		
Soldiers' Wives and Children	164		
Civilians	4864		

Comparing this four months' mortality with the total number of deaths among the military during the whole of the two preceding years, viz.—

In 1802, Deaths.....	35	}	Total deaths in two years91
1803, Deaths.....	56		

And taking into consideration, that no such disease, during one hundred years, had ever existed there before, even in the years 1800 and 1803, when it prevailed both to the East and West of Gibraltar, viz. at Cadiz and Malaga; both places distant about forty-five or fifty miles, in a direct line; when, if any noxious change had existed in the atmosphere, we cannot suppose that it could have been confined to particular spots, or that a good Police or Quarantine Regulation could have had any influence in altering it; for it was to this alone, that Gibraltar, as well as many villages in Spain, escaped its baneful influence.

Whether the system of purification carried into effect against the fomites of the disease of 1804, was absolutely necessary or not, it however proved successful in 1805, as the Garrison enjoyed the most perfect health from that time until 1810. The occurrences of this last year, which I

shall now mention, prove beyond a doubt the existence of a distinct and specifically contagious disease, which may be prevented, or rendered comparatively harmless, by the establishment of such precautionary measures as are had recourse to, with success, against Plague, Small-pox, &c.

During the prevalence of the Contagious Fever at Carthagená in 1810, four transports from that port (two of them having on board deserters from the French Army) anchored in the Bay of Gibraltar, on the 19th of September; they were immediately put under the restraint of Quarantine. I went alongside for the purpose of enquiring into the state of health of the men, when I was informed, that one was already dead, two were dangerously ill, and several others had been attacked with fever, which shewed itself in all the four transports in the course of a few days.

Knowing the danger in which the Garrison was placed, I made a representation to the Lieutenant Governor, pressing him to order the ships to get under weigh for the Lazaretto at Minorca; and just as this was upon the point of being executed, information was received that the vessels would not be permitted to anchor there, the establishment of the old Lazaret having been given up, and the new one, which was then building, not being ready for the reception of passengers or goods. I then urged the necessity of procuring more vessels, for the purpose of separating and affording better accommodation to the troops, who were very much crowded. From unavoidable delays, these addi-

tional vessels were not procured so soon as could have been wished; at last, however, two hulks were appropriated for the purpose intended, but not before the disease had gained much ground, and many of the soldiers and sailors had suffered from it. Thirty-seven of the soldiers who had hitherto escaped it, were put on board one hulk, and forty on board the other.

As my object was to prevent the disease being communicated to those who had not passed it, I procured a supply of new blankets, and a suit of new clothing for every soldier to be removed; this supply was put into the hulks, and every man, before going on board, was stript and bathed, and his old clothes and bedding destroyed. Several men who had passed the disease were also on board the hulks, who had orders, immediately to separate any man who had the slightest complaint, and to make a signal to the Hospital Ship for a boat, which was constantly in readiness to remove them.

During the course of the first ten days, six men were removed to the Hospital Ship from one hulk, and eight from the other; after which the disease disappeared, and sixty-three soldiers were saved from an attack of it, while all the sailors, who remained on board, exposed to the contagion, were attacked with it. Mr. Arthur, Assistant Surgeon to the 4th Royal Veteran Battalion, who most humanely and courageously volunteered his services, was

attacked with the disease on the fourth day after going on board, and from which he very narrowly escaped with life, having suffered most severely from that so often fatal symptom, the irritability of stomach.

As Dr. Bancroft is aware, from having quoted Mr. Arthur's words, at page 485, "that it was exactly the same disease as that described by Dr. Moseley, as prevailing in the West Indies;" I should like to know how he will attempt to account for this attack of Mr. Arthur's, or the escape of the men when removed from the Transports? he can only do it by acknowledging Contagion, of the existence of which, we have here a positive proof, and that the disease in question was not produced by Marsh!! For I must agree with what Dr. Bancroft mentions in page 490, "If fevers produced by Marsh Miasmata, could acquire a contagious power, and thereby produce other fevers, in addition to those which their original cause will doubtless continue to produce abundantly, and without end; such enormous additions to the widely extended, and powerful mischiefs of Marsh Miasmata, would long since, in the ordinary course of things, have exterminated the human race."

During the time that the disease had been going on on board the Transports in the Bay, the Garrison continued in perfect health until the 20th of October, when in consequence, (as I must suppose,) of a breach of Quarantine Regulations, which however could not be detected, a Minorcan



family in the south district, belonging to the Dock-Yard, was attacked with the disease. The first information I received of it, was on the morning of the 26th of October, in consequence of the death of one of them, (a young man, clerk to Mr. Boschetti); he had been pronounced convalescent on the 24th, having, as the medical person who attended him supposed, a remission of all his bad symptoms, which proved to be only a prelude to gangrene of the stomach.

I immediately visited the family, and found, from the history of the case of the deceased, and the situation of the other members of the family and their friends, that the disease which we had so much reason to dread, actually existed. Six, out of seven persons, had been already attacked in one house, and three other families, neighbours who had visited them; as also, a Spanish Priest who resided in town, at the distance of a mile and a half from the infected district, but who had visited, professionally, the brother of the deceased, a carpenter in the Dock-Yard, the first person taken ill, and who I suspected of having communicated with the infected Transports in the Bay.

I was aware, from what I had seen in 1804, that the only way of cutting short the contagion, was by the most prompt and decisive measures, to separate the sick from the healthy, and to prevent any communication between those persons who might be suspected of having imbibed the disease, and the other inhabitants. I knew also that every art would

be resorted to, with the view of avoiding Quarantine regulations, if the necessity of having recourse to them should be made public. I communicated my opinion to the Lieutenant Governor, who gave me full powers, in consort with the Town Major, to take such measures as I might judge best.

I directed a sufficient number of tents to be pitched outside the gates of the garrison, on the neutral ground, with a proportion of bedding, &c. and in the middle of the night, without any previous information being communicated to the inhabitants, a strong guard, with a sufficient number of carts, proceeded to the infected district, and conveyed the different individuals of the infected families, sick and well, with their baggage, to the encampment, which was established as a Lazaret, and kept in quarantine. I placed the sick in separate tents, and appointed persons to attend them who had had the disease at a former period. A cordon of troops was also established round the infected part of the south district, which was kept in quarantine for fourteen days; proper persons were also appointed to superintend the purification of the houses, furniture, &c. and to report the slightest appearance of disease among any of the inhabitants—who were also paraded, and inspected daily by one of the Hospital Staff.

Within a few days, several persons (all neighbours of the first family taken ill,) were declared to be infected; particularly a servant of Mr. Nichols, Agent for Transports. On

the morning of the 28th, Mr. Kidstone, Surgeon, 7th Veteran Battalion, also reported to me, the deaths of two men of that regiment, and that he had several other cases of fever in the Hospital, which he suspected to be of the same nature;—five fresh cases of fever were also reported in the Barracks, in the course of the day.

I did not hesitate as to the measures which I ought to recommend, and in the course of next day the whole regiment, with the Hospital establishment, was removed to the Neutral ground. Ten soldiers who had had the disease in the West Indies, were left in Barracks for the purpose of whitewashing and fumigating them, and I recommended Mr. Kidstone to employ the same description of men in attending the sick.

Very few men were reported sick after the regiment moved into Quarantine; three of them however were taken ill in the same tent; six died from the disease, *who were all taken ill in the same Barrack-room.*

Two cases of Black vomiting also appeared in the Hospital of the 4th Veteran Battalion; one officer of that regiment quartered in the South district, died with the same symptoms, and a lady who resided in town, but who had kindly assisted the last mentioned officer during his illness, fell a victim to it on the third day of her indisposition. Mrs. Nicholls also, (whose servant maid was one of the first taken ill) was carried off in forty-eight hours after

being attacked with it; she was so well on Saturday before dinner, as to be able to receive company in her drawing-room, but complained of chilliness and slight head-ach; when a medical gentleman happened to call upon her, felt her pulse, and was surprised to find it beating at the rate of nearly one hundred and forty in a minute; she had the disease in its most aggravated form, and died on the Monday following. The only member of the Minorcan family who has escaped the disease, (a boy,) continued in health during the time of his quarantine, but was attacked the 4th day after his return to his habitation, and died with Black vomiting in less than seventy hours illness.

Upon enquiry, it was ascertained that the Inspector of the district, had neglected to wash and purify the bed which this young man slept upon, and which had been used by some of his family when the disease first made its appearance.

The proofs of contagion here, are so indisputable, that it might be thought unnecessary to make any observations upon them; I shall therefore, only recapitulate, in as few words as possible, that Mr. Arthur, who went on board the transports, and all the sailors who remained on board, caught the disease, while sixty-three out of seventy-seven soldiers, who were removed from the focus of contagion, escaped it. The disease on shore commenced in the Minorcan family, and run through all the members of it, seven in number.

The six soldiers who died, were all taken ill in the same Barrack-room. Mrs. Nicolls caught the disease from her servant; and within the walls of the town, (a mile at least, from the infected district,) only two persons were attacked with the disease, viz. the lady who had assisted Captain Boyd, and the Priest who attended the Minorcan family.

I may also observe, that there was no instance of any person who had passed the disease before, being attacked with it, although several of this description visited and assisted the Minorcan family during the prevalence of the fever.

If further proofs were wanting with respect to the real nature of this disease, we had abundance of them at Gibraltar in September, 1813, the next time it made its appearance in that garrison, when it was again traced to importation. Mr. Fraser, Deputy Inspector of Hospitals, was the medical officer who saw the cases which first created alarm; the following Extract of a Letter from him to me, two months after the commencement of the disease, will shew his opinion of it at the time.

Gibraltar, 15th Nov. 1813.

“ Previously to my making an official statement to the
 “ Board of Health, of the absolute existence of a disease,
 “ which appeared uncommon and alarming, I requested
 “ Dr. Gilpin to visit the cases on which my apprehensions
 “ were grounded, and a very short time evinced the neces-

" sity of decided opinions and firm measures. The symp-
 " toms which struck me, as denoting a disorder different
 " from the common Bilious fever of Gibraltar, were the
 " peculiar appearance of the eyes, the violent pains in the
 " forehead and orbits, the sudden and great prostration of
 " strength, low muttering delirium, in some cases ulcerated
 " sore throat, livid spots, &c. together with a dispropor-
 " tionate fatality; these phenomena soon became more
 " marked, and combined with a regularity of Type which
 " the malady has assumed almost universally; a continued
 " Pyrexia of about sixty hours, giving place to symptoms
 " of debility and putrescency; the yellow skin and light
 " alvine discharge, so universal in the Bilious fever, being
 " very seldom observed, and the irritability of stomach, with
 " vomiting of a dark coloured matter, marked most deci-
 " dedly the existence of a different disorder. Its specific
 " character is still more distinctly marked, *by the exemp-*
 " *tion of all those during the present Epidemic, who have*
 " *formerly had a similar disease*, whilst former attacks of
 " the Bilious Remittent affords no security; the disorder
 " proving equally violent and unsparing to every class of
 " persons, natives, acclimatés, or new comers, visiting every
 " one within the walls who had not had it before, with the
 " exception hitherto of about a hundred."

From queries put to Dr. Gilpin by the members of the
 Medical Board, it appears that the individuals who brought
 the disease into the garrison were ascertained; one of them

was ill when he arrived; the disease was communicated to the persons residing in the same house, and speedily on both sides of the street in which the house was situated. All those who cut off communication with the infected, escaped the disease; of five hundred persons confined to the Dock-yard during all the time of the sickness, there was not an instance of one of them being attacked, although this was, of all others, the most likely spot for Marsh effluvia to exist, and which, during the fever of 1804, suffered equally with other places, in consequence of the communication not having been cut off.

At the commencement of the disease, there were about five thousand persons within the walls who had had it at a former period, either in the West Indies, in Spain, or Gibraltar; and after careful enquiry, there did not appear to be one well authenticated instance of a person being infected a second time. The Spaniards are so fully convinced that the infection cannot be communicated a second time, that a certificate of their having passed the disease, is a sufficient passport through a cordon of troops into an infected town, which they enter without the smallest apprehension. *

* Y ademas se prohibiò la entrada a los que no manifestaban documentos de haberla sufrido, poniendo a este fin guardias en las puertas, consultando por este medio con los sentimientos de humanidad en utilidad-reciproca. En efecto esta prudente precaucion surtio el efecto favorable que se deseaba.

DON MIGUEL IRRIBAREN, *procurador mayor.*

Upon the breaking out of the disease, nearly eight thousand persons left the garrison, the greater part of them were in huts or tents upon the neutral ground; there were very few cases of disease appeared among them, and those happened soon after their emigration, from the contagion being in the system. Upon the neutral ground there is a constant and strong breeze or current of air, sufficient to destroy the contagion of any disease, and in this way the contagion not spreading is to be accounted for this year, although in 1804, when the sick were crowded into temporary barracks or sheds upon the same spot, all the Hospital attendants were attacked by it.

And if the disease had been produced by Marsh Miasmata, and not by contagion, we might have expected the poison to have remained dormant in the constitutions of many persons, and shewn itself after a considerable lapse of time, as was the case at Walcheren; but of this, we had in the present instance no example, for in a few days (as was the case with the soldiers on board the Carthagena Transports) after being removed from the *focus* of contagion, all remained in health.

In the beginning of August, 1811, it was rumoured that the same disease had again made its appearance at Carthagena. Being aware of the advantages with respect to the health of the garrison, to be derived from the establishment of quarantine, and knowing also the disadvantages which it brought upon the mercantile part of the inhabitants, as well as the many privations and inconveniences, which must

accrue from it to all descriptions of persons, I was averse to propose such a measure being resorted to, before it was ascertained to a certainty, that it was absolutely necessary. I therefore proposed to the Lieutenant-Governor, that Mr. Vance, Surgeon to the Forces, should proceed thither for that purpose, which he immediately consented to. The following are my instructions to Mr. Vance, with an Extract from his Report upon his return.

Gibraltar, August 16, 1811.

SIR,

“ In consequence of it having been reported,
 “ through a variety of channels, that a violently contagious
 “ fever (of the same nature as that which prevailed along
 “ the coast of Spain last autumn,) is at present raging at
 “ Carthagená and Alicant, I submitted to his Excellency
 “ Lieutenant-General Campbell, the propriety of sending a
 “ medical officer of experience to both those places, with
 “ the view of ascertaining its real nature, and his Excellency
 “ having approved of your being employed upon this ser-
 “ vice, he has procured from Commodore Penrose, a brig
 “ of war, (the Richmond,) which will be ready in the course
 “ of to-morrow evening to receive you on board, for the
 “ purpose of carrying you to the above mentioned destina-
 “ tions; you will be furnished with letters to the British
 “ Consuls at both places, informing them of the nature of
 “ the duty you are employed upon, and requesting them to
 “ afford you every assistance in their power.

“ Upon your arrival at either Carthagera or Alicant, you
 “ will make strict enquiry respecting the prevailing diseases,
 “ and should there be a contagious fever, you will ascertain
 “ the symptoms from the first attack, to the termination of
 “ the disease.—The number of days of its duration, and the
 “ day on which it generally proves fatal.—Whether it has
 “ attacked many members of the same family, or inhabitants
 “ of the same house or street.—Whether any of the persons
 “ who were attacked with it last year, or in the year 1804,
 “ have been attacked with it this year.—In what number of
 “ days the disease generally shews itself, in persons after
 “ having been exposed to the contagion.—The date of its
 “ first appearance in Carthagera this year, and whether it
 “ existed during the whole of the winter, or that its origin
 “ can be accounted for from local circumstances, or from
 “ importation. And lastly the number of persons that have
 “ died daily since the commencement of the disease.

“ You are aware that the disease most likely to be con-
 “ founded with the Bulam fever, (which we have so much
 “ reason to dread,) is the Bilious Remitting fever of this
 “ climate, and from your knowledge of both, (if many
 “ cases exist,) you will have little difficulty in drawing a
 “ line of distinction. The Bulam fever is remarkable for
 “ the suddenness of its attack, the violent pain immediately
 “ over the orbits, with a peculiar glassy or drunken-like
 “ appearance of the eyes themselves; the great quickness of
 “ pulse, being at the commencement from 110 to 140;

“ the intense and peculiar heat of the skin, which seems to
 “ adhere to the hand after having touched the body of a
 “ patient; the great irritability of stomach, with frequent
 “ vomiting, at first of a bilious or greenish matter, and
 “ towards the close of the disease of a brown or black
 “ colour, resembling the grounds of coffee. This last is the
 “ most fatal, as well as the most distinctly marked symptom
 “ of the disease, and when united with a very speedy ter-
 “ mination, (proving fatal very often in fifty hours, but
 “ generally on the third or fifth day) there can be little doubt
 “ as to its real nature. Swellings in the glands sometimes
 “ occur, hæmorrhages and suppression, or rather non-se-
 “ cretion of urine frequently, and before the black vomiting
 “ begins, there is generally great flatulence of stomach,
 “ hiccough, and a change in the countenance, from a florid
 “ colour, to a bloated, dingy or putrid appearance; at this
 “ time also the pulse sinks very much, and beats in some
 “ cases so slow, as forty in a minute. Yellowness of the
 “ skin frequently appears in bad cases towards the close of
 “ the disease; it begins in the eyes, and spreads over the
 “ body, but is generally of a *lighter colour* than in the Bilious
 “ Remitting fever.

“ In this last disease the pulse is much fuller, but not so
 “ quick; the yellowness of the skin is more frequent, begins
 “ earlier, and is of a deeper colour; *remissions are observable*,
 “ the disease continues to the ninth or thirteenth day, is rarely
 “ if ever attended with black vomiting, and, in my opinion, is

“ almost always combined with affection of the liver; patients
 “ after recovery from the Remitting fever, being very gene-
 “ rally subject to obstruction or disease of that viscus.

“ Should the wind be favorable, you will probably visit
 “ Alicant first; I shall be glad to hear from you as soon as
 “ you have visited either place, (by any vessel destined for
 “ this Bay.) I recommend you, when returning from the shore
 “ to change your clothes, and bathe before you go on
 “ board, by which precaution, *as you have had the disease*
 “ *before*, the Brig will not be put in quarantine upon your
 “ return.

I have the honor to be, &c.

R. Y. Vance, Esq. Surgeon
to the Forces.

W. PYM.

MR. VANCE'S REPORT.

His Majesty's Brig, Richmond, September 1, 1811.

SIR,

“ In obedience to the orders of his Excellency,
 “ Lieutenant-General Campbell, and the instructions I re-
 “ ceived from you, to proceed to the Ports of Carthagera
 “ and Alicant, for the purpose of ascertaining the nature
 “ of the disease said to prevail in those places, I have now
 “ the honor to inform you, that after making the most
 “ minute investigation in the Lazaret, City and Royal
 “ Hospitals in Carthagera, I have no hesitation in de-
 “ claring, that the same disease exists there at present, which

“ prevailed in the years 1804 and 1810; and which, with
 “ some variations, I have witnessed so many Europeans
 “ fall victims to in the West Indies.

“ The patient is generally attacked suddenly with cold
 “ shiverings, pains in the head, back, loins, and thighs.
 “ The skin becomes excessively hot; the pain of the head
 “ increases, particularly over the orbits; the eyes them-
 “ selves appear to the patient as if forcing from their
 “ sockets, have a particular red or fiery appearance, and
 “ the whole face appears considerably flushed: a conti-
 “ nual restlessness prevails, the patient constantly throwing
 “ himself from one side of the bed to the other. At this
 “ period the pulse is very frequent, seldom under 120, and
 “ generally much more: considerable irritability of stomach
 “ always prevails; the vomiting is at first of a bilious appear-
 “ ance, and sometimes only the drink that has been swal-
 “ lowed; but as the disease advances, it assumes a darker
 “ colour, and at last depositing a grumy sediment resembling
 “ the grounds of coffee. From this stage of the disease
 “ no patient has been observed to recover; and in those
 “ cases that have terminated fatally, or assumed the most
 “ serious appearance, suppression of urine has generally
 “ taken place. On the first attack the tongue has generally
 “ a white appearance, which gradually becomes darker,
 “ with a brown streak in the centre, and towards the close
 “ of the disease becomes quite black, furred and dry.
 “ When the disease has advanced rapidly, the patient often

“ becomes delirious on the second day, and dies either
 “ furious or comatose on the third, and sometimes the fifth;
 “ but when the crisis has taken place on the seventh day,
 “ the black vomiting has been most frequent. In some
 “ who have died comatose on the fifth day, a consider-
 “ able quantity of pure blood has been vomited up:
 “ sometimes the patient, after walking about and declaring
 “ himself well, has died perhaps in a few minutes.

“ About the third day the eye loses its red appearance,
 “ and becomes tinged of a yellow colour which gradually
 “ extends to the face, neck, breast, &c.; and before death,
 “ generally assumes a lead or putrid like appearance. The
 “ pulse previous to this has sunk considerably, and seldom
 “ strikes oftener than from fifty to sixty times in a minute.
 “ Hæmorrhages from the nose, mouth and ears have fre-
 “ quently happened, and Vibices have sometimes made
 “ their appearance, as well as deafness and glandular swel-
 “ lings.

“ On the first attack the patient is generally costive, but
 “ previous to death diarrhœa often takes place; and what
 “ is voided has always a black putrid appearance, and
 “ excessively fœtid smell. All these symptoms have not
 “ made their appearance in the same patient; but I have
 “ observed the whole in the numerous cases which pre-
 “ sented themselves in the Lazaret and other hospitals in
 “ Carthage. The disease has not been confined to any

“ particular part of the town, *nor is any person exempt*
 “ *from it who has not had it in the years 1804 or 1810.*

“ I must beg leave to observe, that the number of deaths
 “ that has taken place has not been exclusively occasioned
 “ by the yellow fever. The Bilious Remittent prevails here
 “ also, and in the Royal Hospital I observed many of
 “ the soldiers labouring under what we call the jail fever,
 “ which they must have brought with them from the army.

“ The physicians cannot account for the disease making
 “ its appearance this year in Carthagená; but I have good
 “ reason to suppose it might have remained dormant during
 “ the winter, till roused into action again by the summer’s
 “ heat; and I am more disposed to favour this opinion,
 “ from the circumstance of their using so little precaution
 “ last year, neither destroying the bedding, clothes, or other
 “ furniture, of any of the people who died of the disease,
 “ as they had done in the year 1804; and I am sorry to
 “ observe, that they have gained very little by experience,
 “ as they pursue the same system to the present moment.

“ The winds for several months have blown from the
 “ Levant, and the thermometer has generally ranged from
 “ 82 to 86° of Farenheit’s scale.

“ In Alicant there is not the slightest degree of contagion
 “ existing at present, nor does it appear to have been so free

“ from disease of any kind at any period for a series of years
 “ back. In the Town of Elche, about four leagues distant,
 “ the yellow fever is said to have made its appearance, in
 “ consequence of a soldier from Carthagená, with five or six
 “ people who assisted him in his illness, having died after a
 “ few days’ sickness; but the communication with that part
 “ of the town they resided in, having been cut off, both
 “ sickness and mortality are said to have ceased; and as a
 “ cordon was placed between the two towns, and a most
 “ rigid quarantine established, had I availed myself of
 “ ocular information, I should not have been admitted into
 “ Alicant again. In Murcia, the capital of the province,
 “ and distant about thirteen leagues from Alicant, the
 “ disease has made its appearance with much more serious
 “ effects. It is also said to have been carried there by some
 “ refugees from Carthagená, and the Junta of Alicant have
 “ placed it in a state of quarantine in the same manner as
 “ that of Elche. However, as the cordon is placed so far
 “ from the city, and little attention paid to persons coming
 “ from the eastward, together with the numbers of people
 “ rushing there from the various places near Carthagená,
 “ where the French have made their appearance, I am
 “ strongly of opinion that that place will not long be able to
 “ escape it. I have the honor to be, &c.

“ RICHARD YOUNG VANCE,

“ *Surgeon to the Forces.*”

Wm. Pym, Esq. Deputy Inspector
of Hospitals, &c. &c. &c.

I think it necessary to mention here, that this disease was never known to exist at Carthagená before the year 1804, when it was traced to importation by smugglers. The next time it made its appearance was in 1810, when there was no doubt of its having been carried there by a vessel which landed twenty-six of her crew labouring under the disease, thirteen of whom died the day after. We have in this Report of Mr. Vance's, proofs of the existence of a distinct disease, of its contagious powers, and of its attacking but once. At the village of Elche we have a fact of the same nature as what occurred at Algeziras when the disease was imported to this last place from Cadiz, it was communicated to a few of the inhabitants, and was put a stop to by cutting off communication; the inland town of Murcia we also find infected, although Alicant, a sea port, subject to marsh fevers and agues, by cutting off communication, escaped it. The next and last proofs which I shall bring forward of the disease being *contagious*—of the disease which prevailed at Gibraltar being the same as that which prevails in the West Indies—and of its attacking the human frame but once—are the following Extracts of Letters from Mr. Rocket, Deputy Inspector of Hospitals at Jamaica, to Mr. Keate, Surgeon-general, respecting the 54th Regiment, which was stationed at Gibraltar during the epidemic of 1804.

*Extract from Mr. Rocket's First Letter.**Jamaica, 15th October, 1808.*

“ I am sorry to report that a violent *continued* fever has
 “ broken out in the 54th Regiment, attended with considerable
 “ loss. It seems to be their seasoning fever, for though the
 “ Corps has been twenty months in the country, it had not
 “ ere this, been afflicted with it. The rains have been heavy
 “ and incessant for a fortnight, to which, perhaps, may be
 “ attributed the production of the disease.

“ The 54th Regiment (quartered at Stoney Hill,) has de-
 “ tachments at Up Park, Apostle's Battery, and Kingston,
 “ all of which have been attacked with the disease; thus
 “ evincing that it is not confined to a particular situation,
 “ but to a particular Corps, for other Regiments in the same
 “ quarters have not been affected by it.”

*Extract from Mr. Rocket's Second Letter.**Jamaica, 14th November, 1808.*

“ In my Letter of the 15th ult. I mentioned that a fever
 “ had broken out in the 54th Regiment, since that period it
 “ has been going progressively through the corps, and oc-
 “ casioned a lamentable mortality, sparing neither officers,
 “ privates, women, nor children.

“ The disease is the Ardent Yellow fever, ushered in with
 “ violent head ach, eyes turgid and inflamed, countenance

“ flushed, darting pains through the orbits, and in the calves
 “ of the legs.

“ Of the various modes of treatment which have been
 “ tried, the following seems to be the only one which ap-
 “ pears to have made any impression upon the disease, viz.
 “ to commence with active purgatives and injections. If
 “ the patients are not freely evacuated a few hours after the
 “ attack, the case has almost always terminated fatally; but
 “ from the excessive constipation of the bowels, this has
 “ been found extremely difficult, and in many cases utterly
 “ impossible. The warm bath, and frequent sponging of
 “ the surface of the body, has had a decided preference to
 “ the cold affusion.

“ After cleansing the primæ viæ, the mercurial treatment
 “ has been pushed on as speedily as possible, and where
 “ Ptyalism could be brought about, the most favourable
 “ symptoms invariably followed. But from the irritability
 “ of stomach, which has been a constant and tormenting
 “ attendant, no reliance could be placed on medicine given
 “ by the mouth, frictions therefore were necessarily had
 “ recourse to.

“ Mr. Redmond, Surgeon of the Regiment, having been
 “ at Gibraltar during the prevalence of the disease there,
 “ was perfectly prepared to encounter the melancholy and
 “ distressing scene.

“ The fever is precisely the same as that I have so often
 “ seen at Martinique, Grenada, and the other windward
 “ islands, commonly called the Ardent, Continued Yellow or
 “ Bulam Fever, and which has always been attended with
 “ such lamentable mortality.

“ I am sorry to remark, that since its first appearance in
 “ 1793, little progress has been made towards its cure ; it
 “ seems to laugh to scorn all the efforts of medicine, and the
 “ longer a medical man remains in the West Indies, the more
 “ he is puzzled in forming his opinion concerning the best
 “ mode of treatment, the proportion of deaths being nearly
 “ the same in all.

“ Three hundred cases of the 54th have been admitted;
 “ there are still from 100 to 150 unattacked, and there is
 “ every reason to suppose the disease will not disappear,
 “ until the whole have felt its effects.

“ *It is worthy of observation, that not a single soldier*
 “ *of the 54th Regiment (of whom there are at least forty)*
 “ *who had the fever in Gibraltar, has suffered from it*
 “ *here, and I think the same was remarked at Gibraltar,*
 “ *of those who had had fever in the West Indies.*”

This Tropical continued fever, has been very generally considered a concentrated form of disease, produced by the

action of Marsh Miasmata upon the constitutions of newly arrived Europeans, in warm climates, and that the same poison, when acting upon the constitutions of natives, or Europeans assimilated to a warm climate, only produces an Intermitting or Remitting fever.

How can we reconcile this opinion, after reading the preceding letters from Dr. Rocket?

Here we have the 54th, the only Regiment suffering from the disease, although in three different quarters, in common with other troops; a regiment also which had been twenty months in that climate. If predisposition was necessary to an attack of the disease, the men of this regiment would have been certainly much more likely to have been attacked by it immediately upon, or soon after their landing from the transports, than after having been long enough in the country to have seasoned a whole army; for, I believe, the troops of St. Domingo, in much less time, lost many thousand men.

Does it not appear a strange infatuation, that men of science and ability, with such positive proofs of contagion before their eyes, should dream of Seasoning, Predisposition, and Marsh Miasmata! If they had been acquainted with this one fact, that the disease attacked but once; that the other regiments in the same quarters with the 54th, having been a longer time in the country, had passed the disease,

and were not liable to it a second time! Would they have attributed this prevalence of disease in one regiment, when mixed with others, to any other cause than the real one, *Contagion*; when they saw it of a sudden attack and spread devastation through a corps, sparing neither men, women, nor children, excepting the few individuals (forty in number), who had passed the disease at Gibraltar? And when this last circumstance was known, does it not appear still more strange, that some measures of precaution were not had recourse to, for the purpose of checking its baneful influence? But the mistaken idea of Seasoning still prevailed, and the other regiments having undergone this supposed Ordeal, it was thought unnecessary, or impossible, to attempt any measures, with the view of preventing that change, which it was supposed necessary for the European constitution to undergo (even after a residence of nearly two years) in the West Indies: and it having been now ascertained that the disease has existed at Cadiz and Gibraltar, where there is no trace of marsh miasmata; where natives of all climates escaped a second attack of it; and where Europeans, assimilated to a warm climate (viz. the 10th Regiment),* had it in the same continued, though in a much milder form. When, according to the general opinion, if

* This regiment, during eighteen months it was quartered at the same Post of Stoney Hill, in Jamaica, in the year 1792 and 1793, lost only nine men.—*Lempriere*, vol. 1, page 147.

marsh poison had been the occasion of it, the men of the 10th would have been attacked with Remitting or Intermit-fever; which, however, was not the case, nor was there the slightest suspicion of the existence of either of the two last diseases among the many thousands who were attacked with the epidemic.

Since writing the above, I have received the following letter from Mr. Redmond, Surgeon to the 54th Regiment; which, in my opinion, throws more light upon this disease, than all the volumes which have been written upon it.

“ Nicuport, Flanders, February 11, 1815.

“ MY DEAR SIR,

*“ Whatever service my observations may be in
“ elucidating the subject of your queries, I freely give them
“ in as clear and concise a manner as I possibly can.*

*“ 1st.—I am decidedly of opinion, that the Fever under
“ which the 54th Regiment suffered in Gibraltar in 1804,
“ and again in Jamaica in 1808, was the same disease,
“ and both infectious; of the latter I will state the
“ following proof. Upon the arrival of the regiment in that
“ island, it was quartered at Stoney Hill, a post, from its
“ high situation, in general healthy; and from its detached
“ position, had but little communication with other corps.
“ In this quarter it remained nearly eighteen months, without*

“ any appearance of the Disease, until a detachment was
 “ sent to Fort Augusta, and quartered together, with others,
 “ in Barracks with the 2d West India Regiment, where
 “ several men contracted the disease; and upon the detach-
 “ ment’s return to the hill, the fever passed progressively
 “ through the Regiment. In a few weeks, my two assist-
 “ ants (one of whom died), and twenty out of twenty-one
 “ hospital attendants, were infected.

“ As all fevers in the West Indies are too generally
 “ termed Yellow Fevers; and, as I am convinced that this is
 “ of a distinct nature, I will call it by that name which I
 “ think most applicable—the Yellow Continued Fever.

“ 2d.—Having in my possession the names of the officers
 “ and men who had recovered from the Gibraltar fever of
 “ 1804, I was particularly attentive to ascertain if any of
 “ those would be attacked with the Yellow continued fever
 “ of 1808; not a single case occurred, either then, or at
 “ any other time during the five years I was in that island.
 “ Latterly, men were selected from this list, as hospital at-
 “ tendants, which duties they performed with perfect safety
 “ to themselves; the single attendant above alluded to, and
 “ myself, being marked instances of escape under that
 “ head.

“ 3d.—I had frequent opportunities of seeing the Bilious
 “ Remittent in Jamaica, and of comparing the two diseases

“ I will therefore point out those which I consider the distinguishing symptoms.

“ The Yellow continued was marked by its being infectious, attacking all ages, sexes, and constitutions; appearing in all seasons; not influenced by situation, nor its violence mitigated by a removal to a drier atmosphere, being a fever of one paroxysm, passing rapidly, from high arterial excitement, to exhaustion; commencing, in general, suddenly, without previous indisposition. Deep seated pain in the orbits and temples; peculiar inflamed glassy eye; pungent heat of the skin; obstinate constipation of the bowels; general torpor of the nervous system; black vomit, and early putridity after death; vesicles and abrasions of the cuticle taking place, sometimes even before life was extinct. Where recovery took place, the convalescence was short, the constitution quickly returning to its former vigour.

“ I never saw a second attack of this fever, nor do I believe the human frame susceptible of its action more than once during life!!

“ Those of the Bilious Remittent were, its prevalence in the autumnal seasons, not infectious; more frequently attacking men than women and children; considerably influenced by a marshy situation, and benefited by a removal to a drier atmosphere; generally preceded by

" languor and indisposition; pain of the head, felt mostly
 " upon the upper part of the forehead and crown; the
 " bowels in general easily acted upon; considerable nervous
 " irritability; nausea and vomiting, of a yellow or greenish
 " bilious matter, returning with each exacerbation; be-
 " coming, towards the latter stage of the disease, much
 " darker, or of a brown color (often mistaken for, though
 " easily distinguished from, the true black vomit); death
 " sometimes taking place in a few days; but, more fre-
 " quently, the patient was worn out by the repetition of
 " exacerbations. Where recovery took place, the conva-
 " lesence was tedious, and subject to relapses, rendering
 " the constitution more susceptible of succeeding attacks,
 " and often laying the foundation of obstinate intermittents,
 " and other chronic diseases.

" Vomiting was not a constant symptom in the Yellow
 " Continued: where the stomach was loaded at the com-
 " mencement, it generally discharged its contents; where it
 " came on in the latter stage, it could not be restrained, and
 " ended in copious ejections of that coffee-ground-like
 " matter, called Black Vomit. In the Bilious Remittent
 " this symptom was evidently accompanied by a diseased
 " action of the liver; and although much more frequent,
 " was a much less dangerous symptom in this than the
 " other fever.

" Yellowness of the skin, although common to both,

“ was not a constant attendant on either; in the Yellow
 “ Continued it resembled that which follows severe con-
 “ tusions, in the Bilious Remittent more that of common
 “ Jaundice.

“ 4th.—I saw bleeding used in Gibraltar in 1804 several
 “ times, and in one instance to a considerable extent; but
 “ in all without success. In the Yellow Continued, in
 “ Jamaica, it was tried in a few cases, at the request of
 “ Deputy Inspector Rocket, when its effects were a rapid
 “ sinking of the pulse to an alarming degree: I feel no
 “ hesitation in saying I always found it prejudicial; nor
 “ could I ever learn that its use had been attended with
 “ success in this fever.

“ 5th.—From no such fever having been known in
 “ Gibraltar previous to 1804, and from a similar disease
 “ prevailing at that time in Cadiz, and other parts of Spain,
 “ I am of opinion it was imported into that garrison.

“ On the introduction of this fever into the regiment, in
 “ 1808, I stood alone in declaring my opinion, of its distinct
 “ and infectious nature, to Deputy Inspector Rocket, who
 “ told me it was contrary to the generally received opinion in
 “ the West Indies: he however soon advised the usual means
 “ for the prevention of infection; and after repeatedly com-
 “ paring it with the Bilious Remittent, declared they were
 “ not the same disease, and that the Yellow Continued was

“ the most malignant fever he ever witnessed. Although
 “ this is evidently the same as described by Chisholme, I
 “ cannot speak with equal confidence of the mercurial plan:
 “ where its action could be excited, recovery generally
 “ followed; but often the rapidity of the disease, and the
 “ excessive torpor of the system, resisted the power of that
 “ or any other medicine: for what could be done for such
 “ a disease, which I have seen terminate in death in eigh-
 “ teen hours, frequently in thirty-six, but more generally in
 “ three days? its duration no doubt considerably shortened
 “ by the heat of a tropical climate.

“ Believe me to be your's, &c.

“ GEO. REDMOND.”

I shall next insert the Extract from the Report made by the Commissioners sent into Spain by the French Government.

Upon their arrival at Barcelona, they wrote to their Am-
 bassador at Madrid (Lucien Buonaparte) for instructions;
 from whom they received the following reply, and im-
 mediately proceed upon their journey towards Cadiz and
 Seville.

Madrid, 26 frimaire, an 9.

“ Votre lettre du 15 de ce mois, Citoyens, m'annonce
 “ que vous attendez à Barcelone, les instructions qui vous

“ sont nécessaires pour continuer votre voyage. Dans la
 “ circonstance où vous vous trouvez, et placés comme vous
 “ l’êtes sur les lieux, je pense que ce n’est pas d’après des
 “ inductions lointaines, mais d’après vos propres lumières,
 “ que vous devez diriger vos pas pour parvenir au but que
 “ le Gouvernement s’est proposé en vous envoyant en
 “ Espagne. Il me semble que c’est à Cadix même que
 “ vous pourrez mieux pénétrer les causes et suivre les effets
 “ de la maladie que vous avez à étudier.

“ La France, l’Europe entière a les yeux ouverts sur
 “ votre mission, Citoyens; croyez que je partage avec tous
 “ Philantropes, l’intérêt qu’un travail si important leur in-
 “ spire, et que je ne négligerai rien pour en assurer le
 “ succès.

“ LUCIEN BONAPARTE, (signé)”

Origine de la maladie, son invasion, sa propagation.

Il est impossible aujourd’hui de se refuser à croire que Cadix ait été le premier foyer de la maladie. Les faits sur lesquels cette opinion est fondée, sont trop nombreux et trop concluans, pour qu’il soit permis de conserver, à cet égard, le moindre doute : il suffira de citer le plus saillans.

C’est du 10 au 15 dû mois d’août que se manifesta dans

Cadix une maladie grave qui, dès son début, se fit remarquer par l'appareil des symptômes de putridité et de malignité portés à l'extrême. Elle attaqua d'abord quelques habitans du quartier Ste. Marie, placé à l'Est de la ville, dont les rues sont étroites et ordinairement moins propres que celles des autres quartiers, et qui est principalement habité par les marins, les ouvriers du port, et les employés de la douane. Elle fut véritablement stationnaire pendant quelque temps dans ce même quartier, d'où elle se répandit ensuite dans toutes les parties de la cité.

Quoique l'époque que je viens d'indiquer soit véritablement celle à laquelle les Médecins et les Magistrats commencèrent à concevoir des justes alarmes, attendu que le nombre des maladies étoit alors tel, qu'il devoit nécessairement faire sensation; et quoique ce soit celle que l'opinion générale désigne comme l'époque de l'invasion de la maladie à Cadix, il existe cependant des faits qui prouvent incontestablement qu'il faut lui en assigner une autre bien antérieure.

Il est certain en effet que déjà vers la fin de juillet, quelques habitans des rues Sopranis et Boqueta étoient atteints d'une maladie qui se déclara avec les mêmes symptômes malins qu'on observa dans la suite chez tous les autres malades. On sait que ces individus furent précisément ceux qui avoient eu quelque relation avec l'équipage d'une Corvette Américaine arrivée depuis peu de la Havane; on sait

que ces premiers malades furent ou des marins, ou de hommes de peine du port, et plus particulièrement des employés de la douane et du bureau de santé; on sait aussi que plusieurs succombèrent, et entr'autres le greffier du bureau de santé, le visitoir de la douane (el visitador de rentas), le garde principal de la porte de mer; on sait que les deux gardes placés en surveillance sur la corvette immédiatement après son entrée dans le port, tombèrent aussitôt malades, en sorte qu'on fut obligé d'en retirer celui qui parut l'être d'une manière plus grave, tandis que l'autre essuya sa maladie à bord. On rapporte enfin que ce dernier voyant passer à portée du navire sur lequel il se trouvait encore, le Lieutenant-visiteur (el teniente visitador) Don Francisco de Paula Carrion, l'appela à son secours, et lui dit que depuis l'instant où il avait été placé sur cette embarcation, il était tourmenté par une fièvre cruelle qui avait presque entièrement détruit ses forces. Le visiteur se rendit aussitôt sur ce même navire; il vit en effet le garde dans un très-mauvais état; il vit également trois matelots de la corvette, maigres, et pouvant à peine se soutenir, qui lui déclarèrent être tombés malades avant que le navire eût obtenu l'entrée, ce qui lui avait été accordé neuf jours après son arrivée.* Depuis ce moment-là le visiteur éprouva un sentiment d'inquiétude, un mal-aise, tel qu'on l'éprouve durant les pro-

* Ce navire, d'après la déclaration faite par les officiers, avait perdu neuf hommes dans la traversée.

dromes d'une maladie. Au bout de quelques jours il fut obligé de s'aliter, et *toute sa famille, très-nombreuse, éprouva bientôt le même sort.*

Je puis encore citer ce qui arriva, à cette même époque, à un Chanoine de l'Eglise, cathédrale don Christoval Sanchés, qui logeait dans un quartier bien éloigné de celui de Ste. Marie. Ce Chanoine, propriétaire d'une maison située dans ce dernier quartier, fut obligé de s'y transporter pour affaires: il y resta néanmoins très-peu de temps, ainsi qu'il l'a déclaré lui-même, n'ayant pu supporter une odeur particulière dont il se sentit frappé en entrant dans la chambre d'un malade. Il dit en rentrant chez lui, qu'il n'avait jamais éprouvé rien de pareil; que ces exhalaisons lui avaient porté un coup terrible, et que depuis cet instant il ne se sentoit pas bien.

Dans cet état d'anxiété il se couche; mais l'agitation augmente et le lendemain se développe en lui, une maladie caractérisée par les symptômes les plus graves. Le médecin qui lui donna ses soins a assuré que ces symptômes étaient absolument les mêmes que ceux qu'on a observés dans la suite sur les autres malades: enfin cet infortuné ecclésiastique succomba le 27 Juillet, troisième jour de sa maladie, ou pour mieux dire, cinquante-six heures après son invasion; et ayant éprouvé dans un aussi court espace de temps les accidens les plus caractéristiques de la malignité, anéantissement subit des forces, dissolution extraordinaire et prompt des humeurs, etc. etc.

J'ai déjà dit que le quartier habité par le chanoine Sanchés, était très-éloigné de celui dans lequel la maladie était encore concentrée au moment dont je parle: je dois ajouter qu'il a été un des derniers ravagés par elle; il paraît donc que c'est la circonstance particulière de sa visite au Barrio Sta. Maria qui détermina en lui l'infection: l'on peut également conclure de là que la maladie étoit éminemment contagieuse dès son origine.

Enfin je dois rappeler ici, pour le même objet, le témoignage d'un savant praticien, qui au 15 d'Août avait déjà deux cents malades à traiter, ainsi que celui du professeur Ramos qui à cette même époque voyait dans le couvent de la Merced, bâti au milieu du quartier de Ste. Marie, vingt-huit religieux dangereusement malades. Ces religieux avoient assisté jusqu'à leur dernier moment les malheureux habitants du quartier Ste. Marie dont il a été parlé.

On ne s'étoit encore aperçu à cette époque d'aucun événement extraordinaire à Séville. Il est certain néanmoins que cette grande cité a été la première affectée après Cadix. Il n'y avait également aucun indice de l'existence de la maladie ni à Xérés, ni à San Lucar, ni au Port Ste. Marie, ni dans les autres lieux qu'elle a parcourus et ravagés dans la suite. J'ai même déjà remarqué qu'elle était, pour ainsi dire, encore renfermée dans un des quartiers de Cadix.

Mais si l'on se rappelle que ce quartier, el barrio Sta.

Maria est celui dans lequel les marins de Cadix ont leur domicile; si l'on se rappelle encore que Séville et Cadix sont journellement en communication, par les hommes de cet état, ainsi que par ceux qui vivent de la contrebande; si l'on ajoute que l'intendant, arrivé de la Havane, à Cadix sur la corvette Américaine, passa bientôt après à Séville avec sa famille et sa suite, et qu'il s'y rendit en remontant le Guadalquivir, on trouvera dans tous ces faits une explication au moins très-probable par rapport à la rapidité avec laquelle la maladie se communiqua de Cadix à Seville.

Il n'entre point dans notre plan d'indiquer avec une précision rigoureuse qu'elle a été la voie d'une pareille communication, ni de constater d'une manière légale si la contagion a été disséminée par la suite de l'Intendant, par des marins, par des contre-bandiers, ou même par des marchandises. Du reste, cet événement malheureux, quels qu'en aient été les auteurs, fut certainement alors le résultat d'une imprudence et non d'un crime réfléchi. Nous n'avons d'autre intérêt dans nos recherches que celui de découvrir une vérité médicale d'une très-grande importance pour l'humanité.

Nous dirons donc avec le courage et la franchise que nous commande notre double caractère d'observateur et d'historien, que la maladie a été portée directement de Cadix à Séville par la voie de mer; et ce qui le prouve évidemment c'est, 1^o que les bourgs, les hameaux et autres lieux habités, situés sur les rives du Guadalquivir, entre Séville

et Cadix, n'ont été infectés que quelque temps après ces deux villes; 2^o que les villages situés sur la route de terre, n'ont éprouvé la maladie qu'après un intervalle de temps plus considérable, et seulement lorsque des fugitifs de Cadix ou de Séville s'y furent introduits; 3^o que la maladie se déclara d'abord à Séville dans le faubourg qu'habitent les mariniers, ainsi que les ouvriers journellement occupés au cabotage, qui a lieu entre cette ville et Cadix. Ce faubourg est celui qu'on appelle Triana; il est bâti au sud-ouest de la cité, et en est séparé seulement par le fleuve.

Les recherches les plus circonstanciées nous ont appris, que les premiers malades connus de Triana, furent des individus d'une famille dont l'unique profession était le cabotage. Tous les membres de cette famille assez nombreuse (los Lebrones) périrent en très-peu de temps à l'exception d'un seul.

Introduite dans le faubourg de Triana, la maladie y resta concentrée pendant plus de 15 jours; du moins ne s'étendit-elle pas bien loin pendant ce temps-là: nous en avons la preuve dans un édit publié à Seville, le 3^e Septembre, 1800; cet édit émané de don Antonio Fernandés Soler, défend aux habitans de Triana et autres quartiers de Séville de changer de domicile sans en faire part aux Magistrats, seuls chargés de juger s'il peut en résulter quelque inconvénient. La maladie exerça bientôt des ravages terribles dans ce faubourg; toutes les maisons furent infectées presque à la fois; la dé-

solation y fut pour ainsi dire à son comble en quelques instans, à cause des difficultés qu'il devait nécessairement y avoir dans la distribution des secours de tous les genres, soit préservatifs soit curatifs; et encore plus souvent à cause de leur inutilité.

Voilà donc une conformité bien réelle et qui mérite d'être notée entre les événemens malheureux qui eurent lieu tant à Cadix qu'à Séville, dans les premiers momens de l'introduction de la maladie: dans l'une et dans l'autre de ces deux villes, elle se manifeste en un point unique; elle s'y propage de proche en proche; et passant de maison en maison, d'un individu à un autre individu de la même famille ou de la famille la plus voisine, elle n'épargne ni sexe, ni âge; elle ne trouve point de barrière suffisante dans les différences des constitutions, des idiosyncrasies, des professions, des habitudes, du régime, dans les diverses situations relatives à l'état particulier de propreté ou d'aisance des diverses personnes qui se trouvent placées sur sa route. Enfin, se montrant partout dans son extension indépendante de toute autre cause, on la voit toujours se propager par la communication directe des personnes et des effets: l'observateur impartial peut aisément en suivre les traces pas-à-pas; n'est-ce point là la marche naturelle et nécessaire d'une affection contagieuse au plus haut degré?

Tandis que la maladie prenait ainsi chaque jour un nouvel accroissement, on vit une foule d'habitans de chacune des

viles infectées s'en éloigner successivement, et se réfugier dans des villes voisines, des villages, des maisons de campagne. Mais parmi ceux qui se décidèrent à prendre ce parti, il en est beaucoup qui se sentaient déjà malades : plusieurs ne partirent qu'après avoir rendu tous les services qui dépendaient d'eux à des amis, à des parens qu'ils venaient de perdre ; ils avaient donc tous-plus ou moins communiqué avec des contagiés.

Ces fugitifs furent reçus pendant long-temps dans les divers endroits où ils se présentèrent, sans qu'on prît à leur égard aucune précaution. C'est ainsi que des familles entières de Cadix emportant avec elles des effets, se transportèrent à Chiclana, à Puerto-Real, à la Isla, au Porte Ste-Marie, à San Lucar, à Xerez de la frontera, etc. etc. Dans le tableau général que la Municipalité de Cadix a fait dresser et publier touchant les effets de la maladie, elle porte à quatorze mille le nombre des personnes qui en émigrèrent à cette époque. Il est certain que les émigrations de Séville comme de Cadix eurent lieu dans tous les temps de la maladie. Je pourrais rappeler à ce sujet l'édit du 3 Septembre, et plusieurs autres postérieurs à celui-ci, qui ont tous pour objet principal de défendre des changemens de domicile.

En un mot, tout le monde sait qu'à mesure que la maladie se manifestait dans une ville ou dans un village, les particuliers les plus aisés, tous ceux qui étaient assurés de se procurer ailleurs un asile, prenaient la fuite, et parvenaient,

d'une manière ou d'autre, à se faire recevoir là où elle n'avait pas encore paru.

Il est inutile sans doute d'entrer minutieusement dans tous les détails de notre voyage de Barcelone à Valence, et de Valence à Carmona; de parler des dangers que nous avons courus, des fatigues que nous avons essuyées.

Ce fut à Cordove que nous entendîmes parler, pour la première fois, de la maladie de l'Andalousie, comme s'y étant déclarée vers la fin du mois de Septembre, mais seulement chez quelques individus qui, fuyant de Cadix, avaient été forcés de s'arrêter dans cette première ville. Ils furent reçus à l'hôpital, et y furent traités par un Médecin instruit, qui ne tarda pas à s'apercevoir que la maladie dont ils étaient atteints présentait un caractère et des phénomènes absolument semblables à ceux qu'on savait avoir existé chez les malades de Cadix et de Séville: il eut, en conséquence, le bon esprit de les faire placer dans un endroit séparé. L'événement justifia la sagesse de cette précaution; car malgré les soins les mieux entendus, quatre de ces malheureux étrangers succombèrent après quelques jours d'une maladie dans laquelle on observa, comme je l'ai déjà dit, les divers symptômes de la maladie qu'ils apportaient de Cadix; et cependant cette même maladie ne se propagea point dans Cordove; le germe en fut concentré et étouffé, dans l'hôpital.*

* Depuis cette époque les Magistrats redoublèrent de sur-

On ne prit pas les mêmes précautions à la Carlota, petit bourg situé sur la route de Cadix, à cinq lieues au delà de Cordove. Des fugitifs malades y apportèrent la contagion; et ce qui prouve que telle est l'époque et l'origine de la maladie à la Carlota, c'est que les premiers individus de ce bourg qui s'en trouvèrent atteints et bientôt après les victimes, furent précisément ceux qui communiquèrent avec les étrangers, c'est-à-dire, le maître et les domestiques de l'auberge. De ce point, d'abord unique, la maladie passa dans les maisons voisines placées sur le même côté de la rue; elle se répandit ensuite dans tout le bourg, pénétra dans toutes les maisons, et enleva en très-peu de temps plus du tiers de la population.

Il n'est peut-être pas ici hors de propos, d'établir un rapprochement entre les faits que je viens de citer relativement à Cordove et à la Carlota.

C'est à-peu-pres à la même époque que des malades s'introduisent dans ces deux endroits. Dans le premier, on séquestre ces malades, et la contagion n'a pas lieu; dans le second, on néglige cette précaution, et la maladie se déclare premièrement dans la maison qu'habitent les contagiés; elle se communique à ceux qui les approchent, gagne ensuite

veillance. Une police rigoureuse de santé fut établie et observée; et nous avons eu la satisfaction d'apprendre, lors de notre second passage à Cordove, que ces précautions avaient préservé la ville d'une nouvelle menace d'infection.

comme un incendie de proche en proche, et semble ne s'arrêter que lorsqu'elle ne trouve plus d'aliment.

Ce bourg a été ravagé par une maladie qui s'y est manifestée à une époque où cette même maladie existait déjà dans d'autres lieux, et immédiatement après l'arrivée de quelques étrangers venant précisément de ces mêmes lieux; ces étrangers ont péri à la Carlota, après avoir éprouvé dans le cours de leur maladie des symptômes semblables à ceux qu'on avait déjà observés à Cadix; et les malheureux habitants de la Carlota qui ont contracté la maladie, ont à leur tour présenté à l'observateur attentif le même appareil, la même succession de phénomènes morbifiques. Ajoutons à tout cela qu'il n'est rien arrivé de pareil dans plusieurs villes ou villages situés au-delà de la Carlota; dont les habitants ont eu le bonheur d'échapper à toute communication avec des individus suspects. Il est impossible, après avoir tant soit peu réfléchi sur ces faits, de ne pas penser avec nous que la maladie de la Carlota y a été apportée de Cadix, de Séville, ou de tout autre endroit, qu'elle y a conservé tous ses caractères, mais surtout celui d'affection éminemment contagieuse.

A Ecija, ville assez grande et qui nous parut très-peuplée, nous eûmes occasion de recueillir des faits analogues à ceux dont il vient d'être parlé. Des étrangers fugitifs de Cadix, de Séville, etc., y avaient été reçus. Peu de temps après leur arrivée, la maladie s'y était manifestée; elle avait présenté à

Ecija les mêmes symptômes qu'à Cadix ; sa violence et ses ravages y auraient été absolument les mêmes, si, d'après les conseils d'un homme aussi estimable par les qualités du cœur que par ses lumières, M. de Soler, on n'eût mis en usage les mesures administratives, qui seules peuvent, en de semblables occasions, arrêter les progrès du mal ; c'est-à-dire, si on n'eût isolé, autant qu'il était possible, les malades et ceux qui les servaient, et si on n'eût garanti la ville contre une nouvelle introduction des miasmes contagieux.

C'est aux sages précautions de ses Magistrats, c'est au dévouement, au zèle de ses habitans, qu'Ecija doit l'avantage d'avoir été préservé des plus grands malheurs. Toutes les avenues, toutes les portes de la ville avaient été fermées, excepté deux ; et personne ne pouvait entrer ou sortir, qu'après avoir été examiné par des surveillans éclairés placés aux barrières. Les citoyens de tous les états, de toutes les professions fournissaient tour-à-tour à ce service intéressant.

Les habitants d'Utréra n'avaient éprouvé vers la fin de l'été et au commencement de l'automne, que des maladies ordinaires dans cette ville, c'est-à-dire, des fièvres bilieuses simple rémittentes, ou intermittentes du type tierce. Le régiment d'Ibernia venant de Cadix y laissa plusieurs soldats malades ; ces soldats logèrent chez les particuliers : ils communiquèrent bientôt la contagion qui se répandit assez rapidement, mais qui néanmoins y fut singulièrement moins

meurtrière qu'elle ne l'avait été partout ailleurs. C'est donc au changement de saison qu'il faut rapporter cette différence, de même que les succès de la méthode qui avait échoué jusque-là dans les autres endroits. Mais il suffit de remarquer que la maladie ne fut introduite, dans l'Utrera que très-tard, lorsqu'enfin elle avait presque entièrement cessé dans les environs.

Pendant notre séjour à Cadix, nous trouvâmes souvent l'occasion de nous instruire parfaitement de tout ce qui s'était passé à l'occasion de la maladie dans les villes qui bordent la baie, Rota, le Port Ste. Marie, Puerto-Réal Chiclana. Dans la même vue plusieurs d'entre nous se rendirent à la Isla et à la Carraque. *Je fais une mention expresse de ce dernier lieu par rapport à une circonstance très remarquable.*

La Carraque est l'arsenal de la marine royale : c'est une isle située vers le fond oriental de la baie, et qu'habitent des Officiers de marine, un certain nombre d'ouvriers constructeurs ou autres, une garnison, et une très-grande quantité de forçats : l'entrée en est toujours rigoureusement interdite à tout le monde. Il n'est pas étonnant, d'après cela, que cet endroit ait été garanti de la contagion, dans le temps même qu'elle ravageait tous les environs. Il est prouvé en effet qu'elle ne s'y manifesta qu'après l'arrivée d'une frégate qui, ayant séjourné pendant quelque temps dans la baie, eut ordre de se rendre à la Carraque pour y être désarmée.

Cette frégate avait perdu plusieurs hommes; elle avait encore à bord des malades dont la plupart périrent dès qu'ils eurent été transférés à l'Hôpital de la marine. Depuis cette époque, à ce que nous assura le Médecin en chef de la Carraque, la maladie se développa avec rapidité dans tous les points de cet établissement, et y enleva, en très-peu de temps comme partout ailleurs, environ le quart des habitans, exerçant surtout ses ravages parmi les forçats.

Le Régiment de Maria-Louisa campé entre Chiclana et Puerto-Real dans le temps où la maladie, introduite de Cadix dans ces deux endroits, y exerçait ses ravages. Les officiers supérieurs de ce corps donnèrent les ordres les plus précis pour empêcher la communication de leurs cavaliers avec les habitans des villes ou villages voisins: leurs ordres furent si ponctuellement exécutés, leur surveillance fut si exacte, que le Régiment ne fut jamais atteint par l'infection qui l'entourait de tous côtés; tandis que plusieurs autres corps de troupes placés dans des lieux peu éloignés, mais pour lesquels cette même précaution était impossible, perdirent plus du tiers, quelques-uns plus de la moitié tant des officiers que des soldats.

Des familles entières parvinrent également à échapper à la contagion, en s'isolant à temps, en se réfugiant à la campagne. Je ne rapporterai à ce sujet qu'un exemple parmi un très-grand nombre que la Commission a recueilli. On sait que la maladie se manifesta à Xères long-temps après qu'elle

eut éclaté à Cadix, Séville, et dans plusieurs autres endroits environnans. Dès que ses premières étincelles s'y firent apercevoir, une famille très-nombreuse, celle des MM. Haurie, se retira à la campagne, emportant avec elle les provisions nécessaires. Aucun des individus composant cette famille, aucun des domestiques attachés à son service ne fut atteint par la maladie, parce qu'il sobservèrent très-soigneusement de ne communiquer avec aucun étranger, pendant tout le temps qu'ils séjournèrent à la campagne, laquelle n'est cependant que très-peu distante de la ville. M. Jean-Charles Haurie, ce courageux Magistrat dont j'ai déjà parlé, et sa respectable épouse, restèrent seuls dans leur maison de la ville, et ils ne tardèrent pas à partager le sort de leurs concitoyens: ils eurent néanmoins le bonheur de n'être affectés que légèrement, la Providence ayant peut-être voulu par-là leur tenir compte de leur dévouement.

Je dois placer parmi les faits du même ordre une observation très-curieuse qui nous à été communiquée par le Docteur Capmas: elle est relative à un village des environs de Cadix dont je ne retrouve plus le nom sur notre journal de voyage.*

La maladie se manifesta seulement dans une rue de ce village. On eut aussi-tôt l'attention de barrer cette même rue des deux côtés, par une muraille dans laquelle on plaça

* Algeziras.

une grille. C'est par cette grille qu'on faisait passer les alimens et autres objets nécessaires aux habitans de la rue clôturée, ayant l'attention de ne permettre la sortie d'aucun personne ou d'aucun effet de l'intérieur. Cette précaution très sage, ayant été continuée pendant tout le temps nécessaire, réussit complètement : la maladie en effet ne dépassa par la barrière.

Je ne connais pas de preuves plus convaincantes de la nature contagieuse de la maladie, que ces divers faits relatifs aux individus qui s'en sont évidemment préservés en évitant toute communication, si sur-tout on les réunit aux autres faits bien plus nombreux qui se rapportent aux malheurs qui ont été la suite évidente d'une communication non-interrompue. J'en ai assez dit à ce sujet, pour me dispenser d'entrer dans de nouveaux détails.

On nous assura à San Lucar que la maladie ne s'y était manifestée que long-temps après qu'elle s'était déclarée à Cadix et même à Séville, qu'elle y avait été manifestement apportée du dehors, attendu que les premiers malades et les premiers morts étaient tous des étrangers venus de ces deux villes à l'époque où la contagion y regnait. San Lucar avait perdu à peu près le sixième de sa population.

C'est encore à San Lucar que la Commission fut informée que la maladie n'avait jamais paru à Scipiona, petite ville peu éloignée de la première, et située un peu plus dans

l'intérieur des terres; mais elle apprit en même tems que les habitans de Scipiona avaient eu la précaution de se séquestrer entièrement de leurs voisins, et d'interdire rigoureusement l'entrée de leur ville à tous les étrangers.

La situation des villes, celle des différens quartiers et même celle des maisons en particulier contribua également à rendre la maladie plus ou moins active dans sa propagation, et même plus ou moins meurtrière dans ses effets estimés en masse. Il est peut-être vrai de dire que la petite ville de Scipiona, ainsi que celle de Medina-Sidonia, qui ont été exemptes de la contagion, quoique enclavées dans le pays ravagé par elle, doivent cet avantage autant à leur situation, qu'aux précautions prises par leurs habitans pour éviter toute communication avec les contagiés.

Mais ce qu'il y a de bien certain, c'est que la maladie n'a jamais pu s'enraciner à Alcalá, quoiqu'elle y ait été apportée à diverses reprises. Pour bien connaître ce fait que je regarde comme infiniment précieux dans l'histoire de la maladie de l'Andalousie, il faut savoir que cette petite ville est située à deux lieues de Seville, que l'industrie de ses habitans est presque entièrement bornée à la fabrication du pain qui se consomme dans ce dernier lieu, qu'il y a par conséquent une communication journalière entre Alcalá et Séville par un nombre considérable d'individus, et qu'enfin cette communication n'a jamais été interrompue, même pendant le temps des plus grands ravages de la contagion à Séville.

On citait comme une singularité remarquable la conservation de la santé à Alcalá: on prétendait même que la maladie n'y avait point paru; cette une exagération. La Commission s'est assurée du contraire: elle a appris sur les lieux même, qu'à différentes époques des individus ont éprouvé une maladie semblable à celle qui désolait les autres villes environnantes. On y a compté jusqu'à vingt-quatre malades, dont dix-huit sont morts; et il est bien essentiel de remarquer, d'après l'assertion du Médecin de Cebourg, que tous ceux qui ont été affectés de la contagion l'ont apportée du dehors; attendu qu'elle ne s'est jamais communiquée dans Alcalá d'un individu à un autre. Quoique cet événement soit peut-être de la nature de ceux dont il est souvent impossible de fournir une explication entièrement satisfaisante, je crois néanmoins qu'il est permis de le considérer comme dépendant de causes purement locales parmi lesquelles le site particulier du lieu occupe sans contredit le premier rang.*

Ce qui s'est passé à Carmona ne vient-il pas encore à

* Le bourg d'Alcalá de los Panaderos, est bâti dans un vallon étroit, et ouvert seulement du côté du Nord et du Sud. Il est par conséquent dominé dans les deux autres points; et cependant il est lui-même très-élevé, par rapport aux plaines environnantes, ainsi qu'au niveau de la mer. Il faut observer, en outre que, lorsque les vents soufflent du Sud ou du Nord, ils en renouvellent l'atmosphère, d'autant plus aisément, qu'ils se trouvent plus resserrés dans cette gorge, que les rues sont assez spacieuses et presque toutes dans la direction même du vallon.

Ce qui s'est passé à Carmona ne vient-il pas encore à l'appui de cette opinion ? La contagion se deploya dans cette ville avec son énergie ordinaire, immédiatement après l'arrivée de quelques fugitifs : j'ai fait observer qu'elle n'est éloignée de Séville que d'environ cinq ou six lieues ; aussi ne tarda-t-elle pas à être contagiée. Mais il est bien certain que la maladie qu'éprouvèrent les habitans de Carmona, quoiqu'essentiellement la même que celle existante en même temps à Cadix, Sèville, Xérez, etc. etc. y fut singulièrement modifiée sous le rapport de la gravité des symptômes, sous celui de leur succession ou de la marche de la maladie qui, en général, y fut constamment assez régulière, sous celui enfin de ses effets destructeurs ; la mortalité ayant été à Carmona infiniment moins considérable que partout ailleurs.

Il est bien avéré que la maladie a moissonné à Séville plus du sixième de la population, en prenant un terme moyen de la perte totale : mais il est reconnu en même temps que tandis que dans les quartiers les plus propres, les mieux percés, dans ceux habités par les personnes aisées dont lest maisons sont bien aérées, il périssait environ un individu sur dix-huit ou vingt malades ; on voyait au contraire succomber le quart, le tiers, la moitié de ceux qui avaient le malheur d'habiter les quartiers sales et enfoncés, les rues étroites, les maisons peu étendues et renfermant à la fois un plus grand nombre d'individus, ou bien qu'on était obligé d'entasser dans les hopitaux.

Ceux qui ont été à portée d'observer la fièvre jaune en Amérique et qui ont eu le soin de nous faire connaître tout ce qu'il y a d'intéressant dans son histoire, nous transmettent des faits entièrement semblables!

L'on sait en effet que lorsque la maladie s'était une fois manifestée dans un lieu, la presque totalité des habitants la contractait dans un très-court espace de temps.* Cependant on a vu partout quelques individus offrir constamment une idiosyncrasie réfractaire à la contagion, quoiqu'ils s'exposassent au contact même immédiat des contagieux dans tous les temps de la maladie.

Le petit nombre de ces individus ainsi privilégiés a été observé parmi ceux qui avaient habité les Antilles, ou qui étaient nés en Andalousie, ou qui y étaient établis depuis long-temps; tandis que le contraire est arrivé à ceux qui

Il y a eu à Cadix 48,520 malades sur une population de 57,499; 7,387 ont succombé; 40,776 ont été guéris. A l'époque de la formation de tableau officiel dans lequel j'ai pris ce résultat c'est-à-dire, le 31 octobre 1800, il restait encore, 357 malades.

Il y a eu à Séville 76,488 malades sur une population de 80,588; 14,685 ont péri; 61,718 ont été guéris. Le 30 novembre 1800, il restait encore 85 malades.

Il y a eu à Xérès, sur une population d'environ 33,000 individus, plus de 30,000 malades: on en a perdu de 12 à 13,000.

étaient originaires des pays du Nord: aucun de ces derniers n'a échappé à la contagion; et la plupart ont succombé.

Une maison de commerce des plus respectables de Cadix, Hambourgeoise d'origine, était composée de quatorze individus; elle se trouva réduite en quelques jours à un seul.

Il ne me reste plus maintenant qu'à rendre compte des faits fournis par l'Inspection Anatomique. En comparant entr'eux les résultats des recherches anatomiques faites tant en Espagne qu'en Amérique, nous aurons occasion de recueillir de nouvelles preuves confirmatives de notre opinion sur l'identité parfaite de la maladie de l'Andalousie, avec celle qu'on a vu plusieurs fois ravager diverses parties de l'Amérique.

C'est à Cadix seulement qu'il a été fait quelques ouvertures de cadavres: je ne connais du moins que les résultats qui nous été transmis à cet égard par divers Professeurs de l'Ecole Médecine de cette ville, et en particulier par MM. Ameller, Sabater, et Ramos.

A l'extérieur les cadavres n'offraient rien de remarquable, si ce n'est des taches livides ou des ecchymoses noirâtres et quelquefois pourprées plus ou moins nombreuses, et placés principalement sur la partie supérieure du thorax, autour du cou, sur les extrémités tant supérieures qu'inférieures. La couleur ictérique générale ou bornée seulement à la partie supérieure du corps se conservait telle qu'on l'avait vue du-

rant la vie; mais elle avait quelquefois une nuance plus foncée en rouge et même en noir.

En examinant l'estomac, on y découvrait les traces d'une phlogose récente, qui avait été suivie d'érosion de la membrane interne de ce viscère: il était même quelquefois gangrené, principalement du côté de son orifice supérieur: mêmes lésions dans le tube intestinal, sur lequel on observait toujours des taches gangreneuses dans divers points. Les reins, le foie, la vessie, en un mot, tous les viscères abdominaux avaient une couleur livide: leur état annonçait évidemment qu'ils avaient plus ou moins participé à la phlogose, que j'ai cru pouvoir qualifier de phlogose érysipélateuse, laquelle s'était terminée par des épanchemens sanieux et purulens.

Les organes contenus dans les deux autres grandes cavités, la tête et la poitrine, se présentaient rarement dans un état d'altération essentielle. On apercevait cependant, dans certains sujets, des points noirs et gangréneux sur la surface des poumons, et dans d'autres, des taches également noirâtres ou livides sur le cerveau. Il n'est pas nécessaire de dire que chez les individus sur lesquels on observa de semblables lésions, la maladie avait été caractérisée par une plus grande intensité des symptômes.

En général, les cadavres passaient rapidement à la putréfaction la plus complète.

Enfin je me bornerai à faire remarquer que les résultats de l'inspection anatomique faite à Cadix sont en tout exactement conformes à ceux qui nous ont été transmis par les Auteurs qui ont écrit sur la fièvre jaune.

Les faits que je viens de rapporter ne sont-ils pas suffisans pour confirmer l'opinion qui a été émise relativement à la véritable origine de la maladie, au temps de son invasion, dans les principaux lieux qu'elle a parcourus, ainsi qu'au mode de sa propagation? Je ne les ai point puisés dans des bruits populaires. Ils ont été recueillis dans un moment où les hommes, encore épouvantés des scènes de malheur dont ils venaient d'être les témoins, ne pouvaient être inspirés par d'autres considérations que par le besoin de faire connaître toute la vérité. L'opinion publique est alors véritablement pure; les intérêts particuliers, les passions ne l'ont point altérée; elle est le cri du sentiment.

All the circumstances attending the first appearance of fever at Philadelphia, its rise, and progress, are so much in unison with what occurred at Cadiz and Gibraltar, that I shall here insert a short sketch of its history, from the Appendix to Dr. Currie's Work upon Bilious Fever.

“ A contagious fever, called the Yellow Fever, has
“ occurred at Philadelphia six times since the first settle-

“ ment of the city :—viz. in the years 1699, 1741, 1747,
 “ 1762, 1793, and 1797.

Mr. John Gough, in his History of the Society of Friends, says, “ that the fever which prevailed in 1699 had, for a
 “ considerable time before, been very mortal in several of
 “ the West India Islands.”

In the year 1751 it is recorded by Dr. Lind, “ that the
 “ disease was introduced by means of a trunk of wearing
 “ apparel received from Barbadoes, which had belonged to
 “ a gentleman that died of the disease in that place; and
 “ that the disease spread from the family that received the
 “ trunk into the town, and destroyed above two hundred of
 “ the inhabitants.”

Mr. Lardner, in a Letter, mentions its prevalence and mortality in 1747 and adds; “ that many, whose business
 “ and families would permit them, fled from the city.”

An account of its prevalence in 1762 was communicated by Dr. Redman to the College of Physicians. He says, “ the disease was introduced about the end of
 “ August by a mariner, who arrived from the Havannah ill
 “ of it, and took lodgings near the new market, below
 “ Pine Street. It was confined principally to the vicinity
 “ of the new market, and the streets west of it, spreading

“ gradually from one family to another, till towards the
 “ end of September.

“ In 1793 the disease made its appearance the latter end
 “ of July, in three or four families, about the same time in
 “ Water Street, very near to a wharf, where a French
 “ privateer, called the *Sans Culotte*, with a prize ship
 “ from Europe, and two small vessels from a port in
 “ Hispaniola, lay, one of which landed several sick pas-
 “ sengers immediately upon her arrival; some of whom
 “ took lodgings at Richard Denny's, within a very short
 “ distance from, and directly opposite to the wharf where
 “ they landed. The first victims were two of Denny's
 “ lodgers. For nearly two weeks the disease was confined
 “ to that neighbourhood, or to persons that had transacted
 “ business there, or that had communication with those that
 “ were sick of it; but as the circle of contagion enlarged,
 “ the disease rapidly spread through almost every part of
 “ the city, and destroyed four thousand and forty-eight
 “ persons before the 10th of November.

“ In 1797 the disease made its first appearance in the
 “ latter end of July, in the neighbourhood of Mr. Russel's
 “ wharf, a few paces below Pine Street, where three vessels
 “ lay, one of which had been in port all summer, one
 “ called the *Iris* arrived from Oporto with wine, and took
 “ her station at the wharf on the 21st of July, and the
 “ other, called the *Arethusa*, from the Havannah, on the

“ 24th: the last-mentioned vessel had been employed in
 “ transporting slaves from Jamaica to the Havannah the
 “ latter end of June. The carpenter and one of the marines
 “ died with symptoms of the Yellow Fever on board during
 “ her voyage, according to the deposition of Mr. Kingston,
 “ and a Letter from Mr. Fitch, two respectable merchants
 “ who were passengers on board of the Arethusa to the Ha-
 “ vannah. The pilot, James Mulford, was attacked with
 “ fever on board the Arethusa in the night of the 23d, (being
 “ the last of her Quarantine) near the Marine Hospital, and
 “ was taken to his lodgings immediately after his arrival in
 “ her at the city. On the 29th of July the mate and cook
 “ of the brig Iris, the vessel from Oporto, which lay in
 “ contact with the Arethusa, were attacked with fever:
 “ the case of the cook, who vomited matter black as ink,
 “ and died on the fifth day, was communicated to the Col-
 “ lege of Physicians by Dr. Stewart, who attended him:
 “ the mate’s fever terminated favourably on the third day.
 “ Three more of the same crew were attacked three days
 “ after the mate and cook, and all recovered, though one of
 “ them became very yellow. G. Latimer, Esq. who resided
 “ in Pine Street Wharf, was attacked on the 29th; his ser-
 “ vant man and maid a few days after. Four other persons,
 “ who transacted business in stores near the wharf, were
 “ attacked on the 1st or 2d of August; two of them died on
 “ the 5th, after being affected with Black Vomit. Captain
 “ M’Gowan, who conducted the Arethusa down to the Fort
 “ on the 21st of August, was attacked with the fever five days

“ after. John Larcham, who worked on board the Iris, and
 “ lived near the wharf, was attacked on the 3d of August;
 “ and in the course of the week several persons were taken
 “ ill in the same neighbourhood.

“ The weather, which had been warm and dry part of
 “ June and July, was at this time cool and pleasant; and
 “ the air was rendered exceedingly pure by torrents of rain
 “ which fell the latter end of July and beginning of August:
 “ the streets and wharfs were all remarkably clean, and
 “ every other part of the city was uncommonly healthy.
 “ Notwithstanding this the disease made gradual progress,
 “ and in the course of three months there died one thou-
 “ sand two hundred and thirty-two persons.

In addition to what Dr. Currie has said respecting its rise and progress, I think it of consequence to mention, that in the year 1793 all the prisoners in the Jail of Philadelphia, amounting to more than two hundred: the pensioners in the Alms-houses, and the patients in the Pennsylvania Hospital, as well as all the families that remained in the city, and confined themselves to their own houses, escaped the disease, owing to the precaution of preventing the admission of any sick or suspicious person, as well as every infected article, into those places.

And to shew the opinion of the College of Physicians of Philadelphia respecting this disease, I shall here insert

an Extract from their Memorial to the Senate and House of Representatives, pointing out the necessity of more efficient Quarantine regulations.

Extract from the Memorial of the College of Physicians.

“ Memorialists are of opinion, that the disease which produced so much mortality and distress in the year 1793, was imported into this city from the West Indies, and they are confirmed in this sentiment by the circumstances attending the disease of this year, which they consider of the same nature, and derived from the same source.

“ Some of their most important reasons for this opinion are as follow :—

“ The disease in question is essentially different from the fevers that occur in this climate, and which originate from domestic causes.

“ This difference particularly regards the general progress of the symptoms, and the mortality, as is evident upon a comparison of its history with that of the ordinary diseases of the city.

“ A disease, which resembles the fever of 1793, and of this year, in many important points, has long been known in the West Indies, and those parts of America situated

“ between the Tropics; and in seven or eight different in-
 “ stances, in which a similar disease has occurred in the
 “ United States in the course of this century, there is good
 “ reason to believe that it was derived from those countries.

“ In most of the instances, the original history of the dis-
 “ ease contains the information that it was imported. In
 “ some cases the infection can be traced to the imported
 “ clothing of persons who died in the West Indies.

“ The circumstances attending the fever of this year are
 “ extremely in point, and the narrative which accompanies
 “ this will, we trust, satisfy you that it was imported.

“ The disease in question commenced invariably in our
 “ sea ports, while the inland towns, equally exposed to the
 “ ordinary causes of fever, escaped; and in the two last
 “ instances of its occurrence, the suburbs, and the country
 “ adjacent, were more healthy than usual at the same sea-
 “ son; and at the *commencement of the disease* all the
 “ ports of the city, excepting the small spaces to which it
 “ was confined, were remarkably healthy.

“ The difference of sentiment among Physicians, now so
 “ much regretted, resembles that which almost always takes
 “ place when the plague is introduced into any of the
 “ civilized parts of Europe, where it is not well known; the
 “ identity of the disease, its origin, and its contagious na-

“ ture, have been often the subject of controversy.—Some
 “ physicians have considered it as of domestic origin, but
 “ proper health laws, strongly enforced, have latterly pro-
 “ tected the commercial parts of Europe from its ravages.”

In the short history which I have given of this disease, it is ascertained that it had never appeared at Gibraltar before, at least not during one hundred years that that garrison had been in possession of the British: that Cadiz had been free from it between the year 1764 and 1800, and that it had not existed at Philadelphia for thirty years before.

All these circumstances are very much in favour of what I wish to establish, viz. that it is not indigenous in those places, nor in the West Indies; but that it has, at different times, been carried to the West India Islands, and from thence imported to Europe and the settlements in America.

I shall here quote history for what I advance respecting its existence in the West Indies, and shall afterwards bring forward evidence (in support of that authority) to prove, that the troops in the West Indies, before the year 1793, enjoyed, in many instances, as high a degree of health as in any part of Europe; and having had permission of his Royal Highness the Commander in Chief, to examine the Muster Rolls of regiments stationed there before and after the appearance of the fever in the year 1793, I shall give a

statement of the mortality in different corps before and after that period.

Dr. Moseley, page 47, says, " Notwithstanding that degree of Causus (which we call Yellow Fever) appears from the nature of the disease to be indigenous to the Torrid Zone, there was no notice taken of it in the West Indies, until nearly two centuries had elapsed from their discovery !"

The first account we have of this fever being a new or imported disease in the West Indies, is from Ligon's History of Barbadoes; in which he mentions, that early in September, 1647, the inhabitants of that island were grievously visited with the plague, or *as killing a disease*; and that before the expiration of a month after his arrival, the living were hardly able to bury the dead.

It is also mentioned in a publication by Mr. Webster, as having prevailed about the same time at the Island of St. Kitts, and in the Plantations in America.

After the year 1647 no mention is made of this disease until 1686, when it was said to have been imported to Martinique, in a ship named the *Oriflamme*, from Siam, and was then called *La Maladie de Siam*.

Monsieur Desportes, who practised physic sixteen years

in St. Domingo, says this disease got its name from its being first taken notice of at Martinique, at a time when a large fleet had arrived there from Siam, "*et dont l'equipage, pendant son sejour dans cette colonie, fut affligé d'une fièvre Maligne ou Pestilentielle qui fit perir un grand nombre de Matelôts.*"

The generality of the French writers say, that it was brought directly from Siam in a merchant ship, and communicated to the people of Martinique, whence the contagion was carried to St. Domingo; but that sailors were the only people attacked by it: therefore it was also called *La Fievre Matelôte*.

Captain Phillips gives an account of the disease having prevailed at Barbadoes in the year 1694.

Mr. Hughes mentions, on the authority of Dr. Gamble, that it was very fatal in 1695, and that it was then called the *New Distemper*, or *Kendal's Fever*.

* Monsieur Desportes, although he had doubts as to its importation, was aware of its not being a constant resident in St. Domingo, but supposed that it returned periodically, accompanied by some peculiarity in the atmosphere.—His words are "*Les Constitutions très sèche et conséquemment les fièvres Jaunes très Malignes qui les accompagnent toujours; reparaissent à peu près apres un période de douze a quinze ans.*"—!!

Dr. De La Fosse, who practised physic ten years in St. Domingo, in his Treatise upon the Diseases of that Island, makes no mention of its having appeared there between the years 1775 and 1785.

Dr. Chisholm asserts, that at Grenada, from the year 1763, when that island was ceded to Great Britain, no Contagious Fever, nor any Epidemic, of the character of the Malignant Pestilential Fever, appeared there until 1793; and Dr. Gilpin, Deputy Inspector of Hospitals, who resided sixteen years at Grenada before 1793, confirms his assertion during that period.

Dr. Hillary mentions a contagious fever having prevailed epidemically once at Antigua, and twice at Barbadoes.

The first Epidemic Fever at Jamaica is mentioned by Dr. Trapham, in a work upon the health of that island in 1679. He says, page 81, " I know it hath been a commonly
" received opinion, that, about eight years since, when the
" victorious fleet returned from the signal Panama expedition, that then they brought with them an high, if not
" pestilential fever, of which many died throughout the
" country: but this being a *foreign distemper*, brought
" *from abroad*, the causes of which I could not so well
" judge of, I am not as yet forced from my opinion thereby,
" but conclude Jamaica more happy than to be annoyed
" therewith, directly and originally."

Dr. Robertson, in his Synopsis observes, that it is mentioned by Dr. Lind, “ that at Pensacola the excessive heat
 “ of the weather had sometimes produced a mortal sickness, similar to that which, in the West Indies, goes by
 “ the name of Yellow Fever; but that no such disease prevailed there or in the West Indies in the course of seven
 “ years that he was cruizing off those stations, between the
 “ years 1766 and 1774.

This disease never appeared at Lisbon but once, viz. in the year 1723, when Black Vomitings were observed to be the most prevailing and fatal symptom. Dr. Kennedy, Physician to the Factory there, made a report to the British Consul, for the information of government, in which he mentions, that it was very contagious in the lower parts of the city, going generally through a family, and very few families escaping it, especially in the *close, narrow, ill-ventilated streets*; and from the gentlemen in the country escaping it, and the families in the higher parts of the city suffering but little from it, he concludes that it is contagious only among those who are predisposed to it, by living in a close noisome air.

P. du Testre, in mentioning this disease, calls it *La Peste jusqu' alors inconnu dans les Isles*.

Don Ulloa affirms it to have been unknown at Carthagená and Porto Bello anterior to the year 1729.

Dr. Lafuente (a Spanish author) mentions the same disease to have existed at Malaga in the year 1741.

Dr. Lempriere, vol. ii. page 31, says, " That this disease
 " has been more frequent and fatal within the last five or
 " six years than at any former period, is a fact that cannot
 " be denied; but that it *has often appeared before* between
 " the Tropics, and does generally continue with more
 " or less prevalence in these climates is, put beyond contradiction, by the abundant testimony of the many authors who have seen it and treated of it *at different*
 " *times.*"

This collection of evidence, I take it for granted, is sufficient authority for asserting, that the disease, for centuries past, has been only an occasional visitor in the West Indies.

I shall next bring forward proofs of the comparative health of the West India climate for a series of years, during the absence of this scourge of the human race, particularly for some time before its importation to the Island of Grenada in the year 1793.

Dr. Davidson, of Martinique, in a letter to Dr. Mease, of Philadelphia, says, " It is possible in the West Indies, to
 " preserve a degree of health unknown in the variable climates of North America and Europe—and accordingly we
 " find in the healthy islands of St. Kitt's, St. Vincent, and

“ Barbadoes, soldiers arrived from Europe have remained
 “ there for years, and enjoyed a degree of health unknown
 “ to any other part of the world, notwithstanding their
 “ debaucheries!!”

I have authority from Mr. Weir, Director-General of
 Army Hospitals, to state, “ That he arrived in Jamaica in
 “ the year 1785, from which time until 1792 only one
 “ officer died out of four regiments quartered in that
 “ island—that the troops were in general healthy, and
 “ although fevers were frequent, they were not fatal; the
 “ 10th and 19th Regiments having lost only one man each
 “ in twelve months—that he never knew any fever of a bad
 “ type prevail there before 1793—that although bad cases
 “ of what was called Yellow Fever occasionally occurred,
 “ they were solitary instances, without any suspicion of
 “ contagion, and confined chiefly to persons who com-
 “ mitted irregularities and exposed themselves to the sun;
 “ and that during a residence of seven years in that island
 “ he did not meet with more than four cases of Black Vo-
 “ miting until 1793, when an uncommonly destructive
 “ fever made its appearance, and committed most dreadful
 “ devastation among the troops, great numbers of them
 “ being carried off with the fatal symptom of Black Vo-
 “ miting.”

*Extract of a Letter from Dr. Gordon, (late a Member
of the Medical Board.)*

“ 20th January, 1815.

“ DEAR SIR,

“ In compliance with your request, I beg leave
“ to state, that I served in the West Indies before the
“ Revolutionary war, during the years 1789, 90, 91, 92;
“ and was stationed at Barbadoes, Dominica, and Jamaica.
“ The troops I served with enjoyed a high degree of health,
“ especially those corps in which a good system of interior
“ economy was established and preserved; the mortality
“ was very small; the principal diseases were Remitting
“ and Intermitting Fevers, Dysentery, and Affections of
“ the Liver; the latter sometimes occurring as the primary
“ disease, but more frequently following attacks of the
“ other diseases. *I never saw any fever, during that*
“ *time, possessing the peculiar character, or having the*
“ *particular symptoms attending that disease which has*
“ *been styled Yellow Fever, the fatal termination of which*
“ *is generally attended by Black Vomiting!!*

“ I served in Jamaica and St. Domingo during the years
“ 1793, 94, 95, 96, 97, 98. During the year 1793 the
“ troops continued to enjoy as good health as European
“ soldiers can ever be expected to do within the Tropics,

“ nor did any case of *Yellow Fever* occur among the troops

“ I served with.

“ Indeed, for the first six months we were at St. Domingo, there was no death by disease. The first time I saw the *Yellow Fever* was at Port au Prince, St. Domingo, soon after the British troops took possession of that place. After that period, however, it continued to rage, and occasioned great mortality.

“ I shall not intrude any opinions of my own upon the subject of this singular disease.

“ I remain, &c.

“ THEODORE GORDON.”

Extract of a Letter from Dr. Franklin, (at present a Member of the Medical Board.)

“ London, 11th February, 1815.

“ MY DEAR SIR,

“ In reply to your questions, I beg leave to acquaint you, that I arrived at Dominica (being at that time Surgeon to the 15th Regiment) in January 1791, and was stationed at Morne Bruce, which was the head quarters of that regiment during the years 1791, 1792, and 1793. During the two former years, and for

“ the first six months of the year 1793, the regiment was
 “ tolerably healthy (for a corps recently arrived from Eu-
 “ rope); the most prevalent disease was Dysentery, some
 “ cases of Intermittent and Remittent Fevers occurred, but
 “ the symptoms were in general mild.

“ Between *July and November*, 1793, more cases of
 “ Fever occurred, both among the officers and soldiers,
 “ than in either of the former years; the disease also
 “ assumed a more aggravated form. No officer however
 “ died; the exact number of deaths among the soldiers I
 “ am unable to state, but certainly a larger proportion
 “ died than in the former years. *I then first observed*
 “ *the black vomit*, but it occurred less frequently than
 “ in the following year, among the troops recently arrived
 “ from Europe; I believe the sickness and mortality among
 “ the inhabitants of Dominica to have been unusually great
 “ in 1793, particularly among persons recently arrived from
 “ Europe, and among the French emigrants from Marti-
 “ nique and Guadaloupe.

“ What I have stated above is entirely from memory, as
 “ I have not been able to find among my papers any notes
 “ or memoranda relative to the diseases of the period.

“ I remain, dear Sir,

“ Your's very truly,

“ W. FRANKLIN.”

The following Extract of a Letter from Dr. Bishopp, formerly Surgeon to the 35th Regiment, is a strong proof not only of Contagion, but of two distinct diseases.

“ Kinsale, 4th January, 1815.

“ At the conclusion of the American war I was at
 “ Charles Town, when the troops there suffered from a
 “ most malignant and rapidly fatal contagious fever—from
 “ Carolina I went to the island of St. Lucia; before my
 “ arrival there, I was strongly prepossessed with the idea of
 “ the fever of the West Indies being contagious; but I very
 “ soon changed my opinion, and did not hesitate to place a
 “ patient in hospital with fever, next to one with ulcer—
 “ the prevailing disease was the Bilious Remittent, no
 “ Black Vomit, &c. I used blood-letting with great suc-
 “ cess!—Upon my arrival at Guadaloupe in 1795, I ima-
 “ gined the fever there to be the same as that which I had
 “ seen at a former period in the West Indies, but I had
 “ soon occasion to think otherwise—it was violently conta-
 “ gious, and very few escaped it; even the negroes, who
 “ have been considered very unsusceptible of fever, were
 “ attacked with it in common with the orderly men in
 “ hospital! In consequence of the sudden and great pro-
 “ stration of strength in the fever of Guadaloupe, I never
 “ tried blood-letting; most of those whom I had time to
 “ impregnate with mereury recovered!!

“ Your's very truly,

“ ED. BISHOPP.”

Dr. Blane, in his *Observations upon the Diseases of Seamen*, mentions, page 1, "That when he arrived in the
 " Caribbee Islands in the beginning of the year 1780, he
 " found there sixteen ships of the line, most of which had
 " been upwards of twelve months in the climate; the
 " squadron was then extremely healthy, and in several of
 " the ships there was not a man unfit for duty, although
 " they had been subject to sickness, particularly to Dys-
 " sentery, soon after their arrival in that climate:"—and at
 page 54, he says, "to whatever cause it was owing, the
 " fleet we found in the West Indies was healthier than that
 " which had just come from England."

The seamen, from the examination of the sick returns, appear to have suffered much more from Scurvy and Dysentery than from Fever; which last disease appears to have been of a very mild nature, twenty-eight sail of the line having lost only thirteen men out of eight hundred, and six attacked by it in the month of March, 1782.

Dr. Pinckard, in his *Notes upon the West Indies*, mentions the appearance of the disease at Berbice, where it was new, not only to himself, but to the oldest practitioners in that settlement, who, as he observes in page 22, vol. iii.
 " with candour admitted, that the disease which they saw in
 " the military hospitals differed from the fever which they
 " commonly treated; and one of them, who had been as
 " many as twelve years in busy employment in the colony,

“ was even brought to acknowledge, that in the whole
 “ course of his practice he had met with only *five cases* of
 “ what he now termed GENUINE YELLOW FEVER: for
 “ it was observed, he says, that while we were contending
 “ with the Continued Fever of Europeans, but lately
 “ arrived, they were prescribing for the Remittent Fever of
 “ the Colonists.”—This disease made its appearance at the
 same time among the troops at Demerara, where, p. 51, he
 says, “ The number of the sick, and the malignity of the
 “ disease, have rapidly increased; and it seems probable
 “ that very few, if any, of the troops will wholly escape its
 “ visitation. Of the garrison, from ten to fifteen have been
 “ received into the hospital, in fevers, within twenty-four
 “ hours, for several days in succession. I have visited the
 “ Fort, in order to ascertain whether any cause existed there,
 “ to which this rapid increase of sickness could be attri-
 “ buted; but I met with nothing that could explain it!!”

In page 79, (in consequence of rumours of the mal-prac-
 tices of the English Physicians, he called in the aid of the
 Colonial Doctors.) “ Several of the gentlemen (he says) have
 “ accordingly been good enough to favour us with occasional
 “ attendance; but I find that here, as at Berbice, *the dis-*
 “ *ease* is treated in the same manner as the *common Remit-*
 “ *tent* of the country;”—and having selected four cases, and
 requested Dr. ——— to take them under his care, he says, at
 page 80, “ the bark was prescribed for them all, and most
 “ liberally administered; but in vain, for not one of them

“ recovered! The doctor was greatly chagrined and disappointed at the unhappy result of those cases, and declaring that there was a “ *something different*” in the fever which prevailed among the troops from that which usually attacked the Colonists, he wished me better success, and withdrew his attendance.”

Page 125 he says, “ If the fever should assume a *Remittent* or *Intermittent course*, we shall know how to oppose ourselves to its progress, and prevent it from repeating the devastation it has committed in its *continued form*.”

I have been thus full in my Extract from Dr. Pinckard, knowing the high character that he holds in the profession, and the influence that his opinion has had in the grand question of contagion. I am aware that the term Yellow Fever, which was given to this disease upon its first appearance among the troops in 1793 and 1794, and the seasoning which was thought of, was the reason of its not being suspected of being contagious even by the oldest practitioner in the West Indies.

But in what other way is this sudden appearance, and general prevalence of the disease, to be accounted for? From ten to fifteen men in the same barrack taken ill every twenty-four hours of a disease, for the production of which no cause could be traced in the Fort; which was new to the oldest practitioners in that country, and who, long before

that time, had opportunities of seeing *la fièvre matelotte*, if it had existed?

It does not appear to have existed either at Demerara or Berbice, until after the capture of those settlements by the British; when, from the communication being opened with the other islands, the contagion, as might have been expected, was introduced; and after this disease had run through the garrison, which, at the rate of from ten to fifteen per day, it must have done in a very short time; if some cases of Remitting or Intermitting fever appeared, it is very natural to suppose, from the generally prevailing opinion of non-contagion in the Yellow Fever before 1793, (when the disease in question did not exist), that a European Physician, newly arrived in this climate, might have been deceived by the authors who had published upon Yellow Fever; the generality of them under this name having treated of the Remittent fever, occasioned by Marsh Miasmata, or the Sporadic Bilious Fever, the consequence of excess in drinking, and exposure to the sun: neither of which diseases, as I mentioned before, are contagious, and persons are liable to repeated attacks of them.

Mr. Vance (Surgeon to the Forces, has favoured me with a Copy of a Report made by him to Sir James Fellowes, Inspector of Hospitals, of which the following is an Extract.

“ Cadiz, November 2, 1813.

SIR,

“ That the Epidemic, which has lately prevailed in Cadiz,
 “ is the same I have witnessed in the West Indies, Cartha-
 “ gena, and other places, I have not the least doubt; that
 “ it has been imported and kept up here by specific con-
 “ tagion, is to me equally obvious; and although its cha-
 “ racter and symptoms have frequently been laid before the
 “ public, by Medical Practitioners of more knowledge and
 “ experience than myself, still I feel it a duty incumbent
 “ upon me, to make such observations to you as I have
 “ been enabled to collect, during my attendance in the
 “ Fever Wards of the Hospicio, which you have done me
 “ the honor to confide to my care, since my arrival in this
 “ place.

“ That the disease was imported, and not produced by
 “ Marsh Effluvia, must be evident, from the very circum-
 “ stance of the towns of Chiclana, Isla, Port Royal, and
 “ Port St. Mary's, being perfectly free from the disease,
 “ although situated round the Salt Marsh, and several miles
 “ nearer to it than Cadiz is. That *in this country* it is
 “ contagious must also appear obvious, from its attacking

“ whole families one after the other *who had not passed it*
 “ *before*): from continuing to receive our worst cases from
 “ the guard in the Spanish church, where the dead from
 “ the Spanish hospitals are deposited previous to interment:
 “ from our serjeants and orderlies taking the disease in the
 “ hospital, two of whom have died; and from the three
 “ Medical Gentlemen ordered to assist me, all having
 “ caught the disease in a most serious manner.”

[The symptoms and progress of this disease, as I have reported to Sir James Fellowes, have differed so very little from what I have already mentioned to you in my report from Carthagená, that it will be unnecessary to insert them here;]—vide page 62.

“ In many cases deafness has occurred, and suppuration
 “ of the parotid glands, with deep rooted abscesses in
 “ various parts of the extremities have taken place; all of
 “ which have proved favourable symptoms. Towards the
 “ crisis of the disease, in all those cases that have terminated favourably, an extraordinary slowness of pulse
 “ has generally taken place, seldom striking oftener than
 “ fifty times in a minute, and frequently not so much.

“ Having thus far given an account of the disease, as
 “ it has made its appearance here, I beg leave to make
 “ the following observations on the mode of treatment.
 “ Emetics, in every instance, proved hurtful; not only by

“ increasing the irritability of stomach, but by accelerating
 “ the flow of blood to the head, without in any way
 “ relieving the patient.

“ From the turgidity of the vessels of the eyes, the
 “ flushed face, excessive pain in the head, and, in some
 “ instances, the lethargic appearance of the patient, which
 “ would lead one to suppose an evident determination of
 “ blood to the head; I was induced to bleed five men
 “ labouring under those symptoms; the quantity taken
 “ away from them was from twelve to sixteen ounces.
 “ Three of them were slightly relieved from the head-ach;
 “ two received no benefit, and died with the usual symp-
 “ toms, and the others were left in such a state of debility,
 “ and recovered so very slowly, that I was deterred from
 “ again using the lancet. Mercury has proved of no use,
 “ except as a purgative, and has not acted even as a pre-
 “ ventative; as three or four men, who were strongly under
 “ the influence of it for the cure of other diseases, were
 “ severally attacked with the fever, one of whom died; and
 “ several men, who have recovered from the disease, have
 “ had their mouths affected, when they had not taken mer-
 “ cury beyond the first dose as a purgative. Antimonials,
 “ even in the mildest form, could seldom be given with
 “ safety.

“ The mode of treatment that has proved most suc-
 “ cessful, and, indeed, has generally succeeded, when

“ the patient was seen soon after being attacked, I shall
 “ now take the liberty to describe—On first coming to the
 “ Hospital, ten grains of calomel, rubbed up with a little
 “ sugar, was instantly given, following it up with an ounce
 “ of castor oil; and a purging injection was given every
 “ hour, till the bowels were freely opened. If the oil was
 “ rejected, jalap or rhubarb was given soon afterwards;
 “ and if this did not produce purging in a few hours, the
 “ calomel was repeated, and followed up with a solution of
 “ magnes: vitriolat: When the bowels became freely open in
 “ the first ten or twelve hours after the attack of the disease,
 “ it generally terminated well to the patient; and a dia-
 “ phoresis was encouraged by the application of warm
 “ cataplasms of bran, mustard, vinegar, and water, applied
 “ to the feet, and renewed every three hours, giving warm
 “ cordial and mucilaginous drink to the patient: by this
 “ mode a remission generally took place before the end of
 “ the second day, when the thirst and pain of the head
 “ were considerably abated, the tongue became moist, and
 “ the pulse gradually became slower; when little more
 “ became necessary than a cup of beef tea occasionally,
 “ and a little saline medicine, taking care to keep the
 “ bowels perfectly open by an enema or two every day.

“ In some cases the infusion of bark, with or without
 “ Acid: Sulph: proved serviceable after the third day—and
 “ by the fifth day, when the disease has terminated in this
 “ manner, the patient has generally been able to move about.

“ When the bowels have been freely opened, and the
 “ irritability of stomach still continued with acid eructations,
 “ a draught, consisting of Carbonat: Magnes:— Di : Tinct:
 “ Opii: gtts: XL:—Spt: Lavend: Comp: gtts: xxx:—Aq:
 “ Ment: $\text{z i\ss}$: produced very frequently the happiest ef-
 “ fects, tranquilizing the stomach, and enabling the patients
 “ to take both medicines and nourishment with ease and
 “ satisfaction to themselves.—Sinapisms of mustard and
 “ vinegar applied to the epigastric region, have also proved
 “ serviceable in similar cases.

“ By this mode the disease might be said, in some in-
 “ stances, to have been cured before it was formed; but
 “ when the patient did not report himself, or was not seen
 “ till the second day of the disease, so favorable an issue
 “ could not be expected; much greater irritability of
 “ stomach always took place, the bowels were more diffi-
 “ cult to open, and indeed the disease became then so
 “ completely formed, that it generally ran its course; by
 “ the third day petechiæ often made their appearance, and
 “ blood was discharged from the nose, mouth, and ears.—
 “ In all those cases, Bark, Wine, Æther, Acid: Sulph:
 “ Blisters, &c. &c. were had recourse to, and sometimes
 “ proved useful, as we had several instances of recovery,
 “ from those symptoms, although their convalescence was
 “ protracted to a very long period.

“ I am, dear Sir,

“ Very sincerely your's,

“ R. Y. VANCE.”

It appears from the highest authority, viz. Mr. Weir, Director-General of Army Hospitals; Dr. Franklin, one of the Members of the Medical Board, and Dr. Theodore Gordon, formerly a Member of the same Board, and from which he retired (to the great and general regret of the medical officers of the army) on account of ill health; that for several years before 1793, there was no instance of that species of disease prevailing epidemically in the West Indies, which is characterised by Black Vomiting; that regiments had been stationed there for years together, without undergoing that seasoning which has been looked upon as necessary for the European constitution, and that although the Bilious Remitting Fever has always existed in the neighbourhood of marshes or swampy grounds, that other situations were altogether exempt from it.

And, on the contrary, that after the appearance of fever in Grenada in 1793, every station for troops, however healthy before, suffered severely from the contagion, after its introduction into the different islands. And even the inhabitants suffered severely upon the first appearance of this disease, although with them, from being acclimatés, it in general appeared in so much more mild a form, as rarely to be characterised as the same disease, and as in all mild cases of it, would not have been suspected to be so, had it not at the time prevailed epidemically.

As it has been generally asserted, that the disease originated in consequence of some morbid change in the at-

mosphere, I think it necessary to call my reader's attention to the periods at which it made its appearance, not only in the different West India islands, but in different parts of the world.

It first shewed itself in Grenada in the month of *February*, 1793, at a time when the Bilious Remittent Fever does not prevail; at which period also, and for a considerable time afterwards, all the other islands continued healthy. It did not reach the island of Dominica until between the months of July and November; Barbadoes kept clear of it until the beginning of 1794, at which time we found all the French islands healthy. St. Domingo did not suffer from it until late in 1794, and then, in consequence of the introduction of the contagion by a detachment of troops from the island of Guadaloupe. Philadelphia was not visited by it until the month of July, 1793, nor Cadiz and Malaga until the year 1800. I may also add, that it has never appeared in Europe before the end of July, and has always been destroyed by cold towards the end of December.

Dr. John Hunter (Diseases of the Army at Jamaica) mentions, that in the years 1781 and 1782 there was a striking proof of the salubrity of the air at Fort Augusta. A Corps of Royal Americans, under the command of Lord Charles Montague, were quartered there upwards of nine months;

in which time they lost only two men, and their sick seldom amounted to twenty.

And in 1782 and 1783, (he says) the 19th and 38th Regiments, stationed at Stoney Hill, enjoyed a degree of health little, if at all, inferior to what might have been expected in any part of England; they seldom had more than twenty sick in hospital, and the proportion of deaths was altogether inconsiderable!*

The 9th Regiment, quartered at Brimstone Hill, in the island of St. Kitt's, in five years, viz. between 1787 and 1793, lost only seventeen men; the same regiment, when attacked by the disease in 1794, lost one hundred and eighteen men.

The 15th Regiment, to which Dr. Franklin was Surgeon, stationed in the island of Dominica, I find, from the examination of the muster-rolls, lost

* During twenty months that the 54th Regiment, mentioned by Mr. Redmond, page 72, was quartered at this last-mentioned post, it lost only fifteen men; but in 1808, when the contagion was introduced into that corps, it lost, in the month of October, one hundred and twenty-seven, and in November eighty-four men, making the mortality, in two months, amount to two hundred and eleven.

between June 1790 and June 1791, 17 }
 June 1791 — June 1792, 20 } 50 men in 3 years.
 June 1792 — June 1793, 13 }
 and from June 1793 to June 1794, 93 — in one year.

The 13th Regiment, to which Dr. Theodore Gordon was Surgeon, in Jamaica,

lost in the year 1790, 1 }
 1791, 10 } 42 men in four years.
 1792, 22 }
 1793, 9 }

and in 1794, 136 — in one year.

The 66th Regiment, quartered five years in the Island of St. Vincent, viz. from the year 1786 to 1791, lost only thirty men, when it embarked for the Mediterranean, and after remaining there four years, returned to the Island of St. Domingo in 1795, where, in six months, it lost,

Officers,	Serjeants,	Corporals,	Drummers,	Privates,
9	20	19	9	202

It is necessary to remark, that this corps had undergone a very great change in the Mediterranean, having drafted a great proportion of the old soldiers, and received drafts from young regiments.

The 69th Regiment, which had been some years in the Mediterranean, embarked at Gibraltar for St. Domingo,

where it arrived in December, 1795, and, in six months, lost,

Officers,	Serjeants,	Corporals,	Privates,
17	27	26	243

I might mention many other regiments which arrived in the West Indies after 1793, among which were the 82d, 103d, and 31st, and after remaining there a very short time, returned to Europe complete skeletons, not having a sufficient number of men left, to complete their establishment of non-commissioned officers.

As it has been supposed by many that this disease has been much aggravated by the change which the constitutions of the soldiers underwent during the fatigues of the campaign, I shall mention a contradiction to that opinion by two remarkable instances of regiments landing during the prevalence of disease, and being quartered in barracks without marching a mile.

The 2d, or Queen's Regiment, landed from England at Fort Royal, Martinique, in February or March, 1805, and in the month of April lost fifty-five men, and in May forty-two—ninety-seven men in two months.

The 35th Regiment landed at Basse Terre, Guadaloupe, on the 12th of May, 1795, and by the 31st of the same month had lost twenty-eight men, and by the 30th of June

one hundred and eight.—These two regiments, as I mentioned before, had landed from the transports, and marched quietly into barracks, in which the contagious fever had prevailed; but from its not having been suspected to possess this noxious power, and the disease being only considered a seasoning, no precautions were used against it.

As this disease has been mentioned by authors as prevailing only in the autumnal months, I have noted the dates of those regiments being attacked; and to prove that it is not like Marsh Fevers, confined to any particular season, I shall quote the following passage from Dr. Gillespie (*On Diseases in the Leeward Islands*), page 55—
*“ During the three last months of 1795 and the three
 “ first of 1796, whilst the garrisons of St. Pierre and
 “ Fort Royal were still more fatally preyed on by the
 “ Malignant Epidemic, which I have described as affect-
 “ ing the seamen; the prisoners of war, crowded half naked
 “ into badly aired transports, remained free from any fatal
 “ epidemic: this exemption,” he says, “ may be attributed
 “ to their being in general people of Colour.”*

Having said this much with the view of proving that the disease in question is contagious—that although it has made its appearance at different times in the West Indies, it is not constantly resident in the islands—that its powers of contagion and destruction are increased by heat, and destroyed by cold—and, lastly, that it attacks the human

frame but once; and having done this, I trust, to the conviction of every unprejudiced mind, I must consider it established, that it is a disease perfectly distinct from that species of fever produced by Marsh Miasmata.

Dr. Bancroft, however, not only doubts, but denies, in every instance, the importation of this disease into different countries, although the origin and progress of the fever are so distinctly related by men who had no interest in making such assertions—who were not engaged in any medical controversy—and who only recorded the circumstance as a new and uncommon occurrence. He is convinced in his own mind that whenever this fever has prevailed epidemically in America, Europe, or the West Indies, it has been occasioned by a combination of circumstances more than usually favorable to the production of Marsh Miasmata. And so determined is he upon this point, that he attempts to trace its origin at Cadiz and Gibraltar to the same causes—two places which have been more than once visited by this dreadful malady; although Marsh Miasmata and their consequences,* Remitting and Intermitting Fevers, are totally unknown to either; Cadiz being built upon a rock at the extremity of a very narrow neck of land, a sandy

* The Bilious Continued Fever at Gibraltar has lately been named Bilious Remittent, (to distinguish it from the Epidemic or Bulam Fever) but improperly.

peninsula running several miles into the sea, and reckoned one of the healthiest spots in Europe, continuing free from disease while the towns within a few miles of it—the Isla de Leon—Port St. Mary's, and Chiclana, have their regular autumnal attacks of Intermitting Fevers. A most convincing proof of this difference between the Epidemic Fever, and that originating from Marsh Miasmata, occurred at Cadiz and its neighbourhood in the years 1813 and 1814, as mentioned in Mr. Vance's letter, p. 123.

When the Epidemic made its appearance at Cadiz, Quarantine regulations were immediately had recourse to by order of government, all communication was cut off between the neighbouring towns, by which its spreading was effectually prevented. When, if there had been any circumstances in the state of the atmosphere, or any causes tending to increase the powers of Marsh Miasmata, it is natural to suppose that the same would have extended across the Bay of Cadiz to Port St. Mary's, or along the Isthmus to the Isla de Leon, or that the same causes would have produced disease at St. Lucar, Seville, or Malaga; all of which places, however, remained healthy in 1813, although they suffered in 1800, which Dr. Bancroft in his note, page 447, attributes to their situation:—he says,

“ Puerta-Real, Puerta Santa-Maria, Rota, and the town
“ of Isla (which last is surrounded by salt pans), adjoin

“ either the harbour, or the bay, of Cadiz, and they all
 “ partook of the epidemic, *as might be expected*, from
 “ their *low* situations, and other circumstances.”

How will Dr. Bancroft account for those places not having partaken of the Epidemic in 1813 and 1814? their situations continued the same, their marshes were still in existence, and if the Epidemic really originated from this last cause, they might have been expected to have had their share of it; which however was not the case. So that we have here a manifold proof against his theory, by its prevailing at Cadiz, where marshes do not exist, and not prevailing in the neighbouring towns, where marshes do exist; by its being contagious; attacking those persons only who had not passed it before, and by its being prevented from spreading by cutting off communication with the infected.

I cannot help taking notice of Dr. Bancroft's description of Cadiz:—he says, page 447, “ In looking for adequate
 “ causes of this epidemic, we shall readily find them in the
 “ situations and local circumstances of Cadiz, and the other
 “ towns of Andalusia, in which it prevailed. The town of
 “ Cadiz, (he says,) is upon a point of land, which, by advancing into the sea, forms within itself a spacious harbour.
 “ The external part of the city, or that which is nearest the
 “ ocean, is chiefly built on a rock, and is a little elevated;

“ but the part which is eastward, and adjacent to the harbour, is placed on *very low damp ground, contiguous to marshes.*”

I do not know where he met with this description of Cadiz!! It is not possible he could have given it from his own observation; for there is neither low damp ground, nor any thing resembling marsh, within the walls of Cadiz, all of which are washed by the sea, excepting the Land Port Barrier; nor is there any marsh more contiguous than Port St. Mary's, on one side, and Isla de Leon on the other; the one at least two, and the other seven miles distant. Remitting and Intermitting Fevers, as I mentioned before, are unknown among the inhabitants at Cadiz: when they are met with, they can always be traced to foreign origin, the consequence of having slept at Chiclana, or other villages near marshy ground.

Dr. Bancroft is so enthusiastic about the disease originating from Marsh Miasmata, that wherever the one has prevailed, he has figured in his own imagination swamps and exhalations that never were in existence: thus having in vain attempted to trace the source of the Fever at Cadiz, he goes to Gibraltar, where Intermitting Fevers occur more rarely, perhaps, than in any other spot upon the globe; and in his search for moisture, he is equally unfortunate. Gibraltar, which at the pinnacle of the rock is only 1,400 feet above the level of the sea, he describes as being,

in some places, between 2,000 and 3,000 feet high. He says, page 475, " The town itself is placed on the rock, " which extends even to the water's edge, and this being " nearly impenetrable by water, must, in that respect, produce the effect of a substratum of hard clay, and hinder " the escape of moisture, excepting only those excesses of " it which the soil cannot absorb or retain, and which must, " consequently, descend to the ocean; whose level is, I " believe, 30 or 40 feet below that of the streets, running " generally with a small descent towards it. The town, " therefore, though elevated in regard to the sea, is very " low, when compared with what may be called the mountain " behind it: and, as the great quantities of vegetable and " other matters constantly brought into the town, to " supply the various wants of the garrison, and the other " numerous inhabitants, must even, from their refused " or useless parts, afford matters sufficient (with water) " to produce abundant miasmata; especially when assisted by the fragments of vegetables growing upon, and " frequently washed down, from the mountain, we might, " I think, very reasonably expect in that climate, and in " such a situation, that marsh fevers would sometimes become prevalent. *It is, however, I believe true, that " agues do not often occur in the town of Gibraltar; and " it seems to be only in seasons when there is but little " rain for six or eight weeks, that such miasmata can, in " Gibraltar, acquire maturity and force sufficient to manifest themselves extensively.*"

I hope some of my readers will understand how this resemblance to a substratum of clay is to be produced. The Doctor himself, being aware of his difficulties, has recourse to the refuse of vegetables brought to market, which, unfortunately for his theory, and for the inhabitants, is very small in quantity, and their refuse, if there be any, is carried to the neutral ground every day.

And, as to the miasmata not acquiring maturity and force, excepting when there is but little rain for six or eight weeks, I can only say, that it is a rare occurrence to have a shower of rain at Gibraltar between the 1st of June and the 1st of October, and as to ague being produced at Gibraltar, it is so much the contrary, that although I resided there many years, I cannot say I met with four cases, excepting upon the arrival of some Walcheren regiments; and then I found the men recover so much faster than those belonging to the same regiments that had been left in England, that I recommended it to the Medical Board, as a convalescent quarter for the corps in England suffering from the diseases of that campaign.

The following Extract of a Letter, written to me by Mr. Fraser, (Deputy Inspector of Hospitals) during the prevalence of the Fever at Gibraltar in 1813, is a tolerable good proof of the non-existence of Marsh Miasmata there.

“ The elaborate endeavours to prove that Marsh Mias-

" mata have been the producers of similar maladies, occupy
 " so wide a range, that I shall at present only beg to remind
 " you of the topography of Gibraltar; the utter impossibility
 " of percolation of water through its abrupt and stony
 " sides, and the absence of those tests of aguish ground so
 " evident in other countries, and which annually prove their
 " baneful influence.

" Two facts, connected with these points, I shall mention,
 " as I think they are not to be lightly estimated.

" First—The artillery, who have been longer in the
 " climate than any other corps, have suffered with the
 " greatest severity, although for the last six weeks they have
 " been encamped on the steep side of the rock, nearly 800
 " feet above the level of the Sea, where there scarcely exists
 " a vestige of vegetation.

" Secondly—The labourers belonging to the naval works,
 " have been kept in strict Quarantine in the Dock Yard,
 " (very near the spot where the disease shewed itself in
 " 1810) and if there is a situation in Gibraltar favourable
 " to the generation of Marsh Miasmata, it is there; and in
 " 1804 it shared the fate of the other parts of the garrison;
 " yet those people this year have continued healthy, as well
 " as another party of inhabitants, who established them-
 " selves in Camp Bay, and cut off all communication with
 " the infected."

Although authors have confounded this disease with Marsh Fever, they have in general described it as having a continued form; and it has been generally allowed, that the fever consisted of one paroxysm, most frequently of about sixty hours duration, without remission or exacerbation; the patient recovering rapidly in a cool situation, or moderately temperate climate, without leaving any sequel of diseased viscera so peculiar to fevers originating from mal-aria.

Dr. Bancroft, however, evidently mistakes it; at page 51, in drawing a diagnosis between it and typhus, he says, —“ Yellow Fever is disposed to remit, and it frequently
 “ changes into a regular Remittent, and sometimes even
 “ into an Intermittent Fever.” At page 7, he says, —“ It almost always manifests a disposition to remit,
 “ unless the speedy death or recovery of the patient pre-
 “ cludes a second paroxysm. This first paroxysm, or exa-
 “ cerbation, which has been called the inflammatory, or the
 “ febrile stage, generally lasts thirty-six hours, but is some-
 “ times protracted for seventy-two hours, and even longer;
 “ a remission then occurs, in which many of the symptoms
 “ subside, so as often to induce a belief that the fever is at
 “ an end, and recovery is about to take place. Frequently,
 “ however, the foundations of irreparable injury to the
 “ brain or stomach have already been laid in the former
 “ paroxysm, and in such cases the remission is short
 “ and imperfect. During these remissions the pulse often

“ returns apparently to the condition of health; the skin
 “ feels cool and moist, and the intellect, if previously dis-
 “ turbed, sometimes becomes clear; sometimes, however,
 “ the patient remains in a quiet and stupid state, a symp-
 “ tom generally denoting great danger. Another sign of
 “ danger, as denoting a very morbid constitution of the
 “ stomach, is the renewal of the efforts to vomit, when
 “ pressure is made on that organ, or food is swallowed.
 “ After a certain interval, this remitting stage is succeeded
 “ by another, which *may be called the second paroxysm*, and
 “ which *probably* would appear as a renewed exacerbation,
 “ if the violent effects of the first had not almost exhausted
 “ the patient’s excitability, and in conjunction with the
 “ extreme depression of strength which usually attends in-
 “ flammation of the brain or stomach, rendered him nearly
 “ unsusceptible of those morbid actions which are neces-
 “ sary for that purpose. In this latter stage, then, instead
 “ of great febrile heat, and strong arterial action, the
 “ warmth of the body, and the frequency and strength of
 “ the pulse, are often less than when the patient was in
 “ health; but frequently the pain and heat in the sto-
 “ mach become excruciating, with incessant strainings to
 “ vomit, which, in most of the fatal cases, are followed by
 “ hiccough, and repeated discharges of matters resembling
 “ turbid coffee, more or less diluted, or the grounds of
 “ coffee.

If Dr. Bancroft had not described this second and fatal

stage of the disease, I should have been inclined to think that he had never met with the Bulam Fever. What he calls a second paroxysm is evidently the second stage of the disease, or gangrene of the stomach, and so different from any paroxysm or exacerbation of fever that was ever described before, that, in my opinion, he might, with equal propriety, have given the appellation of Remitting Fever to a strangulated hernia; the remission in both, as the diseases draw to a close, is the same. I shall, however, make no further comment upon it, but leave it to the reflection of my readers.

But, as Dr. Moseley is quoted by Dr. Bancroft in favor of his theory, I think it necessary to give the following extract from his publication on the Endemial Causus of the West Indies:—p. 442, he observes, “ That as to what is “ called fever, there is nothing after the first stage that “ deserves that name.” And in page 443, he says, “ *Those who have mistaken the Bilious Remittent for this “ fever, consequently speak of Remissions which do not “ happen in this disease.*”

Dr. Stuart's reasons for believing that the fever in question, when it first appeared at Grenada, was specifically distinct from every form of the indigenous Bilious Remittent, which he had ever before observed, ought, in the mind of every unprejudiced person, to be a most convincing argument in favour of the disease not having originated from marsh

miasmata, and of its deserving at least a name to discriminate it from the common Remitting Fever of the country. viz.—

1st. Because it appeared at a season of the year which he had always found healthy, during nineteen years he had resided in the colony.

2ndly, Because it did not particularly appear in those situations, where Bilious Remitting Fever usually prevailed during the unhealthy season of the year.

3rdly, Because there was an evident difference in the character and type of the two diseases, &c.

Dr. Jackson, in treating of the Yellow Fever in Jamaica, had, in my opinion, a more correct idea of it than any author who has written upon West India Diseases: he was aware of the errors which had originated from its having been considered only an aggravated species of Remittent Fever, and treats of it under a distinct head; he says it possesses characteristics of its own different from those of every other disease. He does not pretend to determine in what this characteristic difference precisely consists; yet he asserts with confidence, that the species of this disease, which terminates in Black Vomiting, may be distinguished with certainty, from the autumnal fever of aguish countries, or from the Endemic Remitting Fever of Jamaica, even in

the first hours of its attack. He says, page 250, " It has
 " never been observed that a Negro, immediately from the
 " coast of Africa, has been attacked with the disease, nei-
 " ther have Creoles, who have lived constantly in their native
 " country, ever been known to suffer from it. Europeans
 " suffer from it soon after their arrival in tropical countries,
 " but after they have remained for a year or two in those hot
 " countries, the appearance of the Yellow Fever is observed
 " to be only a rare occurrence; it has likewise scarcely ever
 " been known *to attack the same person twice*. The *Re-*
 " *mitting Fever*, on the contrary, does not cease to attack
 " such as have resided the greatest part of their life in those
 " climates; a proof, he says, that there actually exists some
 " essential difference between the two diseases, and that the
 " revolution of a season or two destroys, in the European
 " constitution, a certain aptitude or disposition for the one
 " disease, which it still retains for the other."

Dr. Jackson does not attempt to account for the cause or origin of this Continued Fever, which he is decidedly of opinion, is a distinct disease from the Remittent, nor does he suspect it of having any contagious powers; but, like former authors, conceives it to be a seasoning or tribute to be paid by Europeans soon after their landing in that climate. He published this opinion so long ago as the year 1791, the result of attentive observation and experience in the Island of Jamaica, from the year 1774 to 1778, and by

which he acquired the highest reputation, as a most accurate observer of diseases.

With such evidence before our eyes, and the coincidence in opinion with Dr. Moseley, of the disease being essentially different from the Bilious Remittent Fever, of Negroes and Creoles not suffering from it, and of its not attacking the constitution more than once; would it not be supposed, that the question was so far at rest, as to be finally ascertained, that whether there existed contagion or not, there certainly existed *two distinct diseases*, viz. a Continued and a Remitting Fever; and so far essentially differing from each other, that the one attacked Europeans, and spared the Creoles (or attacked them in a comparatively mild form); that this same attacked the human frame but once; and that the other attacked Europeans and Creoles indiscriminately and repeatedly. Dr. Jackson's opinion has been quoted by most authors, as the highest authority in this disease; and although, as Dr. M'Lean observes, it may not be safe to differ in opinion with him, how can we reconcile to ourselves his differing with himself, and taking up a new opinion, after the expiration of more than twenty years.

In his Work, published 1808, (page 6 of the Advertisement) referring to the result of his experience, which was given to the public in 1791, he says, " I was conscious at the time, and I am better convinced now, that my cir-

“ cumscribed situation in Jamaica did not furnish materials
 “ sufficient to enable me to delineate the character of the
 “ concentrated Endemic or Yellow Fever with precision;
 “ conclusions which I had formed, are also in some respect,
 “ erroneous. Of the two opinions which prevailed among
 “ Medical Practitioners, viz. the one, that Yellow Fever is
 “ only a more aggravated degree of the ordinary Endemic
 “ of the country;—the other, that some specific modification
 “ of cause exists, chiefly exerted upon the habits of
 “ strangers from northern latitudes—I inclined to the latter;
 “ more extensive experience, and more accurate observation,
 “ convince me I was wrong. The disease is actually one—
 “ the action of the cause modified by circumstances of the
 “ subject.”

Dr. Jackson's change of opinion is founded upon the
 history of a detachment of three hundred men, of the 82d
 regiment, quartered at Mirebalais in St. Domingo, in the
 year 1796. Page 61, 62, he says, “ From the 1st of April
 “ until the 19th of June, it lost ninety-two men and several
 “ officers: the destruction of the detachment was foreseen if
 “ it remained at Mirebalais; it was therefore proposed, that
 “ it should be instantly removed to the skirts of Grand Bois,
 “ but the proposition was not complied with.

“ From the 19th of June to the 13th of July, forty more
 “ died, and by the end of September, only ten of the pri-
 “ vate men were left; the officers also suffered severely, the

“ surgeon died early in June, and from that period the care
 “ of the sick was intrusted to a French Practitioner, a native
 “ or resident of this place.

“ The author, at this time, had not determined in his own
 “ mind, the relation which the form of disease, named Yel-
 “ low Fever, bears to the ordinary Endemic of the West
 “ Indies. The facts connected with the history of this
 “ detachment convinced him, that the Fever of the West
 “ Indies, aggravated and speedily fatal; or Remitting,
 “ mild, and long protracted, is fundamentally one disease,
 “ arising from one common cause—of difference, indeed, in
 “ point of force, of some difference, perhaps, in modifica-
 “ tion; but chiefly influenced, in its mode and form of ac-
 “ tion, by the circumstance of the subject. It was also
 “ proved to him, by the history of the sickness prevailing
 “ among the inhabitants of Mirebalais, during the months
 “ of June, July, and August, that natives, or those long
 “ resident in tropical climates, are not exempted from
 “ occasional attacks of fevers, so concentrated and violent
 “ as to exhibit the common signs, or to assume the cha-
 “ racter of the Yellow Fever of Europeans.”

Dr. Jackson takes it for granted, that all the variety of
 symptoms in the Fever at Merebalais were produced by
 Marsh Miasmata! If I was allowed to give an opinion,
 however, I think I might venture to say, that this proceeded
 from the existence of two distinct diseases, viz. the Remittent

and Bulam Fevers, the one originating from Marsh, and the other from Contagion. Dr. Jackson disbelieves altogether the existence of contagion in every form of West India Fever; if he did not, he could have most satisfactorily explained, not only the cause of the Fever at the Mole (where there are no marshes nor actual swamps near it*), but the cause of the sickness among the troops embarked on board the transports at the Mole for Port au Prince and other places. He says, page 65, "The most concentrated form of the disease of the country—the Yellow Fever, in all its horrors—prevailed at the Mole during the months of *June and July*, in a great and uncommon degree;" and at page 63, "The uncommon degree of sickness which has occurred in every embarkation of troops proceeding from the Mole, to Port au Prince, or other ports in St. Domingo, appears singular and not easily explained—the 29th Light Dragoons embarked at the Mole about the *end of June*, the men embarked were in perfect health—during a passage of four or five days the sick list became formidable, and one ship alone lost thirty men. A similar, perhaps even a greater, sickness and mortality was experienced by the York Hussars, in their passage from

* It must be admitted too, that fatal Miasmata arise where there are no very certain appearances of a marshy soil.—The Mole and St. Mark do not appear surrounded with marshes, yet the Fever reigns in both those places with great activity!—Dr. McLean, *Diseases of St. Domingo*, page 25.

“ the Mole to St. Mark.” Simply stating the above facts, viz. the existence of a disease at the Mole, and men apparently in health embarked at this port, crowded together in transports, being attacked with a similar disease, is surely a most convincing proof of contagion; it would most certainly be considered so in any other part of the world; and it being ascertained that the contagion of Bulam Fever is rendered more active by the increase of heat, we must be convinced beyond a doubt that the disease could, and did, arise from that cause alone. And what ascertains to a positive certainty that the contagious diseases which prevailed at St. Domingo and Gibraltar were the same, is, that the officers and men (of the 13th Regiment) who had had the disease at St. Domingo, escaped it at Gibraltar.

As we have therefore seen that the Bulam Fever raged in so violent a degree at the Mole (which was formerly reckoned one of the most healthy spots in St. Domingo) during the months of June and July—that every embarkation of troops from thence, during that time, suffered most severely from its influence, is it not reasonable to suppose that the same contagion was communicated to the post of Mirebalais, and that the dreadful mortality among the troops, as well as among the inhabitants there, was occasioned by a double cause, or two distinct diseases, viz. the Marsh and Contagious Fever? And to prove that there really existed two diseases at Mirebalais, it is only necessary to quote Dr. Jackson's own words, in describing the

disease as it then prevailed. Page 62, he says, " This
 " Fever, as appeared by actual inspection, was frequently a
 " disease of type, most usually of the double tertian form,
 " with bilious vomiting and purging, or particular affections
 " of the alimentary canal and biliary system ;—the shades
 " of yellowness were various, from a *slight tinge* to that
 " of a *Seville orange* ; but though the more common form
 " was *remitting, or like an aggravated endemic* in au-
 " tumnal months in tropical or warm climates, there oc-
 " curred, on many occasions, instances of the purer form of
 " Yellow Fever, of *rapid course, terminating with Black*
 " *Vomiting and Hæmorrhagies from different parts of the*
 " *body.*" Dr. Jackson (page 64) mentions—" That the
 " Rohan Hussars suffered dreadfully at the same time at
 " Port au Prince—the form of disease was a violent one,
 " and very fatal—the leading features were extreme livid-
 " ness, hæmorrhagies, black vomiting, yellowness of the
 " deepest cast, and in some instances convulsions and
 " rapid death." And in Dr. M'Lean's work upon Diseases
 of St. Domingo, I find that the 82d Regiment, mentioned
 above, had a very short time before been quartered at Port
 au Prince, and in consequence of their sufferings there, had
 been removed to Mirebalais, as a healthy quarter. Page
 221, he says—" The 82d Regiment, one of the finest
 " I ever saw, was stationed in this quarter, to which
 " they were sent as a refuge from the devastation of
 " Port au Prince, *where numbers of them had already*
 " *perished.* It is melancholy to relate that they here found

“ no sanctuary, and returned in a few months not twenty
 “ men strong. This beautiful Corps, in less than a year,
 “ lost upwards of eight hundred men, and twenty offi-
 “ cers.”

The following Extract from Dr. M'Lean's Account of the different Ports at St. Domingo, also convinces us of the existence of a contagious disease.

“ The Croix de Bouquet is found tolerably healthy by the
 “ French inhabitants, but it has proved fatal to the few
 “ British who resided there.

“ St. Mark's, formerly pretty healthy, has proved fatal
 “ to our troops; part of the 92d Regiment landed there,
 “ and *were soon exterminated to a man!*

“ Our troops have also suffered much at L'Arcahay, which
 “ formerly was reckoned a very healthy situation!”

Does not this complication of diseases, in some degree, account for the difference of opinion among medical men, with respect to contagion, and the method of cure in West India Fever? At the Mole, for instance, where Marsh Fever is rare, and then only with persons who, perhaps some time before, had been exposed to the Marsh Poison, the nurses and persons attending them in hospital

would, of course, run no risk of contagion; or if their constitutions had been rendered proof against the Bulam or Contagious Fever, by having suffered an attack of it, they might, during the prevalence of this last disease, even in its most formidable shape, be brought forward as proofs of non-contagion.

This has very generally been the case, and has as generally been believed, and perhaps would have continued to be so, had not our experience in Europe, where the Contagious Disease prevailed singly, and in places where Marsh Fever did not exist, enabled us to explain satisfactorily that this security depends not upon the non-contagion of the disease, but upon the powers of the constitution, in resisting a second attack.

Authors, from being unacquainted with the peculiarities of this fever, have been at a loss to explain the various phenomena attending it. They have drawn all their inferences from the contagion of typhus, which they supposed could not exist in a certain degree of heat; they have taken it for granted, that if the Yellow Fever was possessed of contagious powers, they were of course of the same nature; and not aware of the influence of heat in its propagation, they have decided upon it as a non-contagious disease, from its being governed by circumstances contrary to the known laws of the contagion of Typhus.

And not being aware of its attacking the human frame but once, or of the clemency which it displays towards the natives of warm climates, or acclimatés, they have described it, if possessed of any contagious power, as having a very uncommon and peculiar appetite, looking out for strangers, and avoiding the inhabitants of its own country.

But however strange and unprecedented as are its propensities, and however irreconcilable with established principle, they have been most amply confirmed in every particular at Cadiz, Gibraltar, and in the United States. It being a disease of rather a whimsical character, but regular in its irregularities, and with which being now intimately acquainted, we can as satisfactorily explain—Why it should attack whites in preference to blacks?—Why it should prefer a robust European to a languid Creole? and why it should respect the sable race of the West Indies, yet attack the negroes of North America? As we can explain why the small pox should not spread in the British camp in Egypt; or why this disease should attack the natives of India in a confluent, and the British troops in a mild form; or why the plague should have a stronger appetite for the natives of a warm than of a cold climate.

Sir James M'Grigor, in his Medical Sketches, page 195, mentions,—“ That the Europeans who were attacked with “ the small pox in Egypt, all did well; but it proved a

“ very fatal disease to the few Indians whom it at-
 “ tacked. And as in India, we remarked, that in Egypt
 “ the contagion did not spread so widely as in Europe,
 “ though at different periods it broke out in the hospital of
 “ the 10th Regiment at Rosetta, in the department of the
 “ Commissary of Cattle, encamped near the Lake Mareo-
 “ tis, and in the garrison of Ghiza; yet in none of these
 “ instances did the disease spread!!”

And, with respect to the Plague, I have the authority of Dr. Bancroft himself, for that disease possessing peculiarities with respect to contagion, equally if not more remarkable than the Bulam Fever.

He says, at page 591,—“ There were, however, persons
 “ in Egypt who had been long accustomed to greater de-
 “ grees of heat, and who were therefore not rendered in-
 “ susceptible of the disease; and some few of these caught
 “ it, after it had become extinct in the British army; and
 “ when a person recently landed from England would not
 “ receive it, *though he slept in an infected bed*; and it
 “ was from this cause that in the autumn of the same year,
 “ the disease began at Rosetta two months nearly before the
 “ usual time, *i. e.* on the 13th of September, when I first
 “ discovered it in two natives of the East Indies, attached
 “ to the Indian army; and it was propagated with some ra-
 “ pidity for six or eight weeks, among persons who were either
 “ born in, or had just come from, a climate *much hotter* than

“ Egypt, whilst the British troops directly from England
 “ did not receive, and probably could not have been made
 “ to take, the disease.”

He is very angry with Dr. Chisholm for not explaining the singular predilection in the European constitution for the Bulam Fever, on first entering the Torrid Zone, and concludes, that if it really did exist, it would be a singularity never before observed in any other contagion.

If Dr. Bancroft can give any good explanation with respect to the predilection of the contagion of plague for its own countrymen, it would in all probability clear up the mystery with respect to the Bulam Fever! His theory, with respect to persons being exempt from Yellow Fever in proportion to their power of supporting heat, if it was even admitted in the Remitting, will not apply to the Bulam Fever; for, as it is established beyond a doubt, that the human frame is attacked by it but once, we cannot conceive that this attack, however mild or severe, could generate any power, or produce such change in the human frame, as to enable it to endure a greater degree of heat.

As much stress has been laid upon the disease being produced by heat and want of rain, I shall here give a state of the weather during three years at Gibraltar.

From which it appears, that in 1812 there was a greater degree of heat, and less rain, than in 1813, the first year in which the disease prevailed after 1810; in which, last year, it did not make its appearance within the walls until the 20th of October, although it had been raging on board the transports from Carthagena for a month before.

The very unusual quantity of rain in 1813, began to fall when the disease was at its acmé, and produced no alteration; and in 1804, I was inclined to think, that rain which fell before the cool season had fairly set in, proved rather prejudicial, as it induced the soldiers to retire from the open air, and crowd together in their tents or barracks, where, if contagion existed, it was much more likely to exert its influence.

From this state of the weather it is very evident, that heat had no share in producing it; if it had, we might have expected the disease to have been very general in the summer of 1808; which, I believe, was the hottest, and perhaps the healthiest, upon record, of any season in the Mediterranean: and if either heat or Marsh Miasmata can be supposed capable of producing it, how is its non-existence in the East Indies to be accounted for; where we have the Marsh Fever in its worst form, under Jungle and other names, without any suspicion of contagion, and where no disease, resembling the Epidemic Fever of the West Indies,

Cadiz, or Gibraltar, has been mentioned by any author;* and I have the authority of Dr. Ker, one of the members of the Medical Board, who has seen the disease in the West Indies, and who resided several years in different parts of the East Indies, to say, that in that country (Indostan, the Decan, or even in Ceylon), he never met with, nor heard of any disease that was attended with black vomiting, or that peculiar livid appearance of the countenance, or, in fine, any disease resembling the Bulam Fever.

Dr. Bancroft, at page 431, says,—“ That he regrets
 “ being under the necessity of laying aside a great mass of
 “ facts, which he had collected, with no inconsiderable
 “ trouble, respecting the prevalence and different forms or
 “ gradations of Marsh Fevers, not only in Africa, and the
 “ East Indies, but in various parts of France, Italy Sar-
 “ dinia, Sicily, Malta, Greece, &c. and which, had he
 “ room, would greatly illustrate the subject, and confirm

* Since writing the above, I have read an account of a disease, in many particulars resembling this fever, (published by Mr. Johnston, Surgeon, Royal Navy), which prevailed at the island of Edam, on the coast of Batavia.—Query, from the communication which is kept up between that country and the coast of Siam, may it not have been the same disease as described by French authors under the name of Mal de Siam?

“ what he has already written, as well as what he is about
“ to write of the Yellow Fever.”

It is certainly much to be regretted that he did not indulge us with a few of those facts, out of the great mass which he had collected, and which I cannot help thinking he would have done, if he had found even one favorable to his purpose! for although he might in all those countries have met with Marsh Fever in every variety of form, he could not have attributed to any of them the properties which are peculiar to the Bulam Fever.

And I am convinced, that if Drs. Jackson, Bancroft, or Lempriere, had been acquainted with the peculiarities of this disease; or if they had witnessed it either at Cadiz or Gibraltar, they would have formed very different ideas respecting it, from what they did in the West Indies, under the impression of seasoning, or marsh miasmata; for, in Europe, no seasoning, or length of residence, was a defence against it; it attacked natives of the place where it prevailed, equally with strangers, and them with a severity proportioned to the degree of north latitude in which they had been born. The only persons totally exempt from it were those who had had it before, either in the West Indies, or America; and having been in the West Indies before 1793, was no exemption from its attack: of this we had several instances at Gibraltar, particularly two serjeants,

one of the 10th, and the other of the 13th Regiment, who had left Jamaica in 1792, for the purpose of recruiting in England, and they were the only two men, in the army, attacked by it who had been in the West Indies.

Dr. Bancroft, p. 446, allows,—“ That at Cadiz persons, *who had lately arrived from the West Indies*, “ owing to their being accustomed to the like seasons, *did not suffer an attack of this epidemic*; and that even “ those who had been *long resident in that part of Spain*, “ *were, in a great degree, exempt from it*; and, on the “ other hand, that *persons from Canada*, (and other north- “ ern countries), *were extremely liable to it*, which (he “ says), are circumstances clearly manifesting its resemblance to Yellow Fever, and its want of contagion.”

This circumstance certainly manifests its resemblance to Yellow Fever, or rather to the Bulam Fever; but so far from being any proof of its want of contagion, is one of the strongest and most convincing arguments in favor of it, and of its being a distinct disease, which attacks the human frame but once; as if the fever had originated from the marshes, which Dr. Bancroft has described at Cadiz, (*but which do not, nor ever did exist*), those persons, lately arrived from the West Indies, would have had it in the form of Remittent or Intermittent, if not in the concentrated continued form, (which however was not the case).

And at page 244, he gives it as his opinion, that the same individual may have the disorder several times.

He is at a loss to account “for the *cause* of that remarkable *susceptibility* to this disease, which is commonly found in persons who have *just arrived at places where it occurs*, from cold or temperate climates; *and of the equally remarkable exemption from it*, which is commonly experienced by the *old* inhabitants of hot countries; and which, in the latter, is universally ascribed to their having become seasoned, as it is called; but however familiar this term may be, and of whatever importance its proper signification really is, it has been long employed either without any precise meaning, or with meanings which are *inadmissible*. Thus it is often said, that a person is seasoned who has once had the Yellow Fever; but very improperly, *because the same individual may have the disorder several times.*”

All this I allow, with respect to Marsh Fever, or the Sporadic Bilious Fever, which are the Yellow Fevers of the West Indies, and both not contagious; and I take it for granted, that it is one, or both of those diseases, which Dr. Pinckard mentions at page 257, wherein he says,—“Amidst my unconnected notes I may observe, that to the mortification of those who have already suffered the Yellow Fever, as well as to others, we know that it may, and does, attack the same person, not only a second time, but many times.”

After what I have advanced against those opinions, it is unnecessary to say more, as in all parts of Europe at least, persons residing in places where it has occurred, look upon themselves as proof against a second attack, as they are against Small-pox or Measles. And as Dr. Bancroft, page 255-6, in supporting his favorite theory respecting the ability of the human body to endure great heat, has forgot what he advanced at page 244; I shall here give his own words, which is coming very near an acknowledgment of the disease attacking but once.

“ The excitement in the system, which ensues immediately upon a person’s coming into a warm climate from a temperate region, renders him eminently liable to the Yellow Fever, (and with which he is supposed to be immediately attacked), when exposed to the influence of Marsh effluvia: by degrees, however, the excitability producing this commotion abates, and at the end, sometimes of twelve months, but oftener of a year and a half, or two years, he acquires the power of supporting this high temperature, and then beomes *almost as insusceptible of the disease as the natives or old inhabitants*: and afterwards retains this *happy immunity* so long as he continues in that climate, the great uniformity of which does not, indeed, afford him any means of losing it. He may likewise go from the West Indies to those parts of North America, or Spain, where the Yellow Fever is raging with the utmost fury, *with almost a certainty of escaping the disease.*”

Considering this a contradiction to what he said before, respecting the same individual having the disorder several times; and having brought him to acknowledge this *happy immunity*, I shall proceed to examine into his authorities in support of this disease being non-contagious. Among the first I may reckon Dr. Nooth, who, (I must agree with Dr. Bancroft), is a man of great experience as well as learning, and the last medical man I know, who I should have thought it possible to have fallen into such an error, as his opinion upon the present subject proved to be.

Dr. Bancroft, p. 482, says,—“ Dr. Nooth, during his
 “ long services in different parts of America, became well
 “ acquainted with Marsh Fevers, in their several forms;
 “ and he was soon convinced that an exact similitude ex-
 “ isted between the most violent of these, and the disease
 “ then prevalent at Gibraltar; and, consequently, that the
 “ latter was void of contagion.”

Whether Dr. Nooth saw cause or not to change his opinion with regard to the infection or contagion of this disease, I leave my reader to judge from his official letter (page 38); and whatever was Dr. Nooth's experience in Marsh Fevers, he certainly did not suspect this cause at Gibraltar; and he expressly says, that it arose from a combination of causes, viz. heat, drought, crowded population, (contagion might be suspected here, as he recommended the removal of the troops into camp), and the burning of the lime kiln.

I shall next mention Dr. Lempriere, who, (vol. ii. p. 6.), after describing what he calls the Tropical continued Fever, and attempts to prove that it does not arise from contagion, but from marsh miasmata, observes:—" But there is a variety
 " of this disease, concerning which some doubts may be entertained, whether it be not of an infectious tendency;
 " and it is that which has proved so rapidly fatal to many
 " of the soldiery, but more particularly to all seafaring
 " people." It appears to him to be a combination of *Tropical Endemic, and Typhus Fever*, or rather a disease arising *from the united action of marsh miasmata and human effluvia*, on constitutions predisposed to receive their influence.

His description of its symptoms corresponds exactly with what is mentioned by all authors as the most aggravated form of this disease, viz. hæmorrhages; yellow suffusion of the eyes and neck; livid countenance, and black vomiting. He says, he had no opportunity of seeing the fever which occasioned so much mortality among our troops at St. Domingo; but that he was informed, from the best authority, that in both places the symptoms exactly corresponded, and from the troops having arrived under similar circumstances to those in Jamaica, *he could not admit a doubt in his own mind of the disease in question being of a contagious nature*, and of its differing, in some very essential points, from the fever (Bilious Remitting), which generally proves so fatal to newly arrived Europeans in Jamaica.

Here we have Dr. Lempriere, one of the strongest advocates against the contagion of the West India epidemic, describing the very same disease in its worst form; unable to account for its contagious powers but by supposing it a new and a different fever—a mule—the progeny of two different powers, or two distinct diseases, but retaining the characteristic and fatal symptom of its tropical mother, the black vomit, a symptom, though very rare in any other disease, even in the West Indies (many medical men having resided years in that climate without having once seen it), is an almost constant attendant in the last hours of the contagious Epidemic Fever, not only within the Tropics, but in Europe.

Page 97, he says,—“ In the year 1793 the island of Jamaica experienced its share of sickness and mortality, which prevailed throughout the West India Colonies; and the Town of Kingston was more exposed to this calamity than any other part of the island. The disease appeared in a form so different to what had marked a number of years, that the faculty were equally at a loss to trace the source, as to define its character, or to decide upon principle, what ought to prove the most successful mode of treating it; and, perhaps, in the history of medicine, there never was a disease which gave rise to such opposite opinions as that which proved so fatal to the West Indies. By one party it was considered to be the Endemic Remittent in a more aggravated form, while the other classed it under the head of a new dis-

“ ease, originating from contagion, but marked with symp-
 “ toms, differing materially in their appearance and termi-
 “ nation, from those infectious diseases which frequently
 “ occur in Europe.” He says,—“ that it ought not to be
 “ considered *generally* contagious, but that it originated
 “ from climate; that it was the disease to which newly ar-
 “ rived Europeans have ever been subject *at particular*
 “ *periods*, and *that in this form of disease*, it was in no
 “ instance contagious; but that particular circumstances in
 “ the shipping, gave rise to a *variety*, which produced a
 “ train of symptoms, partly partaking of the original, and
 “ partly of the Typhus, or Ship Fever; and that *this form* of
 “ the disease proved *infectious* to newly arrived Europeans
 “ only. The greatest mortality was among the transient in-
 “ habitants, although the residents produced more deaths
 “ than in many of the preceding years.” From these state-
 “ ments, he says,—“ It may be fairly concluded that the disease
 “ was not *generally* infectious, since it appeared in a town
 “ where every circumstance, *except the climate*, tended to
 “ the generation and diffusion of contagion; and conse-
 “ quently, that had it been a disease of that nature, the
 “ inhabitants would have been equally exposed to the
 “ attacks with the newly arrived Europeans.”

Here Dr. Lempriere acknowledges himself, as well as
 most of the medical men in the island, at a loss how to ac-
 count for the symptoms prevailing in this calamity, or new
 disease. He acknowledges that they were very different

from what had appeared *for a number of years before*. He cannot altogether deny its contagious powers, but attempts to modify them by saying, they are not general; that is to say, that it is infectious to newly arrived Europeans *only*, and not to the natives or old inhabitants—that it originates from climate; and that it was the disease to which newly arrived Europeans have ever, at *particular periods*, been subject, although in the next line he seeks for the occasion of this variety of fever in a combination of circumstances connected with the shipping, and with typhus fever from England.

I am only surprised that Dr. Lempriere did not draw some line between the natives or long residents, and the newly arrived Europeans. Dr. Jackson, who published upon fevers of Jamaica some years before, mentions particularly (page 250) the different degrees in which they were affected by Yellow or Continued Fever, and the Bilious Remittent; and if he had attended to this, he would have been much better enabled to account for the contagion being general, being aware, as he must have been, that whole regiments of Europeans had been for years in the island, enjoying the highest degree of health, without any attack of disease that could be called Yellow Fever or Seasoning, until the appearance of this *calamity*, as he terms it.

The mystery, therefore, in which the Medical Gentlemen

of Jamaica were involved, is now unravelled, by it being ascertained beyond a doubt, that the disease in question is neither the produce of Marsh Miasmata, nor of Typhus, nor a constant resident in the West Indies, but of foreign origin; and that when it does prevail, it favours the natives or persons who have been long residents, by attacking them in a comparatively mild form; and having attacked them, or newly arrived Europeans, once, their constitutions are rendered as proof against it a second time, as against a second attack of small-pox. And, however contrary to old and generally established opinion, I no more consider an attack of this disease as a necessary seasoning to the European constitution in the West Indies, than I should consider an attack of small-pox a necessary seasoning to the constitution of a native of Otaheite newly arrived in England: if he is kept out of the way of contagion, he will escape the disease!!

And as to what Dr. Lempriere says, with respect to every thing at Kingston being favourable to the propagation of contagion, *excepting the climate*; if he had been aware of the peculiarities of this disease, he would have known that the heat of the climate, although inimical to the contagion of Typhus, is most favourable to it in this disease, increasing its powers in a wonderful degree, and is the great cause of its devastation in the regions of the world where it has existed.

And although the Doctor is so sceptical with respect to contagion attacking the inhabitants of Kingston, I strongly suspect, nay, I am convinced, that they had their share of the epidemic, and that through the medium of contagion. This I leave my readers to judge of from his own words, (page 3, vol. i.)—and as he has at all times confounded this disease with the Bilious Remittent, it is to be expected that he should fall into the same mistake when it attacked natives, or old residents, who, from having their constitutions assimilated to the climate, had the disease in a milder form than the newly arrived Europeans. His words are—“ The
 “ morbid state of the atmosphere, at one period, gave the
 “ Remittent, or Common Endemic, a *form* and *frequency*
 “ that almost threatened the depopulation of the country ;
 “ people of all ages, complexions, and countries, fell under
 “ its influence. Among the natives or residents very few
 “ families escaped some sickness ; and the disease proved
 “ so fatal in Spanish Town and Kingston, that mourning
 “ was at one time with difficulty purchased. We may,
 “ therefore, conclude that Jamaica experienced as much,
 “ or perhaps more, sickness in proportion than any of the
 “ other islands, St. Domingo not excepted.”

To shew the health of a regiment quartered at Kingston before this melancholy period, or rather before the contagion was introduced, I shall insert an extract of a detail respecting the interior economy of the 13th Regiment, from

Dr. Gordon (late a Member of the Medical Board, and formerly Surgeon to the 13th Regiment) to Dr. Lempriere.

“ I joined the 13th Regiment in November, 1792, they
 “ were then quartered in Kingston, three hundred and fifty
 “ strong, and were composed almost entirely of young
 “ men in the prime of life, that period on which tropical
 “ diseases commit their greatest ravages. From the month
 “ of November, 1792, to the middle of September, 1793,
 “ when the regiment left the island, a space of ten months,
 “ the number of sick varied from five to thirty-two (includ-
 “ ing every man with the most trifling complaint), and only
 “ eight deaths occurred.

“ At the acmé of the sickly season, and after a very
 “ short notice, this regiment embarked for St. Domingo,
 “ every man fit for service, except six old cases of dis-
 “ ease, who were left in hospital, where they had lin-
 “ gered many months before. During the first six months
 “ service in St. Domingo, the 13th did not lose a man by
 “ disease, nor did they suffer much afterwards, till har-
 “ rassed and worn out by severe and constant duty.”

Dr. M'Lean, in his Preface, says, “ The Fever described
 “ by Dr. Rush, which raged with so much violence at
 “ Philadelphia, differs very widely from the disease, (the
 “ Endemic Remittent) which caused the astonishing mor-

“tality of St. Domingo.”—Page 76, he observes, “That Dr. Rush very clearly proves, in his own person, that the Philadelphia Fever was remarkably contagious!”—Dr. M’Lean was of opinion, that the Fever at St. Domingo was not contagious, but at page 74 he says, “It is true that numbers suffered from a contagion they carried on shore with them from the transports: the 96th regiment were almost annihilated by a fever of this description, and other regiments also suffered from the same cause; *but contagions must very soon cease and disappear in a hot climate!*”

Here we have again the old opinion respecting the speedy disappearance of the contagion of Typhus in a warm climate. If this contagion had been brought from Europe in the transports, why did it not exert and expend its influence before it entered the Tropics? and why did it not disappear (if a warm climate is unfavourable to the spreading of contagion) before it had *annihilated* the 96th and other regiments? The truth is, that the contagion which made such havock among our troops was not that of Typhus, nor was it brought from Europe; but the contagion of the Bulam Fever, which had prevailed in, and was imported from the other West India Islands; the same disease which was mistaken for a Hybrid by Dr. Lempriere—the same disease which attacked the 2d regiment at Martinique, and the 35th regiment at Guadaloupe, almost upon the day of their landing; and, in fine, every description of person, civil or mili-

tary, and that in a degree of severity proportioned to their length of residence in the climate, the mortality among the natives or acclimatés bearing a very small proportion to that among the newly arrived Europeans.

Dr. Bancroft's next authority for non-contagion is M. Gilbert:—at page 343 he says, “ In regard to the fever
“ which destroyed the army under General Leclerc, at St.
“ Domingo, in 1802 and 1803, I must refer my readers to
“ M. Gilbert's *Histoire Medicale*, only observing, that he
“ also declares it not to have been an imported disease, but
“ to have originated in an atmosphere extremely heated,
“ and filled with Marsh Effluvia, (“ elle a son origine dans
“ un air très chaud, saturé d'émanations marécageuses”) p.
“ 93. He adds, in the next page, that it is not con-
“ tagious.

Monsieur Gilbert certainly does say so, but he only mentions this as the *general opinion*, and is decidedly of a contrary opinion himself! and if Dr. Bancroft had not been much more laconic than usual, or if he had been anxious to give M. Gilbert's own opinion, he would have followed up his quotation from page 94, respecting the non-contagion of this disease, by giving his own words—which are

“ La fièvre jaune n'est pas contagieuse: cette opinion est
“ celle de la généralité des praticiens!

“ Cependant on ne peut se dissimuler qu’une maladie aussi
 “ grave et d’un caractère putride et gangréneux, ne puisse
 “ se porter par communication de l’air respiré, ou par le
 “ contact des effets imprégnés de ces miasmes, sur les
 “ hommes qui, par état ou par dévouement, s’exposent à
 “ tous les instans du jour à l’action des causes qui la font
 “ naître, et qui l’entretiennent. Tel est le sort des officiers
 “ de santé, des employés dans les hôpitaux, et de tous
 “ ceux qui visitent fréquemment ces asiles de la souffrance.
 “ Ce fléau n’a pas même épargné les hommes les
 “ plus acclimatés, c’est-à-dire, ceux chez lesquels les effets
 “ des miasmes et de la contagion sont en partie détruits par
 “ l’habitude.”

His next authority is at page 331—“ Dr. Hillary (he says)
 “ was a well-educated physician, and practised, with un-
 “ equalled credit, for many years, in Barbadoes; and, as
 “ the Yellow Fever does not appear to have prevailed there
 “ epidemically during his time, he must have had the best
 “ opportunities for ascertaining whether it possessed any
 “ contagious property or not; especially as he, undoubtedly,
 “ saw cases of it, arising from all the several causes which
 “ have been already mentioned as capable of producing
 “ idiopathic Yellow Fever; some of which might be sup-
 “ posed, more likely than Marsh Miasmata, to occasion
 “ fever with a contagious quality. And he has delivered
 “ the result of all his observations in the following passage,
 “ viz.

“ I never could observe any one instance, where I could
 “ say that one person was infected by, or received this
 “ fever from, another person who had it; neither have I
 “ ever seen two people sick in this fever in the same house
 “ at or near the same time, unless they were brought into
 “ the house when they had the fever upon them before they
 “ came in:—from whence (adds he) we may conclude,
 “ that it has nothing of a contagious or pestilential nature
 “ in it.”

This Extract from Dr. Hillary's Publication, p. 145-6, is one of Dr. Bancroft's strongest proofs of non-contagion; but he has cut Dr. Hillary short in the same way that he did M. Gilbert; for if he had lengthened his Extract, by including the sentence immediately preceding it, he would have done more justice to the question; for Dr. Hillary, his highest authority, decides against him most positively:—his words are, “ this fever very *rarely*, or never, is infectious or contagious to others, not even to those who attend the sick,
 “ *except a chance time*, when it is in its most putrid or
 “ malignant state at the latter end of the disease, or soon
 “ after the death of the patient, when the season is very
 “ hot; and this fever is accompanied with the symptoms of
 “ *some other malignant fever, which is then epidemical or*
 “ *contagious, as happened once at Antigua, and once or*
 “ *twice in this island*, and the same may probably have
 “ happened in some other places.”

So much for Dr. Hillary's opinion respecting contagion!! and what he says respecting the weather at page 146, is a strong argument against the Bulam Fever (which I believe he never saw) deriving its origin from Marsh Miasmata—he says,

“ It does not appear, from the most accurate observations of the variations of the weather, or any difference of the seasons which I have been able to make for several years past, that this Fever is any way caused, or much influenced by them ; for I have seen it, at all seasons, in the coolest, as well as in the hottest time of the year.”

So that if we are to judge from Dr. Hillary's own account, we may with safety assert, that the cases of Yellow Fever which he describes, were not the Bulam Fever, but the Bilious Continued or Sporadic Fever, which is not contagious, and produced at all seasons of the year by intemperance or exposure to the sun ; or the Bilious Remittent, produced by Marsh Miasmata ; this is the more probable, as Dr. Bancroft observes, that the Yellow Fever does not appear to have prevailed *epidemically* during his time (which it always does when it first makes its appearance), although he mentions an epidemic and contagious disease having prevailed once at Antigua and twice at Barbadoes.

Dr. Bancroft quotes Dr. John Hunter's opinion against the contagion of this disease, although from his own words

he decidedly treats of the Fever in its Remitting form, and not in its Concentrated continued form, as it has been described by Dr. Moseley, Dr. Jackson, and others. He says, page 178—

“ I have had occasion to observe that the *Remittent*
 “ *Fever*, whether with its usual or more uncommon symp-
 “ toms, with or without the yellowness of the eyes, was
 “ never found to be infectious.”—And at page 103, “ That
 “ he never met with the Hospital or Jail Fever in Jamaica,
 “ and that the two diseases are easily distinguished!! *The*
 “ *disposition to remit, which is constant in the Fever of*
 “ *Jamaica, is alone sufficient to discriminate them.*”

The same disposition to remit is a marked discrimination between that disease and the Bulam Fever; this last running its course in from twenty-four to seventy-two hours, and the paroxysm once at an end, there is never the slightest appearance of exacerbation; so that from Dr. Hunter's own account we have reason to believe, not only that he never met with what is now called the Bulam Fever, but that it did not exist in Jamaica during the time that he resided in that island:—and as he treats of the Remitting or Marsh Fever only, I agree with Dr. Bancroft that it was not contagious.

As a farther proof that Dr. J. Hunter treats of the Remittent Fever only, I shall here quote his words respecting

the health of Fort Augusta and Port Royal, at Jamaica, at both of which places the military, as well as the inhabitants, suffered severely from the Contagious Fever in 1794.

Page 13—"The heat of tropical climates, though generally reputed the cause of their unhealthiness, will not alone produce fevers, as is strongly exemplified in those living on board of ship, who remain free from fevers; and, also, in the inhabitants of certain *dry sandy* spots, along the coast, in which the heat is uncommonly great, yet the situations are healthy, as Fort Augusta, Port Royal, and others."

Dr. Gillespie is next quoted in favor of the Continued or Ardent Yellow Fever being the same disease; we shall be able, however, to judge of Dr. Gillespie's opinion, respecting contagion, from the following passage: page 48—(he says)

"Infection could in many instances be traced, and appeared to operate as well through the medium of terror, as that of the effluvia emitted from the bedding and persons of the patients. Of this a melancholy instance happened about this time in an armed Sloop, into which a draft of about fifty men had been judiciously sent in order to cruize, and thereby be preserved from sickness: but *the contagion* having been carried on board previous to her sailing, and the officer who commanded her being

“ destitute of medical aid, the men were attacked in suc-
 “ cession, and three-fourths of them died.

“ On board of some other armed vessels, in which
 “ drafts had been sent, the people continued in good
 “ health, being employed in beating about at sea.”

And Dr. Pascalis, who is quoted in favor of the non-
 contagion of the Epidemic in Spain, makes use of the fol-
 lowing words, in his Observations upon the Yellow Fever of
 Philadelphia.

“ Without regard to any system, or to contested doc-
 “ trines, it has appeared to me, as well as to many Prac-
 “ titioners, that a considerable number of the cases could
 “ not be traced but to a *contagious power of the fever*
 “ *itself* ; such were the cases of whole families, who seemed
 “ preserved as long as they had no patient in their house,
 “ and who all perished or were sick, without exception, as
 “ soon as they admitted among them somebody affected
 “ with the disease. This deplorable effect has been seen
 “ in the most wholesome parts of the town, and at any pe-
 “ riod of the season ; so that in many instances, where the
 “ disease seemed most universal, by care and precaution,
 “ people were preserved ; while in the country they fell
 “ victims to their unreserved intercourse with patients,
 “ when the epidemic was fast decreasing in every part of
 “ the town.”

Having made this collection of evidence, which Dr. Bancroft has produced as his principal support in favor of non-contagion, and having by cross-questioning his witnesses brought out the truth, I trust, that although it would be reckoned unfair in a criminal cause, it will not be reckoned so in a medical one, to have convicted him upon his own evidence; for Dr. Nooth acknowledges that he caught the disease in General Barnett's quarters—*that focus of contagion.*

Dr. Lempriere says, "Having been informed, from the
" best authority, that the symptoms in the fevers which oc-
" casioned so much mortality among the troops at St.
" Domingo and Jamaica exactly corresponded; *he could*
" *not admit a doubt in his own mind of the disease in*
" *question being of a contagious nature.*"

Monsieur Gilbert also says, *he cannot deny that the*
disease may be communicated by contagion.—"Par com-
" munication de l'air respiré, ou par le contact des effets
" imprégnés de ces miasmes."

Dr. Hillary says,—"*It is rarely infectious or contagious*
"*to others, except a chance time, when the season is hot,*
"*or when it is accompanied with the symptoms of some*
"*other malignant fever, which is then epidemical and con-*
"*tagious.*"

Dr. Gillespie attributes its spreading on board ship to infection, although at page 62 he says,—“ It did not appear to be *remarkably* infectious on shore.”

And Dr. Pascalis acknowledges—“ that a number of the cases could not be traced but to a *contagious power of the fever itself.*”

Having shewn what dependance is to be placed upon Dr. Bancroft's authorities for non-contagion, I shall next make a few remarks upon the arguments which he uses, with the view of getting rid of the importation of disease into Philadelphia, Cadiz, and Gibraltar; and of imposing upon the understanding, and dazzling the senses of his readers, particularly those who had not opportunities of gaining information, or perusing original histories of the disease, as it appeared in those places.

In describing the situation of Philadelphia, he says,—
 “ The ground between the southern extremity of the city,
 “ or rather of the suburb, called Southwark, and the
 “ junction of the Delaware and Schuylkill, is generally
 “ very low, rich, and damp, I might say swampy, in many
 “ places; and, apparently, is as well suited to produce
 “ marsh miasmata as any part of Zealand, and with *greater*
 “ *morbific powers*, because the summers at Philadelphia
 “ are much hotter. Thus situated, it can hardly be necessary to observe, that Philadelphia has been frequently

“ infested by marsh fevers, though it is not known that,
 “ previous to the year 1793, they assumed, *epidemically*
 “ the violent form of Yellow Fever, except in the years
 “ 1699, 1741, 1747, and 1762. The great mortality
 “ which the Yellow Fever produced in 1793 at Philadelphia
 “ is well known. From the great numbers attacked by it,
 “ at that time, and the influence of pre-existing opinions on
 “ the subject of contagion, the physicians, as well as the
 “ inhabitants, seem to *have immediately, without enquiry*
 “ *or consideration*, concluded that it must be a contagious
 “ disease; and most of them inferred, as a natural conse-
 “ quence, that it had been imported from some part of the
 “ West Indies, though there was much disagreement in
 “ regard to the particular vessels, chargeable with this im-
 “ portation, as well as in regard to the places whence it
 “ had been brought; some deriving the evil from Grenada,
 “ others from different ports of St. Domingo, &c.

From this account of the low, rich, and damp ground,
 and the high temperature of the atmosphere at Philadel-
 phia during the summer, if this epidemic derives its origin
 from heat and moisture, it must appear rather singular that
 it did not occur oftener than three times in the course of a
 century;—and it must appear still more strange, that when
 the disease made its appearance in 1793, that the physi-
 cians, as well as the inhabitants, *without enquiry or con-*
sideration, should trace its origin to the Sans Culotte and
 the two vessels from Hispaniola, as they did in 1797 to the

Arethusa from the Havannah (vide page 103), and that too, without any disagreement as to the particular vessels in which, or the island from which it had been imported. If there was any want of enquiry or consideration, it is evidently on the part of Dr. Bancroft, who, with one dash of his pen across the Atlantic, decides against the College of Physicians, who had consideration enough not only to ascertain the source of the infection, but to Memorial for a revision of the Quarantine Laws, which for several years past have been the means of saving that city from a similar visitation.

At page 442 he mentions this disease at Cadiz in the following words:—" In the summer of 1800 this fever appeared as a most formidable epidemic, not only at Cadiz, but in almost all the sea-port towns of Andalusia, particularly Seville, Cadiz, St. Lucar, Puerto-Santa-Maria, Puerto-Real, Rota, and L'Isla; occasioning the deaths, as is computed, of nearly eighty thousand persons. It also prevailed at the same time on the coast of Barbary, particularly at Tangiers and Tetuan.

" The goverment, as well as the inhabitants of Cadiz, appear to have adopted the belief of an importation of the supposed contagion from America; and a ship, called the Dolphin, belonging to Baltimore, was *generally and decidedly selected* and accused as having been the *vehicle* of this mischief: and reports were *fabricated*, by which three persons were stated to have died of Yel-

“ low Fever on board of the Dolphin during her passage ;
 “ and what had been supposed to be the first cases of the
 “ fever at Cadiz, were declared to have occurred in different
 “ individuals, who had all *directly* communicated with the
 “ Dolphin, or some of her crew; and other sailors belonging
 “ to the same ship were said to have found their way up
 “ the Guadalquiver, *through* St. Lucar, (in which town,
 “ however, the disease did not appear until the middle of
 “ September) and, by lodging in the suburb of Triana, at
 “ Seville, to have produced the Yellow Fever there, *some*
 “ *days before its appearance at Cadiz.*

“ It was proved, by the testimony of Don José Caro, a
 “ Spanish physician, who had returned as a passenger on
 “ board the Dolphin, and was examined on oath by the
 “ judges at Seville, that the diseases, of which the three
 “ sailors had died on board of that ship, were *not of the*
 “ *nature of Yellow Fever*, but different diseases, of which
 “ an account was given.

“ It was moreover proved, that no symptom of the Yellow
 “ Fever had appeared in any person on board the Dolphin,
 “ and that consequently, the disease could not have been
 “ introduced by that ship.

“ It was juridically proved also, that the Yellow Fever
 “ had not appeared at the Havannah, whence the Dolphin
 “ sailed in May 1800, until some time after her departure.”

Here, Dr. Bancroft, by way of making the disease very general, and insinuating that it originated from a noxious change in the atmosphere, mentions its prevalence at Tangier and Tetuan, where disease certainly did exist, and where all the European Consuls, with their families, escaped it, by using the same precautions as are generally had recourse to against the plague; which would not have happened, if either the atmosphere or miasmata had had any influence over it.

The ship *Dolphin*, as mentioned by Dr. Bancroft, was *decidedly selected* as the vehicle in which the contagion was imported; and for the truth of it, I refer to the extract from Monsieur Berthe's account of it (pages 79, 80, 81), as well as to the reports *said to be fabricated*, respecting the death of the three sailors from the Yellow Fever during the voyage.

Dr. Bancroft lays some stress upon the sailors going up the Guadalquivir to Seville, *through* St. Lucar, where, he says, the disease did not appear until late in September. This *through* is mentioned with the view of making it appear that those men stopped at St. Lucar on their way up the river, of which, however, Mr. Berthe makes no mention, but, on the contrary, says that they went from Cadiz to Seville by water, and upon their arrival that they lodged in the suburb of Triana, and there produced Yellow Fever, but not *some days before its appearance at*

Cadiz; which last expression Dr. Bancroft has printed in italics.

Monsieur Berthe's words are,—“ La maladie a été portée directement *de Cadiz à Seville par la voie de mer.*”—

With respect to the death of three sailors, which Monsieur Berthe multiplies into nine, it must be acknowledged to be rather an uncommon occurrence for even the smaller number to die on board any merchant vessel.—And if they did die of Yellow Fever, of which there can be very little doubt, it is not very likely that Don Caro should have confessed it, having (if he did) the prospect of a gibbet, or imprisonment for life.

With respect to the last statement, viz. the juridical evidence of the Yellow Fever not having appeared at the Havannah in May; although this may be brought forward in support of the non-importation of disease by the Dolphin, it is certainly a very strong proof against Dr. Bancroft's general doctrine of the disease having existed there at all seasons; for, if by Yellow Fever he means to say, that the Bilious Remittent had not appeared until some time after the departure of the Dolphin in May (and which I think very probable), how will he account for, or what name will he give, to that disease, which I have proved to have existed at all seasons in that climate, viz. in February, at Grenada, where it was first introduced in 1793; in the months of March and April at Martinique, in the 70th

and Queen's Regiments; at Guadaloupe in May, in the 35th Regiment, a few days after its arrival from Europe, and during the three last and three first months of the year at St. Pierre, as mentioned by Dr. Gillespie.

Dr. Bancroft also mentions (p. 470) the prevalence of this disease in the *month of May*, at Charleston, South Carolina, in the year 1792; he says, "a most violent and destructive Yellow Fever appeared there in the *month of May*, though that disease *commonly* does not begin to prevail epidemically in that city till August."

This destructive fever has been mentioned by Dr. Lining, of Charleston, in a Letter to Dr. White, of Edinburgh, whose account of it agrees, in every particular, with the disease which I now call the Bulam Fever:—The following is an Extract of his Letter.

"This fever does not seem to take its origin from any particular constitution of the atmosphere, independant of infectious miasmata; for within these twenty-five years it has only been four times epidemical in this town, viz. in the years 1732, 39, 45, 48, though none of these years (excepting that of 1739, whose summer and autumn were remarkably rainy) were either warmer or more rainy (and some of them less so) than the summers and autumns were in several other years, in which we had not one instance of any person being seized with this fever."

“ But that this is really an infectious disease seems plain,
 “ not only from this, that [almost all the nurses caught it
 “ and died of it, but likewise, as soon as it appeared in
 “ town; it soon invaded new comers, *those who never had*
 “ *the disease before*, and country people when they came to
 “ town, while those who remained in the country escaped it,
 “ as, likewise, did those who *formerly felt its dire effects*,
 “ though they walked about the town, visited the sick in all
 “ the different stadia of the disease, and attended the fune-
 “ rals of those who died of it:—And lastly, whenever the
 “ disease appeared here, it was easily traced to some person
 “ who had lately arrived from the West Indies, where it was
 “ epidemical. There is something very singular in the con-
 “ stitutions of the Negroes, which renders them not liable
 “ to this fever; for though many of them were as much
 “ exposed as the nurses to the infection, yet I never knew
 “ one instance of this fever among them, although they are
 “ equally subject with the white people to the Bilious Fever.”
 Dr. Bancroft next proceeds to Gibraltar.

“ Many stories, he says, contradicting and refuting each
 “ other, were confidently propagated respecting the supposed
 “ introduction, at Gibraltar, of the contagion to which this
 “ was by many attributed in 1804.

“ Among these stories, one derived it from Cadiz, by
 “ means of a Spaniard, named Sancho. Another from
 “ Malaga, by a different Spaniard, named Santos. Others

" designated individuals, with different names, from these
 " places, as having done this mischief. That some persons
 " arrived, and sickened at Gibraltar, after having imbibed
 " the noxious exhalations of Cadiz and Malaga, may be
 " true; and also, that this happened about the time when
 " miasmata, similar to those which had occasioned the
 " epidemic in those cities, were beginning to operate at
 " Gibraltar, may also be true; but this is all that can be
 " said with truth.

" The accounts are almost as contradictory, in regard
 " to the particular time and spot at which the first case
 " or cases of this fever appeared in the town of Gibraltar.

" It appears, however, that the fever began to attract
 " particular notice in several houses near the governor's
 " parade, a little before the middle of September, and soon
 " appeared in so many others, that it was found utterly
 " impossible, as might be expected in an epidemic from
 " such a cause, to trace any sort of connection, in regard
 " to its progress; and though most of my information has
 " been obtained from gentlemen who had believed in the
 " existence of contagion, yet that information warrants me
 " in asserting, that no one fact has been substantiated
 " to prove, that there was a single instance in which the
 " disease had been communicated from one individual to
 " another."

Dr. Bancroft settles this question in a very short way, by disbelieving every thing that has been said concerning it, and talks of *many stories* being propagated, contradicting and refuting each other; but the truth is, that Santo's case was never doubted, the only doubt was, whether another person, who arrived from Malaga nearly about the same time that Santo did from Cadiz, did not also communicate the contagion.

Santo was certainly the first person taken ill in the garrison, and according to his own confession, after his arrival from Cadiz, which place he left on account of the fever prevailing in the very house in which he resided; and whether or not the fact has been substantiated of the disease having been communicated from one individual to another, I must refer my readers to Mr. Kenning's account of it, page 20. I shall, lastly, give Dr. Bancroft's account of the disease at Gibraltar in 1810. At page 485 he says,

“ In the year 1810, a state of weather, similar to that of
 “ 1804, in regard to heat and drought, subsequently to a
 “ very wet spring, occurred at Gibraltar, Cadiz, Cartha-
 “ gena, &c. and re-produced the Yellow Fever at all these
 “ places; but as this state of weather began later, and lasted
 “ a shorter time than in 1804, the disease was not, in many
 “ cases, so violent, nor did it prevail so extensively or so
 “ long as in that year The worst cases at Gibraltar ap-

“ peared in a few transports, upon their arrival from Car-
 “ thagena, where their crews had been exposed to more
 “ virulent Miasmata than those at Gibraltar.

“ In the town of Gibraltar, some persons died of the
 “ Fever in three or four days; but many of the cases were
 “ milder, *and so much like the ordinary Bilious Remittent*,
 “ that some doubted whether it was similar to the fever on
 “ board the transports: others imagined that there were two
 “ sorts of fever in the town; one contagious, and intro-
 “ duced, by some means or channels unknown, from the
 “ transports; and the other, an indigenous Marsh or Bilious
 “ Fever.”

To shew that Dr. Bancroft is never at a loss for an expla-
 nation in favour of Marsh Miasmata, and to prove how in-
 correct he is in his account of the weather at Gibraltar in
 1810, I shall here insert an Extract from a Publication by
 Dr. Burnett, page 137, (a gentleman whose name I shall
 have frequent occasion to mention towards the close of this
 work).

“ On my arrival at Gibraltar, (says Dr. Burnett) in Sep-
 “ tember 1810, 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.”

Here we have Dr. Bancroft, and his disciple, arguing in
 favour of Marsh Miasmata, the one producing it from heat
 and drought, the other from a deluge of rain which con-
 tinued, with thunder and lightning, for three days, without
 ceasing; and with their joint exertions they produce a very
 few cases of fever (but not before the 20th of October); *six*
of them in one family, ten in one barrack room, and only
 two cases within the walls of the town; viz. the Priest who
 attended the Minorcan family, first infected, and the Lady
 who attended Captain Boyd: and it is worthy of notice,
 that in the houses opposite Rosea Bay, where, from Dr.
 Burnett's account, we might have expected such dreadful
 effects from this deluge, not a single case of fever appeared!!
 So that the weather had evidently nothing to do with it, ex-
 cepting its requiring a certain degree of heat for the propa-
 gation of the contagion; neither was the disease milder, nor
 did it begin later, for it prevailed at Carthagera early in

August, and was equally fatal, in proportion to the number attacked, as in 1804. It prevailed on board the transports, in Gibraltar Bay, early in September, where the thermometer is generally two or three degrees lower than on shore; there was no appearance of disease in the garrison until the end of October, which was promptly got rid of, by cutting off communication with the infected, and removing them into an open airy situation.

As a proof that heat, with either a dry or a wet season, has no influence in the creation of this disease, I may here mention, that the annual fall of rain at Gibraltar is, upon an average, thirty inches: in the year 1808, when the thermometer ranged higher than any upon record, (in England as well as in the Mediterranean) only eighteen inches of rain fell; and the quantity of water in the reservoirs was so scanty, as to be unequal to the supply of the inhabitants, who were under the necessity of having recourse to temporary wells on the neutral ground. In the course of another year fifty-four inches of rain fell, yet neither of these extremes produced disease.

What Dr. Bancroft considers as his most decisive evidences in favor of non-contagion, are the following:

First, at page 739. "It is known," he says, "that during the prevalence of this fever (in 1793), an hospital was opened at Bush Hill, near Philadelphia, and appropriated

“ exclusively to the reception of patients ill of it; and it is
 “ also well known, that when the fever *had ceased, as usual,*
 “ *at the approach of winter,* all the bedding, blankets,
 “ clothes, and other effects, which had been used by the
 “ sick, were sold to the agents of the French government,
 “ and employed for their sick soldiers and seamen, without
 “ having been washed, fumigated, or even aired, and with-
 “ out its having been ever suspected that any disease was
 “ produced by these effects.”

Second, at page 423, where he says, “ Besides the uni-
 “ versal exemption of the Physicians at New York from
 “ Yellow Fever, during the epidemic of 1805 (in conse-
 “ quence of their having then learned, in a great degree,
 “ to avoid the spots infested with Marsh Miasmata), Dr.
 “ Miller, in his Report, mentions the dissections of per-
 “ sons who had died of Yellow Fever, which, if the disease
 “ had been contagious, must have proved a source of
 “ danger.”

“ ‘ Many of the Physicians of this city,’ says he, “ were
 “ frequently engaged in this mode of investigating the dis-
 “ ease, and minutely examined bodies in a very advanced
 “ state of putridity; and yet *they all* continued in perfect
 “ health.’ But, besides the dissections here mentioned by
 “ Dr. Miller, it appears that a great number have been
 “ made without harm in other places, and particularly at
 “ Philadelphia: together with many experiments upon the

“ black matter vomited in the last stage of Yellow Fever,
 “ calculated to ascertain whether it possessed any conta-
 “ gious property. Among these may be noticed some very
 “ remarkable ones, lately exhibited by Dr. Ffirth at Phila-
 “ delphia, in the presence of several medical gentlemen of
 “ good characters. After some experiments of less im-
 “ portance, he inoculated himself in the left fore-arm with
 “ the black matter which had been *just before* vomited by
 “ a *moribund* yellow fever patient; a slight inflammation
 “ ensued, which subsided in three days, and the wound
 “ readily healed; he then confined, by a black sticking
 “ plaister, some of the same matter, immediately after its
 “ ejection, over a cut in his right arm, *for two days*, and
 “ then found that it had occasioned no inflammation, the
 “ wound readily healing, without any formation of pus.”

And, *third*, at page 413, “ One fact,” he says, “ which
 “ decidedly proves the Yellow Fever to be destitute of any
 “ contagious power, is that of its never having been com-
 “ municated to others by any one of the many thousands
 “ who, in the West Indies, as well as at Charleston, Nor-
 “ folk, Baltimore, Philadelphia, New York, &c. were re-
 “ moved beyond the *reach of Marsh Miasmata*, whilst
 “ labouring under the disease, or after having imbibed its
 “ poison; though, in many of these, the disease appeared
 “ in its worst forms, and proved mortal. Of the import-
 “ ance, as well as the certainty of this fact, the late Dr.
 “ John Hunter was justly convinced. ‘ What may be con-

“sidered (says he) as an *experimentum crucis*, to prove
 “the non-existence of contagion is, when the sick leave
 “their usual residence, and go to other places which are
 “healthy, without spreading the disease. *This* (he adds)
 “*constantly* happens in the *Remittent Fevers* of the West
 “Indies,’ (among which he includes the Yellow Fever).”

These proofs (as Dr. Bancroft considers them) of non-contagion, certainly at first sight appear rather plausible, and the first must, no doubt, have had great influence upon the minds of such of his readers as were unacquainted with the peculiarities of this disease, particularly that of its being destroyed by cold, which is confirmed by Dr. Bancroft himself, at page 369, mentioning this Fever at Wilmington, he says, “There was a final termination to its
 “progress *by a single frost*.” And at page 362, he says,
 “(at Norfolk, in Virginia), on the 5th of October a deluge
 “of rain fell, accompanied with a powerful sweeping wind
 “from the North East; the mercury fell to 48° on the
 “morning of the 6th, and on the 7th it was as low as
 “42° of Fahrenheit. In a few days after this, *not a*
 “*vestige of Yellow Fever was to be seen*.”

Allowing all this, and allowing still more, that the disease had *actually ceased, as usual, at the approach of winter*, before the bedding in question was sold, there surely can be nothing very singular in this contagion or disease, not attacking Frenchmen, after having ceased its

ravages upon the Americans, or, in fine, after its existence was at an end. It would certainly have been much more wonderful and inexplicable if it had ! I must once more ask Dr. Bancroft what became of the Marsh Poison (upon the sudden appearance of frost), which, we agree with him, lays dormant in the constitution for many months, as was the case, in numberless instances, both of officers and men, after the Walcheren expedition; when a single frost, nor even the whole winter, had not the slightest influence in preventing its appearance, at the distance, in some persons, even of twelve months ?

I am not much inclined to question Dr. Bancroft's authority for the sale and purchase of such contaminated rags from an hospital (however mild the form of disease might have been, that the patients laboured under); but if such an occurrence really did take place, it was certainly a disgrace to civilized society; and in palliation of Mr. Deveze, who is said to have had charge of them, I am more inclined to suppose, that in the heat of argument against contagion, he mentioned the circumstance to Dr. Valentine as possible, (if put to the test,) than to suppose that he, or any other medical man, could be guilty of so disgraceful and disgusting an act towards any class of individuals intrusted to his care.

With respect to the second proof of non-contagion, viz. the exemption of the physicians from the Disease, and the

experiments by inoculation with the Black Vomit, it must be remarked that Dr. Miller's report was made in the year 1805, after the disease had prevailed there several different times, particularly in 1794, 1798, and 1803; and if it had been known to those gentlemen that having had it once, they were not liable to it a second time, they might have saved themselves the trouble of avoiding the spots infested by Marsh Miasmata, which has no influence over this disease, as has been proved before, by its prevailing in places where Marsh Miasmata do not exist, particularly at Cadiz, Gibraltar, and Stoney Hill in Jamaica.

Upon the same principle is the inoculation and other experiments with the Black Vomit to be explained, as it might with equal propriety be said, that the Small Pox is not a contagious disease, because physicians or others by being inoculated, or having recourse to any other experiments (after having had the disease once), enjoy the same immunity from a second attack.

Dr. Bancroft's third and last proof of the non-existence of contagion, so far as it relates to Dr. Hunter's *experimentum crucis*, in *Remittent Fevers*, is acknowledged!!

And if what is advanced respecting the impossibility of exporting the contagion of the Bulam Fever was really so, it would certainly be a very unanswerable argument; but when we have seen such positive proofs to the contrary

(without any reference to the first introduction of the disease into Grenada, as mentioned by Dr. Chisholme) at Philadelphia, Cadiz, and Gibraltar, having traced its direct importation into those different places, and having seen even in the center of contagion that all persons and places that cut off communication escaped it, as was the case with the prisons and alms-houses at Philadelphia, p. 105—the families at Gibraltar, p. 27—the Caracas at Cadiz, p. 91—and the regiment of Maria Louisa, in the neighbourhood of Chiclana, p. 92—but most particularly the village of Algeziras, p. 93 ;—having seen also all the villages, many miles distant from Cadiz and Seville, infected by the fugitives admitted from those two last places, while the villages that cut off communication, and refused them admittance, escaped ; can we doubt for a moment that the contagion is portable ?*

We have indeed two instances mentioned to the contrary, viz. the village of Alcala, in the neighbourhood of Seville, and the neutral ground at Gibraltar. Mr. Berthe men-

* Since writing the above, I have had a conversation with Mr. Elmsly, one of the most respectable merchants in Gibraltar, who informs me, that in 1804 he was attacked with the Epidemic upon its first appearance, and that as soon as he was in a state to be removed, he went on board a prize vessel in the Bay, which was under the care of two men and a boy—and that the two first, although they had never been on shore, caught the disease from him, and both died.

tions that the fugitives from Seville, to the number of eighteen, died in Alcala, without having communicated it to any of the inhabitants ; but he remarks it as one of those solitary and very singular occurrences, of which it is often impossible to give a satisfactory explanation, and ascribes it entirely to the situation of the place, which, although built in a ravine, is elevated with respect to the plains, and open to the North and South winds, by which it enjoys a constant circulation of air.

That the same exemption from disease took place upon the neutral ground at Gibraltar, in 1810, 13, 14, is most certain; and it is to be accounted for upon the same principle of free ventilation ; which constantly prevails there, on account of its situation, with respect to the abrupt elevation of the rock ; against which, if there is only a breath of air, it is increased almost to a gale upon the neutral ground : and the escape from disease upon this airy spot, is only when the sick are accommodated in tents or roomy huts; for in 1804, when they were crowded in sheds established as temporary hospitals, the contagion was equally unsparing of the hospital attendants there as in any other situation. The same takes place on board of ship : when the passengers or crew are not crowded, and that a free circulation of air can be kept up, little is to be apprehended from the disease.

And these few instances, where the existence of contagion may be suspected, weigh very little in the grand scale, and

are only proofs that a *warm and stagnant air* renders this contagion active, while a free ventilation of *cool* air destroys it.

It has been a generally established maxim, that free circulation of air, renders inert all contagions of the volatile kind, and that the *warmer* the air is, the more powerful will be its influence.

This inference is drawn from the known good effects of heat, upon the contagion of typhus, in tropical climates; and has deceived medical men respecting the contagious powers of the Bulam Fever, particularly in the West Indies; where they supposed the heat too great for its existence.

From our experience, however, in this disease in Europe and America, we have discovered, that it differs essentially, in this particular, from typhus; the contagious powers of this last being destroyed by heat, while those of the first are increased by it.

But independent of either heat or cold, a free circulation of air alone, or particular states of the air, have wonderful influence over different contagions. The Bulam Fever, for instance, does not exist in the cool airy situations in the mountains of Jamaica, where the thermometer ranges from 50 to 70°.

The contagion of typhus is condensed or rendered more powerful by states of the air, connected with cold and moisture, and is dissipated and rendered mild by heat and drought—in Bulam Fever it is the reverse !

The ravages committed by typhus in close and ill ventilated apartments, are known to be dreadful ; while little or no danger is to be apprehended from patients labouring under the same disease, when removed to an open airy situation.

Dr. Haygarth has ascertained by experience, that the poison of typhus infects twenty-two out of twenty three persons exposed to it in close dirty small rooms, and that in clean, airy and spacious chambers few, or none, are infected.

But the plague is, perhaps, more fanciful in its choice of a particular atmosphere, than any other disease; it is said to have a dislike for extremes of either heat or cold, and Dr. Russell mentions several instances of its being carried to places where (for a time at least) it lost its powers of propagation:—at page 3d he observes, “ That in the month
“ of April, 1759, a Turkish vessel, from Alexandria, was
“ wrecked on the island of Cyprus, and that a great part
“ of the crew who were saved happened to be infected with
“ the plague; that the contagion was spread with great

“ rapidity to the towns and villages ; but the town of Lar-
 “ nica, he says, at this period was remarkable. It had
 “ received a part of the infected crew, and had maintained
 “ a constant intercourse with the infected quarters of the
 “ island—peasants and mule drivers from those parts, with
 “ the pestilential sores on their bodies, were daily in the
 “ streets and markets, and some of them died in the houses
 “ of Larnica: two vessels also arrived, both of which landed
 “ infected passengers and sailors. Notwithstanding this new
 “ importation, none of the inhabitants of Larnica were
 “ known to have contracted the plague, although it suffered
 “ severely from it the following year, in the months of
 “ February and March, when few or none of the infected
 “ recovered. The daily funerals were from twenty-five to
 “ thirty, and many of the inhabitants fled to the moun-
 “ tains.”

He also observes, page 26, “ So far is certain, that
 “ although infected persons came from the mountains to the
 “ three towns just mentioned, (Antioch, Shogre, and
 “ Edlib) and some of them died in the families where they
 “ lodged, yet the distemper, by such means, was not pro-
 “ pagated ; as if divested of that contagious property in
 “ the plains, which it seemed to retain undiminished in the
 “ mountains.” And at page 61, “ That the villages ap-
 “ peared to suffer in a singular degree, owing, perhaps, to
 “ the structure of the huts and cottages, which are small,
 “ with few or no windows, and stand crowded together.

This effect of air and situation upon contagious diseases, has led many physicians to doubt the existence of contagion even in the plague: among this number were Dr. White, Physician to the Army in Egypt, and Dr. Mc Adam, at Malta, who both fell victims to their opinion; and should an opportunity offer for Dr. Adams, of London, (who lately published upon the non-contagion of plague) to attempt the proof of his theory by experience, he would, in all probability, share the same fate.

Having said this much, I beg to call Dr. Bancroft's attention to the high encomiums which he has passed upon Dr. Rush, for having read his recantation with respect to his opinions of contagion, and I trust that he will give some little credit to the converts on the other side of the question. I have already mentioned that in 1804, as appears by Sir Thomas Trigge's public Letter, p. 23, that the Medical Gentlemen at Gibraltar, with one exception, were of opinion, that at the commencement of the disease it was neither malignant nor contagious.

I must also call Dr. Bancroft's recollection to the breaking out of the disease at Cadiz, in the year 1800, when, if my memory does not fail me, he was at Gibraltar, and, as well as myself, a Member of a Medical Board, assembled by order of General O'Hara, for the purpose of giving an opinion respecting the contagion or non-contagion of the

fever at Cadiz, an account of which had been transmitted by the Governor of that place.

The Spanish Faculty were, I believe, unanimous *at its first appearance* that it was non-contagious, but that it proceeded from a combination of causes, viz. the choking up of the drains, long prevailing east winds, &c. (*Marsh Miasmata were not suspected, because they did not exist*): they however, like the Faculty of Gibraltar, soon renounced their opinion; and as Dr. Bancroft observes, page 451, “The Physicians of Cadiz, as those of other places, have often done, soon lost sight of *Marsh Miasmata*, or rather ascribed these effects to a supposed contagion extending from the bodies of the sick to the well: they observed, says Arejula, “That the person nearest the sick was commonly the first attacked with the disorder, and that if it got into a house, all had it in a few days; that it proceeded from one to the next house, and thus extended the length of a street.” This, Dr. Bancroft says, they considered as a decisive proof of contagion!! and was it not so? If the conviction of one man, viz. Dr. Rush, is to have any influence upon the opinion of others, what effect are we to expect from this so general, and, I may say, unanimous conviction of the medical men at Gibraltar and Cadiz, who, as well as Dr. Rush, changed their opinions, not precipitately or capriciously, but with slow and cautious deliberation, and in direct opposition to the impulse of their first prejudices.

To shew what reliance is to be placed upon medical opinions, even of those who are highest in the estimation of Dr. Bancroft, I shall here make some quotations from Dr. Rush's account of the Yellow Fever at Philadelphia.

Page 99, vol. iii.—“ There was great mortality in all
 “ those families who lived in wooden houses, whether this
 “ arose from the small size of these houses, or from the
 “ *contagion* becoming more accumulated by adhering to
 “ the wood, I am unable to determine.”

Page 100.—“ Many people, who were infected in the
 “ city, were attacked by the disease in the country; but
 “ they propagated it *in very few* instances.”

Page 101.—“ Several families, who shut up their front
 “ and back doors and windows, and avoided going out of
 “ their houses, except to procure provisions, *escaped the*
 “ *disorder.*”

Page 104.—“ The more narrow the street, the more cer-
 “ tainly the *contagion* infected: few escaped in alleys.
 “ After the 12th of September the atmosphere of every
 “ street in the city was *loaded with contagion.*”

Page 107.—“ Citizens thus impregnated with *contagion*,
 “ *communicated it in several instances* to their country
 “ friends.

“ The smell of the contagion, as emitted from a patient
 “ in a clean room, was like that of the small-pox; but in
 “ most cases, of a less disagreeable nature. The conta-
 “ gion adhered to all kinds of clothing, and seemed to be
 “ propagated by them.”

Page 41, vol. v.—“ One of my patients, who was under
 “ a salivation, washed his mouth with milk, and discharged
 “ it into a bason. Two cats licked up part of this milk;
 “ they both sickened immediately with the symptoms of
 “ fever—one of them died on the fourth, and the other on
 “ the seventh day afterwards.

Page 122, vol. 3d, he says, “ The first reports of the
 “ existence of this fever were treated with neglect or con-
 “ tempt: a strange apathy pervaded all classes of people,
 “ while I bore my share of reproach for *terrifying our*
 “ *citizens with imaginary danger*; I answered it by
 “ lamenting that they were not terrified enough. The pub-
 “ lication of the College of Physicians soon dissipated this
 “ indifference and incredulity, fear and terror now sat
 “ upon every countenance—the disease appeared in many
 “ parts of the town remote from the spot where it ori-
 “ ginated, *although, in every instance, it was easily traced*
 “ *to it.*”

Page 123, “ The contagion, after the second week in

“ September, spared no rank of citizens. At one time
 “ there were only three physicians, who were able to do
 “ business out of their houses, and at this time there were,
 “ probably, not less than six thousand persons ill with the
 “ fever.*

Page 163.—“ I am far from denying that this disease
 “ has not *sometimes been imported into our country*— I
 “ am disposed, however, to believe that the instances of
 “ Yellow Fever being imported are very few, compared
 “ with those of its being generated in our country.”

After all these proofs of contagion advanced by Dr. Rush himself, I am at a loss to conceive what the effect will be upon the minds of my readers, or how they will attempt to account for his change of opinion and recantation, which Dr. Bancroft gives in the following words :—

“ He begs *forgiveness* of the friends of science and hu-
 “ manity, if the publication of that opinion has had any
 “ influence in increasing the *misery* and *mortality* attend-
 “ ant upon that disease. Indeed, such is the *pain* he

* So that the Physicians having suffered so severely this year (being liable to only one attack of the disease), might, with great safety, perform the experiments referred to at page 194.

“ feels, in recollecting that he ever entertained or propagated it, that it will long, and, perhaps, always deprive him of the pleasure he might otherwise have derived, from a review of his attempts to fulfil the public duties of his situation.”

To myself, however, the explanation is not difficult, for it is evident that in the year 1794, he mistook the Bilious Remittent for the Bulam Fever.

In describing the disease of this last year—at page 45, vol. iv. he says, “ It appeared most frequently in the form of a *Remittent*. The exacerbations occurred most commonly in the evening; in some there were exacerbations in the morning as well as in the evening; but I met with several patients who appeared to be better and worse half a dozen times a day. In each of these cases there were evident *remissions and exacerbations* of the Fever.”

And at page 78, vol. iii.—“ In every case of this disorder which came within my notice, there were evident *remissions or intermissions* of the Fever. It generally ended in a *Remittent* before it destroyed the patient.”

Page 82.—“ The Fever continued for fifteen, twenty, and even thirty days in some people.”

Page 36, vol. v.—“ During the prevalence of the Fever
 “ (1797), I attended the following persons who had been
 “ affected by the Epidemic of 1793, viz. Dr. Physick (and
 “ five others, whose names are mentioned).”

From the remissions and exacerbations described by Dr. Rush, there can be no doubt that the cases in which they occurred were not the Bulam Fever; and from the topographical history of Philadelphia, it is most probable that its neighbourhood is annually visited with Marsh Fevers, with which the inhabitants are *frequently* attacked; which I have clearly proved is not the case with Bulam Fever—this last disease attacking the human frame but once; and although Dr. Rush denies this fact, it is evident from his own declaration, that he only met with six persons attacked by it in 1797, who had had it in 1793. He acknowledges also,—

Page 3, vol. iii. “ That he met with five persons during
 “ the prevalence of the disease who had had it formerly,
 “ two of them in the year 1741, and three in 1782,
 “ *who escaped it in 1793*, although they were all, more or
 “ less, exposed to the contagion.”

And at page 94, he says, “ All the refugees from the
 “ French West Indies escaped it, which was not the case
 “ with the natives of France, who had been settled in
 “ the city!”

That there were great doubts with respect to the nature of the Fever which raged at Philadelphia in 1794, is confirmed by a paragraph in page 73, vol. iv. of his own work. He says, "Notwithstanding the numerous proofs of the prevalence of the Yellow Fever in Philadelphia, in the year 1794, which have been mentioned; there are many thousands of our citizens, and a majority of our physicians, who do not believe that a case of it existed at that time in the city; nor is a single record of it to be met with in any of our newspapers or other public documents of that year. Let us learn from this fact, that the denial of events, or a general silence upon the subject of them, is no refutation of the truth, where they oppose the pride or interests of the learned or great."

From the foregoing quotations from Dr. Rush, it is impossible to doubt the contagious powers of the Bulam Fever; his opinion has evidently been changed, either in consequence of his having confounded it with the Bilious Remittent, or from seeing persons who had had it in former years, exposed to the contagion without suffering from it, not being aware of their immunity from a second attack; and as he has not been able to trace more than six cases of a second infection, out of the many thousand persons who underwent the disease at Philadelphia, I do not think it unreasonable to suppose, that the same mistake was made with respect to the nature of their disease (taking into consideration

the situation of the town, where Dr. Bancroft says Marsh Fevers are as likely to be generated as at Walcheren); and that from his observations he may be brought forward as an evidence in support of the disease attacking the constitution but once, as certainly as the Small Pox; for if he was to make enquiry, I doubt not but in the city of Philadelphia, he would find nearly an equal number of persons who have been supposed to have had a second attack of this last disease.

Knowing the effect which Dr. Bancroft's arguments have had upon the profession, I have thought it necessary thus far to enter into a review of the sources from which he has drawn his inferences; and having explained them upon different principles, (which I have been the better enabled to do, not only from my experience in the disease itself, but from my local knowledge of the West Indies, and of most of the places where it has prevailed in Spain); I trust that my readers will be convinced that his attempt to establish his theory of the Causus, Ardent Bilious, or Bulam Fever, being only an aggravated degree of the Bilious Remittent, originating from Marsh Miasmata, has completely failed, and that his perseverance in this controversy is a proof, how far the mind may be influenced even to the exclusion of plainly demonstrable truths, in endeavouring to establish a favourite hypothesis; to effect which, he has exaggerated the importance of his own arguments, and neglected or disbelieved every fact which has been adduced by others.

The variety of opinions, not only with respect to the nature of what I call the Bulam Fever, but with respect to the very different methods adopted in its cure, are strong reasons for believing in the existence of two distinct diseases; and from what I have advanced in the course of this work, I hope I do not say too much when I assert that I have established them.

The one, of foreign origin, contagious, attacking the human frame but once, and capable of naturalizing itself in any permanently warm climate (at least for such time as it can be supplied with subjects susceptible of its influence); but, fortunately, only a visitor in Europe, or on the continent of America, where the cold of winter is sufficient to destroy it.

The other, the Bilious Remitting Fever, the endemic of all marshy situations in warm climates, at particular seasons of the year; differing from the first in not being contagious, attacking the human frame repeatedly, and having very little respect for the white or even black natives of a warm climate.

Bizoton, in St. Domingo, is a strong proof of what I advance respecting this last disease. Dr. Jackson mentions, page 71, "That at this post, a party of the 7th West India Regiment, consisting of seventeen men and four officers, the greatest part of them, in some degree, inured

“ to a Tropical climate, experienced severe attacks of
 “ Fever (one man excepted) in a residence of less than a
 “ month; nay, further,” he says, “ the black troops who
 “ succeeded the British in the duty of the fortress, suf-
 “ fered, and continued to suffer, considerably; and of the
 “ Creole French officers, several have been extremely ill,
 “ and some have actually died.—The form of this Fever (he
 “ says), is most usually Double Tertian.”

At page 81, he says, “ This Endemic is often so severe
 “ among the inhabitants, particularly in a certain quarter
 “ of the town, during the months of July and August, as
 “ to bear the name of Epidemic!”

The prevalence of this Remitting Fever at this season of the year only, marks decidedly a distinct disease, originating from a known cause; as the existence of the other disease (the Bulam Fever) has been proved at all seasons in the West Indies, even in what are reckoned the most healthy situations, and where Marsh Miasmata do not exist. It is not however surprising, that during the prevalence of both diseases in swampy situations, they should have been confounded; and that the constitutions of many persons, from having been exposed to the Contagious and Marsh Poisons at the same time, might have imbibed them both, as has frequently happened with the contagions of Small Pox and Measles; which, from the established laws of nature, not being allowed to shew themselves, or to exist at the

same time in form of disease ; it is not only possible, but extremely probable, that they shewed themselves, in succession; the Bulam Fever apparently terminating in Remitting or Intermitting Fever, and *vice versa* ; the occurrence of which circumstance has confirmed the advocates for non-contagion, and persons not acquainted with the two diseases, in the mistake of their being actually one.

This was evidently the case at the Post of Mirebalais, in St. Domingo, mentioned by Dr. Jackson, where two hundred and ninety, out of three hundred men, of the 82d regiment, died between the months of April and September; the same has, I believe, frequently happened at other places, during the autumn months, particularly at Fort Royal, Martinique, during the residence of Dr. Gillespie; but when I first saw the disease there in May, no such occurrence ever took place.

From all that I have seen of the Bulam Fever, I am inclined to think, that it bears a much nearer resemblance to Scarlet Fever, (when under the form of Scarlatina Anginosa) than to Remitting or Intermitting Fevers : this conclusion is drawn from its having appeared at uncertain intervals, not only in the West Indies, but on the coast of America, and the shores of the Mediterranean ; from its attacking the human frame but once ; from its being attended with a peculiar inflammation of the internal coat of the stomach ; having a tendency to run into gangrene, or other state of

disease; from its prevailing in places free from Marsh Miasmata; from its not having any remissions or repetition of paroxysms; and from its never having appeared in the East Indies, nor in many other warm climates, where the joint influence of Marsh Miasmata, and a sufficiently heated atmosphere, constantly exist, and produce fevers of a very different type.

From what I have said in the foregoing pages, it will appear evident, (and I wish it to be impressed upon the minds of Surgeons of the Navy and Army) that by the establishment of certain regulations and precautions, this disease may, at all times, be prevented or cut short in Europe, and that much may be done with the same view, even in the West Indies. My chief allusion, however, is to the summer season in Europe, for that is the time that it must be carefully watched, on the shores of the Mediterranean, and its islands, particularly Malta, (as I understand it is in agitation to open a direct trade between that island and the West Indies); where, if it should unfortunately be introduced, I am confident it would destroy more persons in a week, than the plague did in a year.

The same precautions, however, are not necessary against it in the winter or spring, for, from experience we know, that a moderate degree of cold destroys it, and that ships, having the disease on board when sailing from the West Indies, generally get rid of it soon after entering the cool latitudes.

The success of the arrangements which I made at Gibraltar, with the view of checking its progress, in 1804 and 1810, are proofs of what may be done, even after the disease has gained considerable ground.

During the two last years that I have been in England, I have had the honor of being consulted in matters relating to Quarantine, by the Committee of his Majesty's Council for the Affairs of Trade, and I have invariably given it as my opinion, that no danger is to be incurred from the importation of this disease into England, excepting for a short time during the summer, and even then, under a combination of circumstances; viz. a ship arriving from Spain, or the West Indies, with the disease actually on board, or having had it on board during a short voyage.

The Quarantine in England against this disease, during and after its prevalence in Spain in 1804, was strictly the same as that established against the Plague, both with respect to passengers and goods: this, however, in consequence of my representation, has been altered, and has saved a considerable expence to Government, as well as a great delay and inconvenience to the mercantile interest; and I am of opinion, that in this climate, even a short Quarantine is very seldom necessary, on account of the passengers, and that it is never necessary for the goods to undergo that system of purification against the Bulam Fever, which is so requisite against the Plague.

Even in a warm climate, I look upon a very short Quarantine as necessary against this disease, as experience tells us, that the poison remains dormant, in the system, only a very few days; but at Gibraltar I always thought it necessary, even after the expiration of Quarantine, for the bedding and apparel (belonging to persons arriving from places where the disease prevailed) to be dipt in water before being allowed to be carried on shore.

It is not my intention to enter into a detail of Quarantine regulations, but I cannot help remarking, that when suspicious circumstances make it necessary to call forth exertion, it ought to be done promptly and decidedly; no time ought to be lost in waiting for the assembly and deliberation of a Board of Health, which, at this moment, ought to consist of the officer commanding, and the principal medical officer; (I speak of a garrison town, such as Valetta in Malta, or Gibraltar.) No favour or affection ought to be shown to any class of individuals; the family, sick and well, and every person who had been known to visit them after the commencement of disease, (*who had not had it before*) ought to be removed to an open airy situation, (where we know the disease will perish) and there be kept in Quarantine. I look upon it as absolutely necessary to remove them from the streets of a town, particularly one situated like that of Gibraltar, which, during the prevalence of a mild east wind, is sheltered from the breeze; by which the contagion is allowed to accumulate in the apartments, and in a

highly concentrated state; (from the ventilation which is occasioned even by the opening of a door), finds its way into the streets, and is communicated to persons passing, in the same way as, I believe, very frequently happens from Small-pox, Measles, and Scarlet Fever.

From what I have said it will appear, that the same precautions which are used against plague, will not prove successful against this disease. A centinel at the door of a pest-house, in the centre of the town, may be safe against the plague, which is communicated only by contact, or by very near approach; while he may be infected by the Bulam Fever *in a close and warm atmosphere*, at the distance, perhaps, of several yards; and *in an open airy situation*, persons may approach a patient in the same disease, perhaps even to contact, with very little or no danger.

In the foregoing pages it appears that the Bulam Fever is a disease *sui generis*, differing from all others, and deserving some distinguishing Nosological name; produced by a specific contagion, which, when taken into the system, (whether by the lungs, stomach, or skin), carries on its work of assimilation until about the fourth day, when (with high fever), it exerts its influence upon the villous coat of the stomach, in the form of erysipelatous inflammation, which, in mild cases, terminates favourably on the first or second day, ~~by~~ what may be called Resolution; and in bad cases, from the second to the fifth day in Gangrene, or

such other disease, as occasions the destruction of vitality in the part affected.

The peculiar and violent head-ach, with the drunken appearance of the eye, are evidently the consequence of the intimate sympathy existing between the brain and stomach; and I have heard more than one patient, among the Irish soldiery, compare their sensations to those produced by an over-dose of whiskey punch.

Although the organization of the abdominal viscera is rarely affected in this fever; the functions of all of them, particularly of the liver and kidneys, are frequently destroyed, there being, for some time before the termination of the majority of fatal cases, no secretion of either bile or urine.

That the seat of this disease is in the villous coat of the stomach, is ascertained by the reports of all authors, of the morbid appearances upon dissection.

Dr. Bancroft says, page 16,—“ There is great reason to
“ believe, both from the symptoms, and from the frequent
“ examinations which have been made after death, that
“ most of those who die of the Yellow Fever, are destroyed
“ in consequence of some irreparable injury having oc-
“ curred either in the brain, or in the stomach. In some
“ cases, almost the whole inner surface was inflamed; very

“ often portions of the villous coat were abraded, and not
 “ unfrequently observed floating among the contents of that
 “ viscus.”

Dr. Rush, vol. iii. page 116, says,—“ The stomach was
 “ inflamed both on its outside and inside; its villous coat,
 “ like that of the duodenum, was covered with fuzzy and
 “ slimy matter; it moreover appeared to be distended or
 “ swelled: this peculiarity in the inner coat of the stomach
 “ was universal in all the bodies that were opened of per-
 “ sons who died of this disease.”

The following is an extract from a report of several dis-
 sections by Drs. Physick and Cathrall, during the Epide-
 mic of 1793 at Philadelphia.

“ 1.—The brain, in all its parts, have been found in a
 “ natural condition.

“ 2.—The viscera of the thorax are perfectly sound.

“ 3.—The stomach, and beginning of the duodenum,
 “ are the parts that appear most diseased. In two per-
 “ sons, who died on the fifth day, the villous membrane
 “ of the stomach was found highly inflamed; the inflam-
 “ mation was exactly similar to that induced in the stomach
 “ by acrid poisons,—as by arsenic, which we have once
 “ had an opportunity of seeing in a person destroyed by it.”

The dissection at Cadiz by the Spanish Physicians confirm the same. Monsieur Berthe says,—“ En examinant
 “ l'estomac, on y decouvrait les traces d'une phlogose ré-
 “ cente qui avait été suivie d'erosion de la membrane
 “ interne de ce viscère: il était même quelquefois gan-
 “ grené.”

The same has been universally observed in the West Indies, and at Gibraltar, every time that disease prevailed there.

A variety of opinions have prevailed respecting the nature of the black vomit, which has generally been considered a morbid secretion from the liver or stomach: I am, however, convinced, that it is blood in a dissolved state, poured forth from the small vessels, abraded by the separation or disease of the villous coat, and acted upon by the gastric fluid. This appears the more probable, as upon dissection, we find numerous small black spots, apparently the mouths of blood vessels, in the different parts of the cavity of the stomach where disease has taken place.

The following circumstance may, perhaps, throw some light upon this subject.

In the year 1806 I had the misfortune to suffer severely from profuse hæmorrhage in the fauces, in consequence of the erosion of a considerable branch of the carotid

artery; at which time Mr. Knight, late Inspector-General of Hospitals, was kind enough to visit me, and to endeavour to check it by the application of Spt: Terebinth: in which attempt I swallowed so much of the turpentine and blood, as to create immediate sickness at stomach, with vomiting; and I recollect being struck with the resemblance which the blood ejected bore to the black vomit in the Bulam Fever.

This hæmorrhage had been so profuse for three days, that it was in contemplation to take up the carotid artery itself; which operation was fortunately rendered unnecessary, in consequence of the application of lunar caustic to the bleeding orifice.

Authors have in general supposed the Bulam Fever to be only a higher grade of the Bilious Remittent, as this last is of the Intermittent; and the following eight points have been *enumerated* by Dr. Pinckard as a proof of *their identity*; to which *eight points* I beg to make the following replies.

1st, he says,—“ They run
“ indiscriminately into each
“ other. A Quotidian, or a
“ Remittent, sometimes be-
“ comes a malignant Yellow
“ Fever; and a Yellow Fever

1st. This may happen in
marshy situations, during the
autumn months, when per-
sons are exposed to, and have
imbibed the poison of both
diseases. The Bulam Fever

“ sometimes degenerating in-
 “ to a Remittent or Intermit-
 “ tent.”

2d. “ They all seem to
 “ be connected with a de-
 “ rangement of the biliary
 “ system; and a common se-
 “ quel of each is a chronic
 “ affection of the liver.”

3d. “ They all prevail most
 “ extensively at the same pe-
 “ riod of the year, viz. the
 “ *decline of the wet season.*”

is not confined to any season,
 as the Marsh Fever is; nor
 was there any instance of the
 one disease changing into the
 other, at Cadiz, or Gibralt-
 ar.

2d. Out of many hundred
 cases which I have seen of
 this disease, I never met with
 one chronic affection of the
 liver as a sequel. Of this
 the returns of sick at Gibralt-
 ar for January, 1805, (page
 42), and for December, 1813,
 14, are convincing proofs.*

3d. The Bulam Fever, I
 have proved, may exist at all
 seasons of the year in the West
 Indies. In Europe it gene-
 rally begins towards the de-
 cline of the *dry* season, and
 terminates in December.

* The returns for the two last periods will be given at a fu-
 ture part of the Work.

4th. " A bilious vomiting
" is common to them all."

5th. " They are all occa-
" sionally attended with yel-
" lowness of the skin."

6th. " In their relapses,
" and frequently in their first
" attack, they all bear a close
" alliance with lunar peri-
" ods."

7th. " The Intermittent,
" Remittent, and the Con-
" tinued Type (or more ma-
" lignant fever), is assumed
" according to the state of

4th. In the Remittent, bi-
lious vomitings are frequent
with every paroxysm, even
after the disease has been of
some days duration ; but it is
seldom that they appear after
the first twelve hours in the
Bulam Fever.

5th. This symptom is com-
mon to all fevers in all warm
climates.

6th. Relapses are frequent
in the Bilious Remittent ;
but I cannot call to my
recollection one relapse in the
Bulam Fever ; and whatever
alliance Marsh Fevers may
have with lunar periods, the
Bulam is certainly quite inde-
pendent of them.

7th. By referring to the
letters of Dr. Gordon, Dr.
Franklin, and Dr. Bishopp
(pages 115, 116, 118,) it will
appear, that before 1793, the

“ vigour, the period of residence in the climate, and other circumstances of the subject attacked.”

8th. “They all occasionally affect the same person various times.”

prevailing diseases among the troops were Remitting and Intermitting Fevers; when, according to this 7th article, they ought, from their state of vigour, and short period of residence, to have been attacked with the fever in its most malignant form. This, however, did not happen until after a residence of three or four years, when the contagion was imported to the islands, and when their vigour might have been supposed to be pretty well expended.

8th. Marsh Fevers, without doubt, repeat their attacks, but the Bulam never! From what has been observed respecting the 54th Regiment at Jamaica, and the occurrences at Gibraltar, and other places in Spain, this is ascertained to a certainty, as well as its powers of contagion.

Having gone so far with the view of establishing the proper character of this disease, and counteracting the mischiefs which were likely to have happened in various parts of the world, from the doubts which prevailed with respect to its contagious powers; it was my intention next to take a view of a late publication upon Mediterranean Fever, by Dr. Burnett, Physician to the Fleet.

I shall, however, in the first place, give a short account of the symptoms and treatment of the Bulam Fever, as it has fallen under my own observation.

This disease, like Scarlet Fever, has appeared at different times in a variety of forms and degrees of malignity. It has generally been acknowledged that the higher the degree of heat, and the closer the situation, or more stagnant the air, the greater has been its virulence; on this account it is a much more terrible disease in the West Indies than in Europe: like Small-pox also, it shews a wonderful predilection for particular constitutions, attacking some in a very mild, and others in a highly aggravated form. This peculiarity was very remarkable at Gibraltar in 1804, where, in some instances, whole families fell victims to it, while others, equally numerous, (under the same treatment) escaped with only a slight attack. The same took place at Seville, in the family of the Lebrones, (as mentioned at page 84)—and at Cadiz, in the mercantile house from Ham-

burgh, (page 99) which lost thirteen out of fourteen members of the family.

As far as my experience went, it seemed to attack in four different forms.

In the *first*, or mild form, it generally makes its appearance with languor, and slight chills, soon followed with heat of skin—quick and full pulse—uneasiness in the loins—severe head-ach, confined chiefly to the orbits and forehead—the eye has a peculiar shining or drunken appearance—the pulse is quick—the tongue furred, but moist, with little thirst—the skin dry—frequently sickness at stomach, with a sense of uneasiness, not amounting to pain, in the epigastric region, and a sensation of rawness or slight inflammation in the fauces and along the course of the œsophagus. These symptoms continue from twelve to twenty-four hours, when the patient, after having taken no other medicine than perhaps a brisk purgative, and sometimes (particularly soldiers when attacked soon after dinner) a gentle emetic, such as a glass of tepid water or weak camomile tea, falls into a sleep, from which he awakes in a gentle perspiration, free from pain and fever, complaining only of debility, from which he rapidly recovers.

In the *second form*, the patient is attacked more suddenly, and the symptoms run much higher: what was only

languor or a slight chill in the mild form, is increased to shivering or rigors—the head-ach, which is confined to the orbits and forehead, as in the first form, is excruciating—the patient also complains much of pain in the loins and calves of the legs—the face is flushed—the eyes are glassy, and appear slightly inflamed—the skin is burning hot—the tongue in general furred, but moist, with little thirst—in a few hours uneasiness of stomach comes on, with nausea and vomiting—severe pain in the epigastric region, with the sensation of rawness or inflammation in the course of the œsophagus and fauces—great anxiety—restlessness and painful watching, with a most anxious desire to sleep—the urine dark coloured and small in quantity, and constipation of the bowels. All which symptoms, from the early and repeated administration of strong purgatives, whether Calomel combined with Rhubarb or Jalap—Magnes: Vitriolat:—Cream of Tartar in form of Electuary—Ol: Ricini, or Infusion of Senna (I generally prescribed those least disagreeable to the patient), assisted with Laxative Clysters every hour, if necessary—cool air and drinks the Saline Julep ad Libitum—sponging the surface of the body with Vinegar and Water—Blisters to the forehead and region of the stomach; generally give way about the second or third day, by the patient falling into a sleep, from which he awakes greatly refreshed, with a moist skin, and nearly free from pain and fever, complaining, as in the first form of disease, of debility only; from which, although it is much greater in degree, the recovery is also wonderfully rapid.

In this form of attack, however, this relief from pain and apparent convalescence is often of very short duration; for, in many cases, the patient in a few hours begins to be troubled with flatus of the stomach, and distressing hiccough, and is suddenly and unexpectedly seized with faintness, sickness, and painful retchings, followed by vomiting at first, of whatever had been taken as food or drink, and very soon after by a brownish fluid, resembling dirty water, mixed with a dark coloured fleaky matter, which floats upon its surface; and, at last, by a matter resembling coffee grounds, or thin pitch. At this time also a great change takes place in the countenance, which assumes a putrid or dingy appearance, particularly with those who in health had a florid complexion; a light yellow or lemon tinge shews itself under the eyes and ears, which soon spreads to the neck and over the whole body—the vessels of the eyes appear relaxed and distended with blood—the quantity of fluid ejected, in most cases, wonderfully exceeds the quantity drank; indeed all the fluids in the body seem to be pouring into the cavity of the stomach; for when it has to all appearance been emptied several times, and the patient thinks himself relieved from any further painful straining, he is in the course of a few minutes, without having tasted drink, under the necessity of again having recourse to the bason. The vomiting, in the latter hours of the disease, is attended with a peculiar loud and hollow noise, which is heard at a great distance, and is a most painful and distressing

sound, (particularly in camp,) to those who are aware of the sufferings of the patient.

During this state of misery, the patient is sensible to surrounding objects as well as of his fate; most restless, tossing about the bed; with the highest degree of despondency painted in his countenance, looking anxiously round upon his friends, as if asking relief, but unable to express his wants; when worn out with fatigue, in hopes of rest, he closes his eyes for ever, and often without a struggle.

This second attack, *paroxysm*, or *exacerbation*, as it has been called, is evidently the consequence of gangrene, or a diseased state of the villous coat of the stomach, without fever, and terminates in death from the 5th to the 7th day. There are very rare instances of recovery from this state of disease, when good nursing is of more consequence than all the medicine in the *Materia Medica*. The patient requires to be fed by tea-spoonfuls of whatever is most agreeable, or that his fancy dictates. I have known several patients recover who had been supported for some days by nourishing injections only, the stomach being so delicate as to loath or not retain the most delicate food that could be mentioned. I have also known several patients fancy and eat with relish a raw onion, when the mention of the greatest luxury made them sick. In this delicate and diseased state of the stomach, the smallest exertion on the part of the patient is apt to induce faintness, which

when it does occur, is generally succeeded by vomiting, which it is difficult or impossible to allay; he ought not, therefore, (however anxious he may be to get up) to be allowed so much as to sit up in bed; and when he wishes even to turn round or change position, it ought to be done slowly and with assistance. In the treatment of this disease, every thing depends upon the early action of medicine upon the bowels, which must be kept open during the course of the disease; and in no complaint are laxative injections so remarkably useful.

To alleviate symptoms, blisters, effervescing draughts, nitrous and vitriolic æther, the mineral acids, punch, hock, and champagne, the warm bath and tepid sponging are, according to circumstances, had recourse to. In very warm weather, sprinkling the room frequently with water, and hanging up moistened sheets or blankets in the current of air, create an agreeable sensation of cold. After the febrile symptoms have disappeared, recourse is generally had to tonics; among which bark is the first in use, although, I must confess, that I have very little opinion of it as a medicine: patients, from being indulged, in moderation, with whatever struck their fancy, recovered rapidly: white fish, such as soles, and fresh eggs, boiled not longer than two minutes, with bottled brown stout, or East India porter, were what I generally recommended during the first days of convalescence, and I found it more necessary to regulate my patients in the quantity than the

quality of their food. I recommended them to eat little, and often, and their rapid convalescence was wonderful, without any remains or appearance of disease; excepting in those cases where the internal coat of the stomach seemed to have suffered; and several of them complained, for some time afterwards, of dyspeptic symptoms.

The third form, is an aggravation of all the symptoms of the second, from the moment of attack; the sickness at stomach, hiccough and black vomiting, come on much earlier; the face is much more flushed, and the heat of the skin is greater. This form of disease is also frequently attended, at an early stage, with violent delirium—hæmorrhages also make their appearance very early from the nose, mouth, eyes, and ears; the kidneys lose all action, there being rarely any secretion of urine; the countenance changes to a livid hue, with yellowness of skin; and the patient is carried off, frequently on the second, but generally on the third day, very often in convulsions.

The fourth form, although not so violent in its symptoms as the third, is equally fatal in its termination: it attacks in a much more insidious manner, the patient complaining, for several hours, of nothing but languor, which is followed by chilliness and rigour, with pains in the loins and calves of the legs: the head-ach is not so severe; the pulse is small and very quick; heat of skin very little augmented; but there is great anxiety and oppression at the præcordia, with an

indifference to surrounding objects: the bowels are obstinately constipated; no secretion of urine from the first attack; the tongue is often unnaturally clean, and of a clear shining vermilion colour: hæmorrhage shews itself very early from the gums and nose, with petechiæ and verbices; little thirst, but great irritability of stomach, with hiccough and black vomiting, attended frequently with an involuntary discharge of the same appearance, from the bowels, towards the close of the disease; when the peculiar change of countenance, with yellow skin, takes place, attended with low muttering delirium; and death very often closes the scene before the termination of the third day.

I wish I could point out any method of treatment, by which there might be even a probability of relieving the symptoms in the two last forms of disease. It is true that they laugh to scorn all the efforts of medicine!!—and certainly if purgatives do not produce some effect in a few hours after the first attack, there is little hope of a favorable termination. The contagious poison in the two last forms of disease seems, like a strong dose of arsenic, to have inflicted an incurable wound, first, on the villous coat of the stomach, and afterwards (from the great sympathy of this viscous with the brain,) upon the whole system.

From the violence of the symptoms in the third form, benefit might be expected to be derived from blood-letting, but fatal experience has convinced us of the contrary. At

a future part of this work, I shall have an opportunity of entering more at large upon this head.

If the change of opinion of Dr. Jackson, with respect to the nature of this disease, or of Dr. Rush, with respect to its contagious properties, be thought singular or unaccountable; what must we think of a late publication by Dr. Burnett, Physician to the Fleet in the Mediterranean, who, while cruizing off Toulon, takes up his pen, and coolly informs the public, that he intends removing the obscurity in which the Fever of Gibraltar has hitherto been enveloped; the attempt at which, he acknowledges, has been attended with *many insurmountable difficulties*; which might have been expected, when it is taken into consideration that he never saw the disease. If he had published a volume of conjectures, or a Treatise upon the Diseases of Women and Children, he might have been much more successful; for under one head of Mediterranean Fever, he has confounded three diseases, viz. the Bulam, the Marsh Remittent, and the Bilious Continued Fevers. He has been most illiberal in his attack upon the Medical Officers of Gibraltar; accusing them indirectly not only of mal-practice, but of occasioning unnecessary alarm; of causing patients, who might otherwise have recovered, to be deserted by their nearest relations; of destroying commerce, and occasioning a great deal of distress to individuals. In his Preface, page 10, he says,—

“ The Medical Officers of Gibraltar, have *constantly*
 “ *declared the Fever of Carthagera to be perfectly similar*
 “ *with that which has committed such devastations amongst*
 “ *themselves; in this opinion, he says, I coincide, and*
 “ *therefore, in my subsequent remarks, shall consider them*
 “ *in the same point of view.* 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.

This assertion of Dr. Burnett's I deny, and as a proof to the contrary I must refer my readers, first, to my instructions to Mr. Vance, p. 59, and next to the following Extract of my Letter to Sir Richard Keates, published by Dr. Burnett himself; in which I point out not only two distinct diseases, but two methods of cure, mentioning blood-letting as beneficial in the one, and detrimental in the other

EXTRACT.

“ In my opinion the fever, which prevails on board the
 “ transports from Carthagera, is the contagious fever of the
 “ West Indies, known by the name of the Bulam Fever,
 “ from its having been imported from that settlement to the
 “ island of Grenada, in the year 1793. It is the same
 “ disease which prevailed in Spain in the years 1800 and
 “ 1803, and at Gibraltar in 1804.

“ 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.”

(Signed) W. PYM.

So that this extract from his own work, contradicts his very first assertion. He attempts to clear up the mystery, not only of the fever of 1810, but of 1804; of this last year he begins by the report made to him by Mr. Griffiths, which is in direct opposition to what he wishes to establish; for Mr. Griffiths says the disease was announced to be contagious, and the depletory system was entirely laid aside. The Report, page 208, says,—

“ I cannot take upon me to be precise in point of date,
 “ but I think the disease was considered in its infancy in the
 “ beginning of September.

“ 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 in-
 “ habitants of the place, at the same season ; but deaths
 “ becoming more frequent than at any other of its former
 “ visits, this opinion was soon relinquished, and the disease
 “ *announced to be contagious*, and of the same type with
 “ that which was then prevailing at Malaga.

“ With respect to the treatment, my memory goes only to
 “ state in a general way, that in the beginning of Septem-
 “ ber the complaint was evidently considered inflammatory,
 “ and many recovered under an evacuating treatment ; but
 “ as the number of sick increased, and the disorder put
 “ on an early aggravated form, *the depletory system was*
 “ *entirely laid aside.*”

With respect to the practice, Mr. Griffiths mentions,—
 “ That Mr. Burd, the surgeon of the Naval Hospital, was
 “ the only person whom he recollected to have carried on
 “ the system of evacuation extensively; and, though the
 “ prejudice against his practice was great, yet he remem-
 “ bered in a conversation he had with him, he mentioned
 “ many instances of its success.”

The prejudice against Mr. Burd's practice was certainly
 very great, on account of his bad success, which he was
 himself soon convinced of; and, as well as Dr. Nooth, (who

first recommended it,) gave it up, and had recourse to the purgative system.

I have mentioned before the bad success attending the practice of blood-letting in this disease at Martinique, and it had certainly a very fair trial, at Gibraltar, in 1804, when it was universally given up even by its strongest advocates. During the Epidemic of 1813, venæsection was tried by some of the medical officers; the success of which is described in the following Extract of a Letter to me from Mr. Fraser, Deputy-Inspector of Hospitals.

“ Venæsection, so beneficial in the Bilious Remittent,
 “ was generally disused; and when any of the troops hap-
 “ pened to have been blooded, before they were sent to the
 “ fever hospitals, the medical officers in charge made offi-
 “ cial complaints, that they had no chance of saving their
 “ patients, and this practice was at last peremptorily inter-
 “ dicted.”

And as I have entered upon the subject of blood-letting, which, I agree with Dr. Burnett, is a sovereign remedy in the *early stages* of the Bilious Remittent, and the same in the Bilious Continued, even when the disease has been of some days duration, a remedy which, in this last disease, I have used, for a great number of years, with success, in Gibraltar; a practice which had long been in use with the Medical Officers in the army of Sicily, under the inspection

of Dr. Frankland, and the success of which was given to the public, in a Treatise upon Fever, by the late Dr. Irvine, some time before Dr. Burnett was appointed physician to the fleet; but it is a practice which I must pronounce not only not beneficial, but absolutely prejudicial and inadmissible in every stage of the Bulam Fever; for although we have instances of patients recovering after its use, the proportion is small indeed, and in those cases it is probable that the disease would have been in a mild form, and terminated favourably, and with less consequent debility, than if it had not been used: thus a patient, under the influence of Scarlet Fever, in its mild form, might bear the loss of a few ounces of blood with impunity, although it might not be reckoned necessary as a remedy; but what would be the consequence if the same system was followed up in the same disease, when under the form of Cynanche Maligna.

In every part of the world where this disease has made its appearance, the symptoms at its commencement seemed so strongly to indicate the necessity of blood-letting, that the lancet has invariably been had recourse to. Dr. Chisholm tried it on its first appearance at Grenada; he mentions that little experience was sufficient to shew the impropriety of it, and instructed by repeated examples of its hurtful effects, he very early laid aside all thoughts of lessening the inflammatory state by means of it; for although the pains seemed to undergo a temporary mitigation, yet the consequence, at the expiration of a few hours, was always fatal.

The Physicians at Cadiz, when the disease first made its appearance there, had recourse to their general remedy in all diseases—venæsection; but, as in other places, they soon felt the bad effects of it, and gave it up.

Don Tadeo De Lafuente, in mentioning this disease, says, —“ Parece haberse adoptado en Cadiz, muy à los principios *el Metodo Antiflogistico*, pero tambien parece que “ los malos sucesos de las sangrias lo hiccieron abandonar inmediatamente y con efecto.” And so completely is blood-letting given up in this disease in Spain, that Dr. Flores Moreno, the last person who has published upon it, does not even hint at it in the whole course of his work.*

* The following Extract from Dr. Flores Moreno, page 5, gives, in a few words, the opinion of the Spanish Physicians respecting this disease.—“ Es indudable que esta enfermedad proviene de un contagio. Su modo de aparecer, el de propagarse, y aun el de extinguirse, asi nos lo manifiestan. Jamas se ha observado entre nosotros sin que haya sido transmitida de otros paises: jamas ha pasado los limites que le han sido puesto en tiempo, quando la vigilancia de los magistrados ha hecho se tomen medidas oportunas para impedir los progresos del contagio; o quando los pueblos, sollicitos de su conservacion, le han cerrado sus puertas, cortando toda comunicacion con los que se hallaban infestados. Nunca se ha observado atacase esta enfermedad en los principios sino à aquellos que habian comunicado con sujetos afectos de ella misma, ó con personas, ropas ó enseres procedentes de los Buques ó pueblos infestados: aun mas, apenas podrán citarse algunos

Dr. Wright, in his Report to the Medical Board, says,—
 “ The use of the lancet we judged unnecessary and dan-
 “ gerous in the extreme.”

Dr. Clark, of Dominica, says,—“ That from the remark-
 “ able flushing of the face, great inflammation of the eyes,
 “ and full pulse in the first stage of this disease, young prac-
 “ titioners might be induced to use the lancet freely; and
 “ the French surgeons, whose chief remedy, in almost all
 “ disorders in these islands, is venæsection, very readily
 “ fell into this error. *There was not a single instance of*
 “ *an emigrant recovering who had been bled.*”

Dr. Todd, of Jamaica, says,—“ Blood-letting, which ex-
 “ cited so much discussion, and had so many advocates,
 “ in consequence of the *temporary* abatement of the gene-
 “ ral symptoms, is now very nearly abandoned; nor was it
 “ relinquished by its supporters but on the most complete
 “ proofs of its fatal effects.”

Dr. Davidson, of Martinique, in a letter to Dr. Mease,

“ Casos de individuos en quienes se haya presentado per segunda
 “ vez la misma enfermedad con todos sus caracteres; Asi como
 “ tampoco podrá hacerse mencion de muchas casas, en las que
 “ habiendo llegado á apoderarse el contagio de alguno de la fa-
 “ milia, haya vuelto a salir sin haberla visitado primero a toda
 “ ella.

of Philadelphia, says,—“ I am only sorry to observe, that
 “ this disease often attacked with such violence as baffled
 “ every attempt. The inflammatory stage was but of short
 “ duration, and the symptoms of exhausted nervous energy
 “ so soon appeared, that we were afraid to use the lancet;
 “ the few cases in which I tried it did not succeed.”

Dr. Hosack of New York, in his Essay on Yellow Fever, says,—“ With respect to bleeding, my observation has
 “ been, that the promiscuous use of the lancet was very
 “ injurious and unsuccessful. In the New York Hospital
 “ it was frequently employed; but, in the majority of cases,
 “ the disease terminated fatally.”

Dr. Coffin, in his account of the fever of 1796, at Newbury Port, State of Massachusetts, to Dr. E. H. Smith, says,—“ The method of treatment was regulated by the
 “ symptoms; when there was any hardness or fulness in
 “ the pulse at the beginning, bleeding was used with *advantage*, and sometimes repeated;” and, as a proof of its success, he says,—“ of those who had the fever, a *full third recovered*.”

Dr. Robertson, of Barbadoes, says in the treatment of this fever, he found bleeding highly injurious—he says,
 “ I have known many who have died that have been bled,
 “ and few, indeed, that have recovered when venæsection
 “ has been performed in this island.”

Dr. Paterson, of Grenada, says, "Bleeding was seldom practised in this fever, from the rapidity with which a state of debility followed that of re-action."

Dr. Noble, of St. Christopher's, says, "Bleeding was resorted to as a remedy indicated by the intense pain in the head, and inflammatory appearance of the eyes; I cannot, however, say that I ever experienced any good effects from the use of the lancet."

Dr. Gillespie, page 71, says, "Bleeding, which appeared to be indicated from the violent inflammatory symptoms, was practised in the beginning of the Epidemic on several very robust young men, but with very bad success, diminishing the strength of the pulse, but very much increasing the frequency of it, without perceptibly lowering the excessive heat or urgency of the symptoms. The effect of this evacuation in diminishing the strength of the patient, and accelerating the second stage of the disease, was remarkable!—the blood taken away was loose in its texture—the crassamentum dark coloured—the serum tawny, and in considerable quantity. Not one of those bled recovered, although they were the most robust among five hundred men."

The same author, page 133, says, "Some of the most rapidly fatal cases which occurred in the beginning of the disease, were those in which plentiful venæsections had

“ been used ; and later, in the course of the Epidemic, the
 “ practice was abandoned.”

And at page 134, “ The ill success of the practice of
 “ bleeding freely in the Yellow Fever was, however, more
 “ fully exemplified at the Naval Hospital of Antigua, in
 “ the autumnal months, when a very fatal Epidemic
 “ reigned, principally among the seamen belonging to the
 “ *Invincible*, a ship of seventy-four guns. The late Dr.
 “ Rutherford, who was then Surgeon of that hospital, was
 “ very much attached to bleeding in Yellow Fever ; he
 “ practised it in this Epidemic, even *ad deliquium animi*.

“ The concurrent testimony of Mr. Rumney, Surgeon of
 “ the *Invincible*, and the other respectable naval surgeons
 “ who assisted at that hospital at the time mentioned,
 “ concurs in proving that the practice was attended with
 “ very ill success, and was afterwards renounced by them.”

Dr. Valentin, Physician to the French army at St. Domingo, in treating of the cure of *La Fièvre Jaune d'Amérique*, page 199—“ Je n'ai jamais employé la saignée,
 “ quelles que fussent les indications touchant les poulx, la
 “ rougeur de la face l'irritation et l'état inflammatoire, elle
 “ accélérât la débilité, la prostration, et bientôt l'extinction
 “ des forces vitales. Les personnes les plus vigoureuse,
 “ d'une constitution athlétique et au teint fleuri succom-
 “ baient comme les autres, malgré les saignées répétées.”

Monsieur Gilbert, page 91, says,—“ La saignée est re-
 “ gardée dans le pays, et même par quelques praticiens,
 “ comme un préservatif, de la fièvre jaune, ou du moins
 “ comme un moyen de la rendre plus douce à supporter.
 “ Quoi qu’il en soit de ce moyen, qui peut être utile aux
 “ nouveaux débarqués, dans un grand nombre de circon-
 “ stances, et relativement à leur âge, à leur constitution et
 “ à leurs forces, il n’en est pas moins, vrai, en principe, que
 “ la saignée par elle-même est contraire à toute maladie-
 “ adynamique de sa nature. Si elle a souvent calmé l’irri-
 “ tation, combien de fois n’a-t-elle pas jeté le malade dans
 “ un affaissement mortel ?

Having quoted such authority against blood-letting in this disease, I shall next quote Dr. Rush, who has been looked up to as the original proposer of it, as a most successful practitioner, and the highest authority in favour of it—he says,

Vol. iii. page 340, “ My family, about the 25th August,
 “ consisted of my mother, sister, and five pupils; viz.
 “ Messrs. Washington, Fisher, Alston, Coxe, and Stael.”

At page 347 he says, “ On the 11th September Mr.
 “ Washington fell a victim to his humanity; Mr. Stael died
 “ on the 23d, Mr. Alston on the 24th, and my sister on the
 “ 2d October.”

At page 354, "The deaths of my pupils and sister have
 " often been urged as an objection to my mode of treating
 " the fever; but when the influence of the *concentrated*
 " *contagion* which filled my house, was added to that of
 " constant fatigue upon their bodies, what remedies could
 " be expected to save their lives."

I shall next quote a publication by Mr. Johnson on Tropical Climates, in which a description of the West India Yellow Fever is given by a physician who had charge of a public hospital in the West Indies nearly six years.

Page 212 he says, "Bleeding largely in the early stage of
 " the fever has been found of the most eminent service.
 " When employed after the first stage of the fever had
 " passed by it did injury, and certainly hurried on dissolution.

"The following plan is that which has been pursued at
 " this hospital for several years, with at least superior success to that of any other.

"From twelve to twenty-six ounces of blood, and upwards, are drawn from the arm as soon after the accession
 " of the fever as possible: the blood should be drawn until
 " derangement of the vascular action has taken place by
 " the quantity of blood extracted, indicated by approaching
 " syncope, nausea, and vomiting, &c.

“ Thus the treatment, during the first twenty-four or
 “ thirty-six hours, consists in one full large bleeding,
 “ purgatives, so as to produce several copious alvine eva-
 “ cuations, the cold affusion, shaving the head, and the
 “ liberal use of barley water, or any other weak drink.
 “ Under this plan, *fifty patients out of a hundred* attacked
 “ by the genuine Endemic Fever, will shew evident signs of
 “ amendment within the above-mentioned period: from
 “ this state they recover with extraordinary rapidity; in
 “ one week they are restored to perfect health.”

After having mentioned the two last authorities for blood-
 letting, and marked the success of the practice, which
 is a tolerably good proof of the disease being a very different
 one from what Dr. Burnett had to deal with; I shall in
 this place, in corroboration of the above, and to shew how
 speedy is the termination of the Bulam Fever, and how
 rapid the recovery from it, insert a list of one hundred and
 five patients, which I had charge of, belonging to the 13th
 regiment, at Gibraltar, in the year 1804.

1	discharged convalescent on the 2d day after being attacked
2	 4th
4	 5th
5	 6th
10	 7th
12	 9th
11	 10th
11	 11th
6	 12th
7	 13th
6	 14th
2	 15th
1	 18th
1	 26th
89	

1	died on the 2d day
8	 3d
2	 4th
1	 5th
1	 6th
1	 7th
1	 9th
1	 11th
16	

I have been favoured with the annexed Returns of Deaths and Recoveries at Gibraltar, during the Epidemics in the years 1813—14.

Return of Non-commissioned Officers and Privates DISCHARGED cured from the Hospitals, and DIED of Epidemic Fever in Gibraltar, during the autumn of 1813.

Regiments.	Deaths, including Officers.	Discharges.	Proportion of Deaths to Total Cases.
Royal Artillery	74	129	1 in 3 nearly
Royal Sappers and Miners	17	26	above 1 in 2
4th Regt. Vet ⁿ . Bat ⁿ .	59	104	1 in 3 nearly
7th ditto ditto. . .	70	70	1 in 2
Detach ^t . 11th foot . .	17	61	1 in 5 nearly
26th Regt.	54	316	1 in 7 ditto
27th ditto	66	254	1 in 5 ditto
Foreign Recruits. . . .	34	47	about 1 in 2
Total	391	1007	under 1 in 3½

1814.

Regiments.	Deaths, including Officers.	Discharges.	Proportion of Deaths to Total Cases.
Royal Artillery	17	41	1 in 4 nearly
Royal Sappers and Miners	2	1	2 in 3
11th Regt.	5	151	1 in 31
26th ditto	19	148	1 in 9 nearly
60th ditto	19	94	1 in 6
67th ditto	26	75	1 in 4
Dillons	26	94	1 in 5
Total.	114	612	about 1 in 6½

From the above Returns, although we cannot flatter ourselves much upon the success of the practice, except by comparison, and in reference to the success in the West Indies in general, to that of Dr. Rush, or the West India Physician, mentioned in Mr. Johnson's Work—the mortality is certainly much less, and serves to shew that Dr. Burnett has been completely in the dark, with respect to the nature of the Gibraltar Fever.

And from the perusal of his book it appears evident, that he had not the Bulam Fever to contend with; the majority of cases under his own care were undoubtedly the Bilious Continued, and those under the Surgeons of the Fleet the same disease, or the Bilious Remittent, particularly on board the *Temeraire*. The *Repulse*, from Mr. Boyd's report (page 113 of Dr. Burnett), is the only ship that appears to have suffered from the Bulam disease.

All this appears evident, not only from the reports made by the surgeons, and the *consequences* of the disease; but from his own practice, as even the strongest advocates for blood-letting, point out the necessity of its *early use*.

Dr. Rush says, page 106,—“ I began the cure, in most cases, by bleeding, where I was called on the *first day of the disease*; and was happy in observing its usual salutary effects in *its early stage*. On the second day it

“ frequently failed of doing service; and on the subsequent days of the fever, I believe it often did harm.”

Upon examining eleven cases, which Dr. Burnett gives, as treated by himself, I find—

2	were bled on the 2d day
3	 3d
4	 4th
1	 5th
1	 7th and 15th.

Which practice I will allow might prove very successful in the Bilious Continued Inflammatory Fever, or in the Remittent; but quite the contrary in the Bulam. Indeed the patient's fate, in this last disease, is generally decided by the third day.

Dr. Burnett says, page 257,—“ The physicians, and
 “ other medical men in both these places, (Gibraltar
 “ and Carthagen), have in general asserted, and no
 “ doubt believe, that the fever is of a contagious na-
 “ ture; that it has always been imported, and has been
 “ propagated both by persons and goods. This is a ques-
 “ tion 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 doing the greatest possible*
 “ *injury to the community, to allow this disease to pro-*
 “ *ceed, 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 ascer-
 “ tain, 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.”

As to his history of Mr. Sancho, as he calls him,
 which is evidently borrowed from Dr. Bancroft, it is an
 acknowledgement of his never having made any enquiry
 about the matter; for I do not suppose there was one re-
 spectable merchant in Gibraltar who was not well ac-
 quainted with the fact.

He could have seen an affidavit of the whole business in
 the Secretary's Office; and if he had doubted that, I could

have introduced him to Mr. Santo himself, who is still alive to tell the story.

With respect to the contagion of the fever which prevailed at Gibraltar in 1804, it is unnecessary to make any further mention here; all those who sequestered themselves, escaped it, as well as those who had had it at a former period, even ten years before; the same has been the case at Gibraltar in 1813 and 1814.

Dr. Burnett lays great stress upon three cases of fever in 1804 on board the ships in Gibraltar Bay, not having communicated the contagion to any of the crew; he mentions, however, that the surgeons who had charge of them, were perfectly *aware of the contagious nature of the disease*, who, of course, took the precautions against it, of separation, free ventilation, &c. which on board ship are successful against the contagions even of the Small pox and Plague.

Five Cases of Plague were carried from the shore on board the Theseus 74 (off the coast of Egypt in the year 1801), and treated by Mr. Tainth, then surgeon to that ship (three of them with success), who being aware of the nature of the disease, took the necessary precautions, and with effect, for it was not communicated in any one instance to the crew.

Dr. Gillespie, page 116, observes,—“ The Beaulieu frigate having captured a ship from Guadaloupe in the middle of this month (April), a negro prisoner was found to have been infected with the Small-pox, which he communicated to two seamen on board the frigate. There were many persons on board the frigate who had not had the disease, yet the disease was happily prevented from spreading further, by taking precautions to separate the infected from the rest of the crew.”

Dr. Lind, in his Treatise upon Fevers and Infection, observes, at page 111,—“ That the infection of the Small-pox was pent up in the Royal George among eight hundred and eighty men; yet this contagion disappeared altogether at sea, after having destroyed four or five persons, and left near *one hundred* unattacked.”

Dr. Burnett says,—“ The Fever of 1810 was stated to have been derived from some deserters from Carthage, who arrived in transports from that place.” He hesitates in believing it, and wants proof.

I take it for granted that the Doctor knows the punishment for breach of Quarantine regulations; and although the circumstance was suspected, it is not so easy to obtain positive proof, though the presumption is very strong. Does he doubt that the contagion of Plague was conveyed into Malta from a particular ship in the year 1813? but

he would find it difficult to procure proof. Before the fever appeared at Gibraltar, it had been raging two months at Carthage, and one month on board the transports in the Bay; it did not appear inside the garrison before the 20th of October, and then it was confined to those families, or persons only, who kept up a communication with one another; a particular account of which I have given at page 47.

Dr. Burnett says,—“ That during his stay at Gibraltar, “ he made particular enquiry respecting the nature of the “ fever which had prevailed there in the autumn and “ winter preceding; and, from the accounts he received, “ he has every reason to think it to have been the epidemic “ of the season, the Bilious Remittent Fever, as it has been “ called.”

He seems however to have been very remiss in his enquiries, for he certainly gained very little information upon the subject, otherwise he would not have printed the following queries, (page 263).

“ 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*?

“ There is no instance in 1810 of the attack of fever at
 “ Gibraltar having been the consequence of any one’s at-
 “ tendance on the sick!! Why Mr. Pym has called this
 “ the *Bulam* Fever, it is impossible for me to *conjecture*!”

I could have informed him (when in Gibraltar in 1811, or when I met him at Minorca and Malta in 1812), of several circumstances relating to this disease, which he ought to have made himself master of, before he attempted to write upon it. I could have told him of its peculiarities; of its attacking the human frame but once; of its being contagious; of its powers being increased by heat, and destroyed by cold; of the means taken to put a stop to it (page 50); and of persons being employed to attend the sick who had passed the disease; that the medical gentleman (Mr. Arthur), who went on board the transports to take charge of the sick, caught the disease on the fourth day. I could have told him of Mr. Gardiner’s (surgeon to the Naval Hospital) opinion of the disease, and the opinion of a medical officer of such high character in his profession, and long standing in the service, ought to have some weight.

The following is an extract of his report to the Commissioners of the Transport Board upon the occasion:—

Gibraltar, November 1, 1810.

“ Within the last ten days a disease of a very suspicious
 “ type, in point of malignity of contagion, has appeared in
 “ the south part of the garrison; the rapidly fatal termina-
 “ tion of the cases, (some in less than forty-eight hours),
 “ and the constant ejection from the stomach of a dark
 “ matter, resembling the grounds of coffee, has caused the
 “ adoption of measures on the suggestion of Mr. Pym, that
 “ have been so promptly, judiciously, and rigorously en-
 “ forced by his Excellency the Lieutenant-Governor, that
 “ I trust and believe, under Divine Providence, will prove
 “ effectual in arresting the progress of a malady, that, on a
 “ former occasion, was so extremely fatal.”

And I can now give him the opinion of Mr. Donnet
 (Medical Department of the Navy), who has been at
 Gibraltar during the years 1810, 13, 14, and than whom I
 do not believe any medical officer has been more successful
 in his practice.

The following are extracts from his replies to queries
 with which he favored Mr. Fraser, Deputy Inspector of
 Hospitals.

Q. “ Have you been able to adopt any general mode of
 “ treatment to which you give the preference?

“ Report especially upon bleeding.

“ Purgative medicines.

“ Cold affusion, or cold generally.

“ Tepid spongings.

“ Mercury as an alterative.

“ Other remedies.”

A. “ I have seldom bled during the Epidemic. I have
“ always used purgative medicines in the first instance. I
“ generally had recourse to sponging the body with cold
“ vinegar and water.

“ I never used tepid sponging.

“ I have used mercury until sensible effects were pro-
“ duced. The other remedies to alleviate the most dis-
“ tressing symptom (the irritability of stomach), were
“ blisters and warm fomentations to the epigastric region.
“ Effervescing draughts, opium, with musk, camphor, de-
“ coction of bark combined with opiate confection, brandy
“ and water, &c. &c. have been alternately used.”

Q. “ Can you support, by cases, or undeniable authori-
“ ties, any instances of second attack, or relapse?”

A. “ I am of opinion, that those who have had the Epi-
“ demic once, are not liable to be attacked a second time.
“ No relapses have come under my observation. I have
“ not seen any case of the epidemic assume an intermittent
“ form in this place.”

Q. " Was the disease contagious or infectious ?"

A. " I do believe it to be contagious or infectious,
 " having witnessed, that in some circumstances, its pro-
 " gress has manifested itself in a manner similar to other
 " contagious diseases ; but I observed that the infectious
 " properties of the malady are counteracted by expo-
 " sure to free ventilation, and a strict attention to cleanli-
 " ness."

If Dr. Burnett had known, that even a moderate degree of cold destroyed the disease, he would not have put so much stress upon the following paragraph, page 206, 7, of his work.

" Amongst other circumstances which were mentioned
 " to me while at Carthagen, relative to the fever which
 " prevailed there in 1804, the following, which I received
 " from the best authority, and by the gentleman's permis-
 " sion, 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 cap-*
 " *tured a few days before, after a gallant resistance, ar-*

*“ rived 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 were
 “ attacked with the disease in consequence.”*

This is a regular second edition of Dr. Bancroft's hospital bedding, said to have been sold by the American to the French Government (page 194). And I may make use of the same argument against it; for the disease, he says, ceased on the 23d of January; that is to say, it ceased attacking Spaniards (the contagion having been destroyed by the cold); and is there any thing wonderful in its not attacking the English? And as he has compared this disease to the Walcheren Fever, I should like him to inform me on what day this last disease ceased?

The fact is, that he has published upon a disease which he has not seen, and which he does not know the nature of; and if it is published with the view of recommending blood-letting in all cases of fever in the Mediterranean, and doing away the quarantine regulations, there never was a book had a more mischievous tendency.

Dr. Burnett's account of the disease is very different from the Bulam Fever, not only in its symptoms, but consequences. At page 12, he says,—“ 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 as-
 “ sumes, 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.”

At page 249 he says,—“ In those who do not imme-
 “ diately die, the termination in *ascites or anasarca, hepa-*
 “ *titis, phthisis, and intermittent fever*, occurs in each.”
 And, in his report to the Commander in Chief, he says,—
 “ The total number is one hundred and thirty-three from
 “ the Temeraire, and one hundred and seven from the
 “ Invincible. The others are in different stages of conva-
 “ lesence, 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.”

At page 159 he says, “ 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. The patients were *constantly*
 “ *relapsing*; several as frequently as *three times*, most of
 “ them *once*, and some of them were daily attacked with
 “ dysentery.

At page 165, “ The Temeraire 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 commis-
 “ sion, and her men turned over to the Union; from whence
 “ many, 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 ob-
 “ structions; so that, on a common calculation, this fever
 “ cost the Temeraire’s ship’s company at least *eighty men*,
 “ comprising deaths and invalidings.

“ I have (he says) thus endeavoured to collect all the in-
 “ formation I could, respecting the nature and treatment of
 “ this fever, as its subsequent consequences have been
 “ almost as distressing as its immediate effects.”

The above Extracts from Dr. Burnett’s Publication, must
 convince every person who has seen the Bilious Remitting,
 or Bilious Continued Fevers, that the diseases described by

him are of that nature; not only from the length of its duration and liability to relapse; but from the frequent occurrence of diseased viscera, and from their being relieved by blood-letting; in all which particulars they differ from the Bulam Fever.

At page 42, I inserted a monthly return of sick at Gibraltar, for the month of January 1805, to shew the small number of cases of diseased viscera only a month after the fever had ceased in 1804; and I now insert the returns of the same garrison for December 1813, 14, (the month after the Epidemics ceased), which, compared with the description of the diseased viscera mentioned by Dr. Burnett, puts the matter beyond a doubt; and is, perhaps, as good a proof as could be fixed upon, of the existence of two diseases, as I described them in my instructions to Mr. Vance, page 95.

RETURN OF THE SICK IN THE ARMY AT GIBRALTAR.

20th December 1813.

DISEASES.		
FEVERS.	Strength of the Army.	3600
	Simple Contagion.	22
	Typhus.	—
	Intermittent.	3
	Bilious Remittent.	1
	Pneumonia.	1
	Catarrh.	1
	Phthisis Pulmonalis.	2
	Rheumatism.	3
	Dysentery.	7
	Venereal.	6
	Ophthalmia.	19
	Asthma.	5
	Scurvy.	1
	Dropsy.	1
	Ulcers.	11
	Wounds.	11
	Punished.	4
	Casualties.	15
	Other Chronic Complaints.	1
	Total.	114
	Convalescents.	38

(Signed) J. D. A. GILPIN.

Deputy Inspector.

RETURN OF THE SICK IN THE ARMY AT GIBRALTAR.

20th December, 1814.

DISEASES.	
Fever.	Strength of the Army.
	Continuæ.
	Typhoides.
	Intermittentes.
	Bil: Remittentes.
	Hepatitis.
	Catarrhus.
	Pneumonia.
	Phthisis Pulmonalis.
	Rheumatismus.
	Diarrhœa.
	Dysentaria.
	Syphilis.
	Ophthalmia.
	Icterus.
	Epilepsia.
	Ascites.
	Scorbutus.
	Abscessus.
	Cynanche Torsillaris.
	Ulcera.
	Fractura.
	Vulnera.
	Puniti.
	Casualties.
	Alii Morbi Chronici.
	Total.
	Convalescents.

(Signed)

J. Mc. MULLIN,

Physician to the Forces.

The description of the disease given by the Surgeons of the fleet, informs us also that it was not only a Remitting Fever, but a Fever of much longer duration; patients very often not reporting themselves sick, until the third or fourth day of their illness, a period of time which, in most cases of the Bulam Fever, carries off the patient, or puts a termination to the disease.

Mr. Griffiths, in his Report, page 152, says—"Those who did not apply 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. 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 delirious; had a favourable crisis on the *ninth, eleventh, and fourteenth days*, and finally recovered after a very tedious convalescence."

I must call my reader's attention particularly to this account, so different from the Bulam Fever, with its single paroxysm, seldom extending beyond the third day. We have also in this short account most of the diagnostics between both the Remitting, Continued Bilious, and the Bulam Fevers—the early and dark coloured suffusion of the eyes and skin—the greater length of the disease, even to the

ninth, eleventh, and fourteenth days—the tedious convalescence—and, finally, no mention of Black Vomiting, which seems to have been a symptom rarely making its appearance in Dr. Burnett's practice, even in the cases that terminated fatally. As he only mentions one case (his first) who was bled on the fourth day of his disease, and attacked with dark coloured vomiting on the fifth, which continued on the sixth and seventh, *and from which his patient recovered!!*

Mr. Rae, in his Report to Dr. Burnett, page 224, says—
“ I am certain that almost all the cases which occurred,
“ on shore or on board, were of the remitting or inter-
“ mitting kind. I did not hear of any cases of the three
“ day fever, excepting 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 yel-
“ low tinge throughout, but more particularly about the
“ face and breast. The stomach was nearly divested of its
“ villous coat, the peritoneal coat and vessels apparently
“ only remaining; towards the pylorus it was nearly per-
“ forated. The stomach contained a quantity of dark co-
“ loured fluid, similar to coffee grounds, which Mr. Camp-
“ bell, surgeon to the forces, informed me, constituted the
“ Black Vomit, which came on previous to his death.”

This case, by Mr. Rae, is the only one like the Bulam Fever that has been mentioned (excepting those by Mr.

Boyd); it proved speedily fatal; the body was not of a *deep yellow colour*, but only of a *yellow tinge*, and the villous coat of the stomach, which is the seat of this disease, was destroyed.

Dr. Burnett, page 10, in the History of the Disease —“ 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.*”

This last paragraph has every appearance of being borrowed from some author who has treated of the *Causus*, or *Ardent Bilious Fever*; for it certainly does not correspond either with the cases inserted in his publication, or with the reports of the medical gentlemen of the fleet, upon whom, I take it for granted, he could *rely*, as he has quoted them in support of his speculative opinion. For Mr. Rudland reports, page 162,—“ That for the first two or three days, the *remissions were generally very distinct*; 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.

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

Mr. Shand, page 181, reports —“ That in some cases *the remissions were very distinct*, 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.*”

The Assistant-Surgeon of the *Invincible*, page 165—
“ That the Remissions in some were strongly marked.”

Dr. Ross, who was passenger on board the *Temeraire*, in his Report upon the cases of fever in this ship, page 156, says—“ In most of them there was considerable irritability of stomach; *but I did not witness the Black Vomiting, except in one case.*”

Mr. Morgan, surgeon to the *Temeraire*, 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 described by Dr. Rush, at it occurred at Philadelphia 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.*”

Mr. Allen, Surgeon to the Naval Hospital at Malta, reports, page 169—“ When patients, afflicted with this
 “ fever, were left without medical aid, which was the case
 “ in one or two instances, they became deeply tinged yel-
 “ low ; *the fever was long protracted, and extreme debi-*
 “ *lity succeeded* ; but when early bleeding was resorted to,
 “ it completely prevented those symptoms.”

Page 167—“ The head and liver seemed to be the prin-
 “ cipal viscera affected in this fever.”

Page 168—“ I consider this fever to have been brought
 “ on by intemperance and exposure to heat, constituting
 “ the Bilious, or Yellow Fever of the island.”

Here Mr. Allen reports the *deep yellow* skin—the long
 protracted fever, and extreme debility—the affection of the
 liver, brought on, not by exposure to Marsh Miasmata,
 but by intemperance and exposure to the sun.

So that from the foregoing reports it is evident, that the
 Surgeons were aware of a different disease.

Mr. Rae says, “ That the cases were all of a Remitting or

“ Intermitting kind, and that *he did not hear of any cases of the Three-Day Fever.*”

Mr. Morgan is of opinion, that the fever he saw on board the *Temeraire had not the least resemblance to the Yellow Fever which he had seen in the West Indies.*

Dr. Ross says, it is *much more mild, and not so rapid in its progress*, as that described by Dr. Rush.

Mr. Rudland, Mr. Shand, and the Assistant Surgeon of the *Invincible*, report, that *remissions* were generally very distinct, and that *no particular irritability of stomach could be discovered.*

But it is not in the symptoms only that Dr. Burnett's Fevers differ from the Bulam; it is also in the season of the year at which they occurred. The Bulam Fever has never existed in the Mediterranean, during the first six months of the year; yet we find Dr. Burnett describing a disease, at page 183, which prevailed on board the *Tremendous*, (in Mahon Harbour) during the months of January, February, and March, 1813, which he supposes to be the same: he acknowledges that its appearance was rather unseasonable; but, walking in Dr. Bancroft's steps, he attempts to trace its origin to the exposure of the men to the Miasmata at Carthagenia during the autumn, (the ship having remained

there from the 13th to the 24th of September, 1812) although during the whole time she remained she was anchored in Escombrera Bay, and had very little intercourse with the shore.

He describes a fever of the same kind on board the *Trident* at Malta, in the month of April, and another on board the *Bombay*, in May, which are a combination of evidence in proof of Dr. Burnett's want of information respecting the disease which prevailed at Gibraltar; and that under the head of Mediterranean Fever, he treated of, and confounded together, three distinct diseases, viz. the *Bulam*, the *Bilious Remittent*, and *Bilious Continued or Inflammatory, Fevers*.

The reports of Mr. Boyd describe the *Bulam Fever*; Mr. Rae, Mr. Rudland, Mr. Shand, and the Assistant Surgeon of the *Invincible*, the *Bilious Remittent*; Dr. Ross, Mr. Griffiths, Mr. Morgan, and Mr. Allan, the *Bilious Continued*: in illustration of which I shall wind up the volume, by selecting a case of each, from Dr. Burnett's publication upon Mediterranean Fever.

Before entering however upon this conclusion, I must take notice of one more paragraph, which also seems to be borrowed from some history of West India Fever. At page 8 he says,

“ 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. Un-
 “ happily 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.”

Here he describes what he denied at page 10, having ever been able to detect a *complete remission and exacerbation*; he mentions also a *deceitful period* about the third day, and reprobates the use of stimulants as only serving to increase the malady: but in this stage of the disease, when I consider gangrene of the villous coat of the stomach to have taken place (in the Bulam Fever I speak of, which Dr. Bancroft does not appear to have met with, although he had read of it), it is of little consequence what medicine is had recourse to; but permanent and diffusible stimuli will certainly be more likely to be of service than blood-letting. Dr. Burnett has only published one case in which he seems to have suspected this *deceitful period*, (and which did not take place until the 5th day), the patient was taken from under the care of Mr. Griffiths, Surgeon of the Leviathan, and, if we can judge from the history of the case, was actually convalescent on the morning of the 24th October, when he was described by Mr. Griffiths as *better—pain only in the back*; but in the course of two hours changed very much

for the worse, as far as we can judge from the description given of his case by Dr. Burnett, which I must here insert, as it shews the effect of even ten ounces of blood in this *deceitful period*, on the fifth day of the disease.

And without making any further observation upon the case, I shall copy it, and leave it to the judgment of my readers, whether it would not have been better to have left the patient under the care of Mr. Griffiths, or to have had recourse to the stimuli permanent and diffusible, before he tried the experiment even of leeches.

CASE IV.

Jas. Tucker, purser's steward of the Swiftsure, received into the hospital October 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 very 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: c; jalap: 3 ℥.

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 ℥.

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

Joseph Tucker, purser's steward, ætat 32, of a robust make, and extremely corpulent habit; countenance marked with great anxiety and languor; 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: 3 ij secundis horis:
applicentur region: epgrasticam 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 a:

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 a:

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 a: 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 applied 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.

I shall next insert a case which appears to be the Bulam Fever, as I have mentioned it in the third form—the Yellow suffusion is described of a deeper colour, and more general, than usual.

CASE

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 corpori 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: dydrarg: 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 fœtid stools during the day, and there appears a yellow tinge of the eyes.

Continuetur medicamenta, affusio et application: frigid: ut a:

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: dydrarg: 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: dydrarg: fort: camphorat: 3 j 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 a:

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.

The next case I shall select is one of Bilious Remittent, distinctly marked, and at last terminating in Ague.

This case which, with others, Dr. Burnett most certainly overlooked when writing the History of his Disease, is the Regular Autumnal Endemic of Carthagera, with remissions as distinct as any described by Dr. Cleghorn, which Mr. Rae was aware of, and appears from his report of the 26th of October to have been anxiously looking out for.

CASE

*Of Carthagera 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 ξ 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 Θ j 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: ξ j 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 c: 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 bet-

ter, though there is still considerable fever, nausea, and vomiting; pulse firm, mouth slightly affected.

Detrahantur sanguinis ex arter: temporal: ad ℥j.

Omittan: pilulæ.

R Succ: limonis ʒ℥ potassæ subcarbon: ʒj spt: æther: nitrosi gtt: xxx aquæ ʒj ft: haust: tertia quaque hora sumend: affric: femora c: ungt: hydr: fort: ʒ℥. 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 c: 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 es-

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.

R̄ Ol: ricini: ʒj mane sumend: in haust: aquæ c: 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.

R̄ Aq: fervent: ℥j potassæ supertart: ʒj sachar: purificati ʒj 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 sp: lavend: c:

Sago and wine.

30th. Two dark coloured scanty evacuations, procured by enemas; *a remission last evening*, during which he took about $\bar{z}$ 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.

Rx Decoct cinchonæ $\bar{z}$ 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 $\mathfrak{h}$ j of decoct: cinchonæ with some wine and gruel. This morning skin cool, pulse 82, and soft, tongue foul but moist.

Repetatur cinchon secunda quaque hora, mist: c: 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.

R̄ Decoct: cinchonæ ʒ ij træ: colomb: ʒ j confect:
aromat: gr: x haust: quaque hora sumend:

Repetatur enema p: r: n: ante accessionem febris, ca-
piat 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 enemas; 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.

R̄ Decoct: cinchon: ʒ ij træ: colombæ ʒ iſs, confect:
aromat: gr: x mist: camphoræ ʒ ij 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: 3℥ 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 produced two copious evacuations, still dark and rather foetid; 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: 3. 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 ℥jss .

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.

R̄ Hydrarg: submuriatis, pulv: antim: a: a: grs: jv
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.

R̄ Decoct: cinchon: ʒijj 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: c: supertartrat: potassæ, which produced several very dark fœtid evacuations; since the remission has been using the cinchona as prescribed yesterday.

Quando febris intervenit, R̄ 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.

R̄ Decoct: cinchon: ʒ ij 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: ʒ ij træ: colombæ ʒ iij mist cam-
phoræ ʒ 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.

Repentantur omnia ut heri.

17th. No return of fever, and perfectly easy in every
respect except from the ptyalism ; pulse 90, bowels re-
gular.

R Ol: recini ʒ 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: tj 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 lethar-

gic 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 REA, *Surgeon*
H.M.S. LEYDEN.

The next and last case is one of the common Bilious Fever, which, from being frequently attended with yellow skin, has been confounded with both the Bulam and Bilious Remittent. It will be observed here that the head-ach is confined to the temples, and not to the orbits and forehead—no pain in the back or calves of the legs, and no sickness at stomach.

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 eye-lids 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: c: submuriat: hydrarg.

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

Detrahantur sanguis: ℥ xxx ut a:

Repetatur pill: ut a:

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 a:

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.

From the foregoing observations it appears evident that Dr. Bancroft has been mistaken with respect to Marsh Miasmata, as well as in the idea of the Bulam Fever and Bilious Remittent being actually one.

The Cases extracted from Dr. Burnett's publication prove that he confounded three diseases, and that his history of fever does not correspond either with the detailed cases under his own care, or with the reports of the Medical Officers of the Fleet; that the whole of his publication, as far as it relates to the fever of Gibraltar, is founded upon conjecture, or hearsay information, and appears only a humble imitation of Dr. Bancroft in theory, and of Dr. Irvine in practice.

With both those gentlemen I so far agree, that neither the Bilious Remittent, nor Bilious Inflammatory or Sporadic Fevers, are contagious—and that liberal venæsection is beneficial, as a remedy, in both; but, on the contrary, that the Bulam Fever is highly contagious—and that although patients have survived venæsection when the disease has been in a mild form and the season cool, the consequent debility has been great, and the convalescence proportionably slow.

The Medical Gentlemen at Gibraltar have to regret that Dr. Burnett was not a little more inquisitive when upon the Rock; if he had, it would probably have saved them, or rather him, the opprobrium of the following paragraph, ex-

tracted from his work—a modest attack upon half the Peninsula by one man, respecting a disease which he had never seen.

“ 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 Gib-
 “ raltar, 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!!!”

I mentioned before, and it appears from Mr. Griffiths’ Report, that bleeding was tried early in the disease in 1804, and that the success was so very bad that it was abandoned.

Dr. Burnett seems to have made every enquiry into this subject, for he says, “ In the Fever that prevailed in
 “ Gibraltar in 1804, bleeding was found, in many instances,
 “ of *singular* benefit; a gentleman now living on the rock
 “ informs me that he was bled largely, &c.”

This is certainly a solitary and a *singular* case, so much so, that he is known to every body as the gentleman who recovered after bleeding, (Mr. Farquhar, Paymaster

General); and is the only proof that Dr. Burnett could select in support of this doctrine, although I doubt not but he could have selected five thousand who had not been bled.

I have been led much further than I expected into the review of Dr. Bancroft and Dr. Burnett's Works; and not wishing my readers to rely entirely upon my own opinion, I have collected a mass of most respectable evidence in support of what I have advanced, to prove that the disease which has of late years devastated Gibraltar, (the Bulam Fever), is a disease *sui generis, highly contagious, attacking the human frame but once; of foreign origin, capable of being propagated in countries enjoying a certain degree of heat, which may, at all times, be prevented in Europe by Quarantine Laws, and a well-regulated Police.*

FINIS.

Generally, and in the only sense that the term is applicable
in respect of this document, although I do not say that
could have selected the thousand who had not been so?

I have been told much lately that I expected the
review of the Education and the Education's Work, and that
within my rights to say nothing upon the two subjects.
I have collected a mass of most respectable evidence in
support of what I have advanced, to prove that the disease
which has in the year 1840, (the year of the
1840) is a disease and a great, highly contagious, and
infectious, the disease of the year of 1840, and
evidence of the progress of the disease, and
in this sense of the word, which may at all times be
found in Europe by German, French, and a million

of other people, and which is a disease of the year of 1840,
and which is a disease of the year of 1840, and which is a
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Appendix

TO

MR. PYM'S TREATISE

UPON

WEST INDIA, GIBRALTAR, OR BULAM

FEVER.

NO disease has produced a greater mortality in our Colonies, or has been so little understood by medical men, as the one in question.

The Author, in the former part of his work, has pointed out the real nature of the disease, by proving that it is not constantly resident in the West Indies, or in Spain; that it is not generated by marsh exhalations, or the heat of the climate; but, that it is produced by a specific contagion, and like Small-pox, Measles, &c. affects the human frame but once. These points being established, it is melancholy to reflect, that this malady, equally infectious as the Small-pox,

and far more fatal than the Plague,* has (in consequence of the erroneous opinions which prevailed concerning it) been allowed for so many years to spread devastation through our Fleets and Armies, without the smallest attempt having been made to counteract its baneful influence.

At page 122, it was mentioned, that all the officers and men quartered in Gibraltar during the prevalence of the malady in 1804, who had had it at a former period in the West Indies, escaped it. And at page 27, that out of the whole civil population of the garrison, (amounting to nearly 12,000) only twenty-eight persons escaped an attack of it; of which last number, twelve had had it at a former period, either in America, in Spain, or in the West Indies.

At Gibraltar, during the prevalence of the disease in the years 1810, 13, 14, there was no well authenticated instance of a second attack; every person escaped it, who had had it at any former period; and this fact is now so well established there, that among the Quarantine Regulations against the introduction of the disease this year (1815), *all the troops who have not passed it are encamped, while those who have passed it are doing the duty of the town.*

* In the year 1804, this disease occasioned a mortality of 6000 in less than three months, at Gibraltar, out of a population not exceeding 16,000. The Plague, on the contrary, during nine months that it prevailed at Malta, in 1813, did not destroy 4000, out of a population exceeding 100,000.

At Cadiz, Carthagená, and Malaga, the fact of persons not being liable to a second attack of this disease is considered to be as firmly established as it is in Small-pox; and if any doubts existed upon this point, the following circumstantial evidence, respecting the malady at Gibraltar in the year 1804, puts the matter at rest.

In the Corps of Royal Artillery, there were only two officers who escaped an attack of it; viz. General Smith, and Captain Campbell, and they had had it before in the West Indies.

In the Corps of Royal Engineers, there was only one officer, viz. Captain Thackery, who had had it in the West Indies, and he was the only one who escaped it; excepting Colonel Fyers, who, with his family, cut off communication with the infected.

In the 2d or Queen's Regiment, there were five officers, viz. Colonel Jones, Major Kingsbury, Captain Walsh, Paymaster Wainwright, and Assistant Surgeon Borlase, who had had it in the West Indies; and all escaped it, when every other officer in the regiment was attacked by it.

In the 10th Regiment every officer was attacked by it, excepting Captain Carpenter, who had had it in the West Indies.

In the 13th Regiment there were eight officers, viz. Lieut. Colonels the Hon. C. Colvile, Dana, and Scott, Major Belford, Captains Wilkinson and Brown, Quarter-master Murray, and the Adjutant, who had had it in the West Indies; and all escaped it, although every other officer in the corps was attacked by it. This same Regiment, with five of the above named West India officers, and ten who had had it at Gibraltar, embarked for the West Indies in 1809, where they all escaped the disease, although eight of the newly appointed officers fell victims to it.

In the 54th Regiment every officer was attacked by it, excepting Colonel Darby, Captain Louis, and Surgeon O'Dwyer, who had had it in the West Indies. This Regiment in 1808, returned to the West Indies from Europe, filled up with new officers and men, and after being eighteen months in Jamaica, was attacked by and suffered severely from this disease, when all the officers and men who had had it at Gibraltar escaped it.

In the Corps of Royal Barrack Artificers every officer and man was attacked by the disease, excepting Serjeant Jones, who had had it in the West Indies.

In the Regiment of Rolle there was only one officer, viz. Lieut. Muller, who had had it in the West Indies, and he was the only officer in the corps who escaped it.

The medical men at Gibraltar, during the first ten weeks of the disease, were twenty-five in number; six of them had had it in the West Indies, and all escaped; the remaining nineteen were attacked by it, of which number seven fell victims to it.

Two more proofs of the Bulam fever not attacking a second time, were in the 70th and 55th regiments, the first suffered severely from the disease in the West Indies, in the year 1794, and returned to that climate from Europe in the year 1800, filled up with new officers, with the exception of six, viz. Col. Dunbar, Major Elliot, Captains Johnstone, Lawrence, Hutchinson, and Boat, who had had the fever at a former period in the West Indies, and who now escaped it, although the corps buried ten of the newly appointed officers in a very short time.

The 55th regiment was stationed in the Island of St. Lucia in 1796, where it was nearly annihilated by this fever, after which the skeleton of the corps returned to England, was filled up with officers and men, and after being six years in Europe, embarked for Jamaica, where it arrived in 1802. In this Island it again suffered severely from the same disease, a great proportion of the men and twenty-one of the newly appointed officers, having fallen victims to it. Mr. M'Millan, surgeon to the forces (formerly surgeon to the regiment) says, it is worthy of remark, that every individual

in the corps was attacked by this fever, excepting eleven, viz. Lieut. Col. Hogg, Captains Lee, Brown, Dickson, Jones, Crichton, Humphries, Muttlebury, Carpenter, and Wilkins, who had had it at St. Lucia, and himself, who had had it at St. Vincent in 1796.

Upon a moderate computation, there were *one hundred and fifty* officers (civil and military) at Gibraltar, who had not had the disease before, and *twenty-five* who had passed it in the West Indies; and making an allowance for one or two doubtful cases, where the disease was so mild as not to confine the patient to bed, one hundred and forty-five at least out of the hundred and fifty were attacked by it, while every individual of the twenty-five who had it before escaped it.

The occurrences at Gibraltar in 1804, are sufficient proof that persons who had it in the West Indies, are not liable to a second attack in Europe.

The 13th and 54th regiments, are proofs that persons who had it at Gibraltar, are not liable to it in the West Indies.

And the 13th, 55th and 70th regiments, prove that persons who had it in the West Indies, are not liable to a second attack upon their return to that country, after having been several years in Europe.

This evidence, so decisive of its attacking the human frame but once, the Author trusts will also convince the medical officers of His Majesty's Navy and Army of its contagious power, and induce them in future to use the same prompt and decisive measures for its destruction, as against any other violently contagious disease.



