

**Letter on febrile contagion : addressed to David Hosack, M.D. F.R.S. F.L.S.
... / by John W. Francis.**

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(9.)

Mr. Comstock
Surgeon &c

from his friend

The Author

LETTER

ON

FEBRILE CONTAGION:

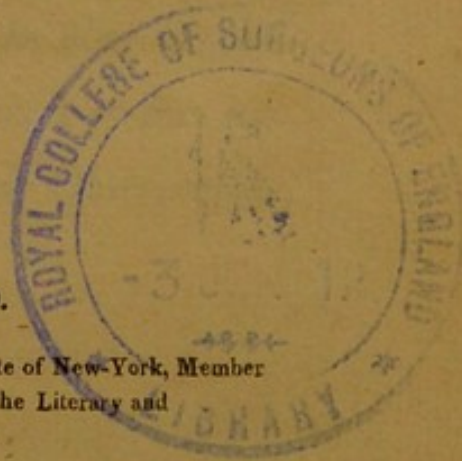
ADDRESSED TO

DAVID HOSACK, M. D. F. R. S. F. L. S.

PROFESSOR OF THE THEORY AND PRACTICE OF PHYSIC, AND OF MIDWIFERY AND
THE DISEASES OF WOMEN AND CHILDREN, IN THE UNIVERSITY
OF THE STATE OF NEW-YORK, &c.

—
BY JOHN W. FRANCIS, M D.

Professor of the Institutes of Medicine in the University of the State of New-York, Member
of the Medical and Chirurgical Society of London, of the Literary and
Philosophical Society of New-York, &c.



—
NEW-YORK :

PRINTED BY CLAYTON AND FANSHAW,

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.....
1816.

LETTER

60

FEBRUARY CONTAGION

THE HISTORY OF THE
DISEASE OF FEBRUARY CONTAGION
AS OBSERVED IN THE
CITY OF NEW YORK
BY
DAVID BOSACK, M.D. F.R.S. F.L.S.

COMMUNICATED TO THE
ACADEMY OF MEDICAL SCIENCES
OF THE STATE OF NEW YORK

BY JOHN W. FRANKLIN, M.D.

NEW YORK

PRINTED BY LEAVELL AND BROWN

1850

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NOTICE.

During the Writer's late residence in Great Britain, finding the question, Whether the human constitution is susceptible of a second attack of Yellow Fever? occupying a large share of the attention of the medical profession, it occurred to him, that the ample experience enjoyed by the physicians of the United States, would go far in settling this controversy. With the view of calling the attention of American Practitioners to this subject, and of obtaining the results of their Observations, the following Letter is published.

NEW-YORK, Dec. 1816.

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NOTICE

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New-York, Dec. 1816.

LETTER.

LONDON, *June 16, 1816.*

DEAR SIR,

Within a few days I set out for Bristol, and in all probability this is the last letter you will receive from me dated London. The present communication might be devoted to many interesting subjects medical and philosophical; but I am induced from several considerations to restrict my attention particularly to one. You have long been acquainted with the important controversies that have existed on that grand subject of medical disputation, contagion; with the various and contradictory opinions that have been promulgated as to its nature and effects; and with the manner in which those controversies have been conducted, especially by American physicians. The question of contagion and infection has also occupied, as you well know, a large share of the attention of the medical writers of Great Britain, especially within the last few years. Much less diversity of sentiment, however, exists in this country than in our own, and in the discussion

much less of asperity has been manifested. A single exception occurs in the case of Dr. Bancroft in his late "Essay on the Disease called Yellow Fever:" a work intended by the author to prove that this form of fever is occasioned by the operation of marsh miasmata, and is non-contagious; and of which performance it is due to the talents of the author to admit that he has displayed great learning and research. As one practically acquainted with the disease during its visitations in America for a period of more than twenty years, your own ample experience will have enabled you at once to perceive the fallacy of such speculations. Indeed, the volume of Dr. Bancroft has most materially aided in the establishment of the very doctrines which it was his object to overturn. Few writers seem to have entered the field of controversy with stronger prejudices, and, perhaps, none have communicated their thoughts with less deference to authority and in more illiberal language. It would appear to be the opinion of Dr. Bancroft, judging from his conduct, that gross invective and personal abuse may supply the place of well authenticated fact and legitimate deduction.

The revival in England of the controversy relative to the specific form and contagious nature of yellow fever has been the means of giving birth to several works of great practical value, and in my

opinion, of deciding the great question; if indeed any thing had been wanting after the laborious investigations of yourself and of other American physicians. The volumes of Sir James Fellowes and Dr. Pym have just made their appearance here, and may not yet have reached you. The former author has published the results of his practice under the title of *Reports of the Pestilential Disorder of Andalusia, which appeared at Cadiz in the years 1800, 1804, 1810 and 1813; with a detailed account of that fatal Epidemic as it prevailed at Gibraltar during the autumnal months of 1804, &c.*: the latter under the name of *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.* As officers of high trust in the medical Department of the Army, they have enjoyed opportunities of unwonted observation: the manner in which they have drawn up the respective accounts of their labours is highly satisfactory, and the accuracy of each work is fully confirmed by official documents. Sir James Fellowes, as long ago as 1795, had numerous opportunities of witnessing the pestilential fever which committed such ravages among the British soldiery of St. Domingo, and he describes the Peninsular fever as appearing

under a similar form of malignity and showing, many of the strongly marked characters of the St. Domingo fever. His history of the origin and progress of the disease clearly points out that there is a real foundation for the distinction between fevers arising directly from the miasmata of marshes and decomposed vegetable matter, and those that are the offspring of human effluvia or specific contagion. The account furnished by Dr. Bancroft under this head is clearly proved to be erroneous, and his statements, deficient as they are in the most essential requisites, will have little weight when compared with the judicious relation of the Spanish Professor Arejula. In his observations on the disorder called the Walcheren fever, which prevailed so fatally among the troops of Zealand in 1809, and after their return to Great Britain, and which disease, notwithstanding the volume of Pringle,* has most absurdly been pronounced by some writers to be the yellow fever, Sir James maintains that it possessed no contagious property, at least no evidence existed that the complaint ever had been propagated or communicated to those in attendance upon the sick. "This fact," says he, "was confirmed by my own experience, and by the testi-

* Diseases of the Army.

mony of all the medical officers of the army." "On the other hand," adds Sir James, "the numerous facts which have been recorded of the contagious nature of the pestilential fever of Spain are incontrovertible; they are detailed with simplicity and truth, and they must speak for themselves."*

Dr. Pym, in his Observations, has attempted to prove that the fever of Gibraltar was the same as the Bulam fever, so happily described by the learned and distinguished Chisholm; that it is a disease totally distinct from the bilious remittent fever of warm climates; that it has no connection with or relation to marsh miasmata; that it appears in the West-Indies only under peculiar circumstances; that it is contagious, and under a certain degree of temperature may be propagated from one country to another; that it attacks, in a comparatively mild form, natives of a warm climate, or Europeans whose constitutions have been assimilated to a warm climate; and that it differs from all other fevers, in having its contagious powers increased by heat, and destroyed by cold, or even by a free circulation of moderately *cool* air. According to Dr. Pym, under the name yellow fever, have been confounded three fevers, which

* Introduction, p. xxii.

he considers as totally distinct. The agency of marsh effluvia, I have already observed, he wholly rejects as a cause of the Bulam, Gibraltar, or real yellow fever. This you will perceive is striking at the root of that most pernicious error that has been so zealously and so widely propagated, notwithstanding the evidence of facts to the contrary, and the happy nosological distinctions made long since by such authors as Blane, Chisholm, Jackson, Lempriere, Clark of Dominica, Stewart, Bard, and numerous other practical observers of undoubted veracity. For I believe you will agree with me that from the want of a due discrimination on the part of many writers who have professed to describe the fevers of the United States, as they have prevailed in our sea-port towns and in different inland places of our country, have proceeded most of the dissensions that have existed on this subject. This want of discrimination too may justly be considered adequate to the production of many of the histories of the diseases of America that have appeared, and in which we find confounded fevers arising from dissimilar causes, characterised by a different train of symptoms, and varying most essentially in the methods of treatment they require.* Dr. Pym's is no feeble

* This language, I feel assured, will not be deemed too strong by those who impartially compare the different accounts of the

attempt to counteract the influence which the unwarrantable opinions of Dr. Bancroft may have had in relation to this point.

But I have to solicit your attention to a much more important circumstance made known in the volumes of Dr. Pym and Sir James Fellowes, and to communicate which this letter has been written. Dr. Pym, who had the advantage of seeing the disease not only in Europe but in the West-Indies, contends, that the Bulam fever attacks the *human frame but once*; and supports this position with the strongest proof. I will not do injustice to his statements by attempting to abridge them. Irrefragible evidence is advanced by Dr. Pym, that the Gibraltar, West-India or Bulam fever, (the malignant pestilential fever of Chisholm) are the same disease. In a subsequent essay, Dr Pym has enlarged on the subject of the disease affecting the human body but once. I must be indulged in one or two extracts.

“At Gibraltar, during the prevalence of the

fevers which prevail in the interior of our country, and more especially those that have made their appearance in the vicinity of lakes with the histories that have been given of the pestilence as it has exhibited itself in New-York, Philadelphia, Boston, and other sea-ports and places within the United States. To consider the several kinds of fevers as *grades* only of one and the same disease, is a retrograde movement in medical philosophy.

disease in the years 1810, 1813, 1814, 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.* At Cadiz, Carthagea, 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 the small-pox."

"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."

"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 the bed, one hundred and forty-five at least out of the one hundred and fifty were attacked by it, while every individual of the twenty-five who had it before escaped it." *Appendix to Dr. Pym's Observations.*

This same peculiarity marked the pestilential fever of Spain. According to Sir James Fellowes, it never has been known to attack the same person a second time in that country. "This fact," says Sir James, "which was first observed by the native practitioners, has now been confirmed by the experience of several years, and by the concurrent testimony of all the surviving inhabitants of those places, where the disorder had most prevailed." *Introduction, p. xxiii.*

I have dwelt so long on the performances of Sir James Fellowes and Dr. Pym, as almost to be deterred from referring to any other authority ; yet I cannot forbear making a short extract from an account of the epidemic fever which occurred at Gibraltar, and for which the public are indebted principally to Dr. Gilpen, one of the inspectors of the hospitals. The paper throughout is of singular merit, and eminently calculated to do away the doubts of the sceptical, and strengthen the faith of the wavering. It is gratifying to the

philanthropist to read the answer given by Dr. Gilpen to the eighteenth query, addressed him by the Medical Board of the army.

“In private houses, in most cases,” replies Dr. G. “the attendants were attacked. There were undoubtedly many exceptions in the hospitals; but it was to be accounted for, as, generally speaking, the attendants were persons who had had the disease previously either in the West Indies, or in Spain, or here, in 1804. At the commencement of the disease last year, it was calculated that there was about five thousand persons within the walls who had previously passed through it; and, after careful inquiry, there does not appear to be one well authenticated case of a person’s having received the infection a second time. I heard, indeed, of three or four; but as the nature of the *previous* fever could not be exactly known, these exceptions have but little weight in so momentous a question. The exemption from a second attack, I am credibly informed, is firmly believed in Spain. At Cadiz, last year, though the fever put on the very worst symptoms, and destroyed the patient frequently in forty-eight hours, the deaths did not exceed, in a population of upwards of seventy thousand, fifty a day; and these were chiefly strangers. The Spaniards are so fully convinced they cannot receive the infection

a second time, that having passed the disease is matter of great rejoicing among them: and a medical certificate of the fact, is a sufficient passport into an infected town, which they enter without the smallest apprehension." Consult the Transactions of that active and distinguished association, the Medical and Chirurgical Society of London, vol. 5, for more ample details.

The immunity of the constitution from a second attack of yellow fever, is a peculiarity so strikingly characteristic of most disorders of an acknowledged specific nature, and of such great practical interest both in a social and political point of view, that it is extraordinary it should have met with so little notice before Professor Arejula made mention of it in the year 1806. "The yellow fever of Andalusia," says Arejula, (I avail myself of the translation of his account in *Sir James Fellowes' Reports*, p. 67.) "attacks persons but once in their lives, and it is of great importance to the physician to know this, in order to form his prognosis and his plan of cure, as well as for the individual who may have passed through this disorder, that both of them being assured of this fact, may step forward without fear to the relief of their fellow creatures who may hereafter be afflicted with so dreadful a malady." Dr. Pym, however, enjoys the reputation of being

the first English physician who promulgated this principle. I have not the sources of information at hand to enable me to determine how many of the writers on the malignant fever, as it has prevailed in our country, have entertained this opinion, though I well recollect Dr. Lining to have been one; as may be seen in his account of the fever of Charleston, published more than sixty years ago in the *Edinburgh Physical and Literary Essays*, volume second. In the interesting correspondence on the yellow fever which was maintained a short time anterior to this period by Dr. John Mitchell, of Virginia, and Lieutenant Governor Colden, of New-York, nothing is alluded to from which we might infer their knowledge of this law of the disorder. See the *American Medical and Philosophical Register*, vol. 1st. and 4th. In the *Facts and Observations of the College of Physicians of Philadelphia*, on the nature and origin of the pestilential fever, after establishing the identity of the yellow fever which existed in that city in 1793, 1797 and 1798, with the West India pestilence, the College state, that it is a circumstance that deserves particular attention, that “very few, if any, of the Creole French in this city, [Philadelphia,] suffered from the contagious malignant fever which prevailed here in 1793, 1797, and 1798, though the disease was introduced into

their families ; and children born in this country of Creole parents, died with it last autumn, while the parents and the children born in the West Indies were entirely exempt from it." We look in vain, if my memory serves me, for any thing of the same sort in the Additional Facts and Observations, a subsequent publication of the College of Philadelphia.

In the Sketch of the Malignant Contagious Fever as it appeared in the same city in 1793, Dr. Cathrall observes, "it does not appear to affect the same person twice. Although careful enquiry" adds he, "has been made by several of my medical friends and myself, it only appears that some of the patients had a slight relapse of fever, but without any of the distinguishing symptoms of the disease, and very soon recovered." It is much to be regretted that the several histories of this disease published by that able medical annalist, the late Dr. Rush, should have been so confused and unsatisfactory on so momentous a matter. In his account of the bilious yellow fever of 1793, you will, nevertheless, find that the refugees from the French West Indies "universally escaped the disorder," though this was not the case with the natives of France who had been settled in the city. On the other hand, Dr. Currie of Philadelphia, in his treatise on the Synochus Ictero-des, states, that several instances occurred of the

disease affecting the same individual a second time, and under circumstances so unequivocal that it could not be *fairly* ascribed to a relapse. This assertion, you will see, is not strongly made, and may be deemed rather matter of opinion than matter of fact.

Dr. Currie also tells us that the French West Indians, particularly those from St. Domingo, almost to a man escaped the disorder, though they made use of no precaution for the purpose, “while those from France were as liable to it as the Philadelphians.” Nothing in relation to the security from a second attack of the disease is advanced by the late Professor Bayley, in his excellent volume on the Epidemic Fever of New-York in 1795, though in the Collection of Papers published by Mr. Webster, a writer on the epidemic of New-York, of the same year, alleges that he knew not a decided instance of an individual labouring under a second seizure.—But at present I am not duly prepared to enlarge on this point, by reference to other American authorities.

Dr. Pym has referred me to a passage in Sauvages on this disease, in which it is asserted that it operates upon the constitution but once. *Typhus icterodes* contagiosus est. Albos tantum, maxime peregrinos ex regionibus frigidis advenas, Indos, Hybridos, mulatros omnes, exceptis infantibus, una tantum vice afficit: nigri vero ab eo mor-

bo nonquam afficiuntur." See Nosologia Methodica, tom. 1. p. 316, of the quarto edition of 1768. Does your own extensive experience in the malignant epidemic of New-York, agree with the opinion that the human constitution is invulnerable to a second attack of yellow fever, and corresponding in this respect with small pox, and other specific disorders? In answer to this question, which has been frequently put to me by practitioners of medicine in England, I have uniformly ventured to assert that it holds good as a general fact. Those who have once had the disease are certainly *less susceptible* of its influence a second time.

Permit me now to make known to you the important results of the recent deliberations of two of the most distinguished medical associations of this kingdom. The decisions of the Royal College of Physicians of London, and of the Army Medical Board are at length brought to a close. These two learned bodies, alike distinguished for scientific attainment and practical knowledge, have been for a considerable time past devoted to a consideration of all the facts connected with the nature and character of the yellow fever, particularly as it has of late years appeared in Spain. The Royal College have pronounced that the yellow fever is a highly contagious disease, which decision they have reported to the Lords of the

Privy Council. With respect to its attacking the human frame but once, they say they think it *extremely probable*, but that upon a point of such importance they cannot venture to give a decided opinion. The Army Medical Board, at the head of which presides Sir James M-Gregor, have also given it as their opinion, that the yellow fever is in its nature contagious; and they further add their conviction, that the fever of Spain is not only strictly contagious, but that like other disorders of a specific character, it affects the human frame but once. I have been kindly favoured with an abstract of these proceedings, and I herewith enclose an extract from the official report upon Dr. Pym's publication, by the Army Medical Board. The operation of climate, soil, and other local causes, in adding virulence to febrile contagion, may be considered almost an axiom in physics; and the necessity of a strict adherence to your improved system of quarantine laws, and all municipal regulations for the purpose of domestic cleanliness, cannot be too strongly enforced. On this subject the Royal College and the Army Medical Board are united in opinion.

(COPY.)

EXTRACT FROM THE REPORT UPON DR. PYM'S PUBLICATION BY
THE ARMY MEDICAL BOARD.

Army Medical Board Office, 6th May, 1816.

“It is due to Dr. Pym to state, that we consider him to have been the first English medical

man who promulgated the opinion, that the disease in question (the Bulam fever,) is capable of attacking the human frame but once; and if that opinion be correct, which we believe it to be, it is certainly an important fact, and led Dr. Pym to employ those persons as attendants on the sick, who had undergone the disease, and therefore were not likely to be affected by the contagion of it, and thus probably saved many lives. Under these impressions, we beg leave to recommend the industry and research displayed by Dr. Pym in his book, to Lord Palmerstone's favourable consideration.

“Signed,

“J. M'GREGOR,

“W. FRANKLIN,

“W. SOMERVILLE.”

The advocates for the unity of disease will, I believe, find it insuperably difficult to reconcile with their theory, the facts which I have thus hastily communicated to you; while the fundamental principle, that there is a radical difference between remitting fever and yellow fever, between fevers depending upon marsh miasms as their source, and those that take their rise from human contagion; in short, that yellow fever is a distinct idiopathic disease, acquires additional support. It may not therefore be of disservice to make known

the purport of this letter. The doctrine maintaining that different fevers are of one common origin, is in reality so unfounded in fact and so pernicious in its consequences, that the sooner it is discarded, the better will it be for the interests of humanity.

Before I conclude, permit me to add a few lines on a subject not wholly foreign to the nature of this letter, the *plague*. The account of the origin and progress of the plague in the island of Malta, in the year 1813, drawn up by Dr. Calvert, physician to the forces, and printed in the 6th volume of the Transactions of the Medical and Chirurgical Society of London, is a document of great value. The reasoning of the author, deduced from the evidence which a faithful narrative affords, seems to be very satisfactory. Contact, he maintains, is the most certain mode of communicating the disease, but he is inclined to deny that it is essential to the propagation of the contagion.

“It appears to me, says Dr. Calvert, that this contagion or principle of plague is diffusible in the atmosphere to a distance greater or less from an infected body, according to the climate and season of the year, and possibly to other peculiar states of the atmosphere, with which we are unacquainted; that in the spring or summer season a single infected person is sufficient to contaminate the air of a whole city; and that those who hap-

pen to be then exposed to febrile causes or otherwise predisposed are the first to become its victims. That these newly infected persons generate a fresh supply of poison, increasing its strength and influence, till at length it becomes so powerful, that nothing but the winter season will entirely put a stop to it."

The various reports that have been so industriously circulated concerning the contagiousness and non-contagiousness of the plague, especially as it prevailed in the army of the East, and the contradictory statements that have been made relative to Baron Desgenettes, induced me, while in Paris in the spring of 1816, to seek an interview with that gentleman, in order to ascertain the truth on this interesting subject. Dr. Delile, the companion of Dr. Desgenettes as a member of the Institute of Egypt, accompanied me. What practical advantage may arise from inoculation for the plague we are not yet able to state; that the experiment is not without great danger is sufficiently well ascertained. The Baron distinctly declared that it had ever been his settled opinion that the plague was a contagious disorder; that his extensive experience as an officer of the medical staff, had only served to confirm him in that opinion; and further expressed much surprise, that any account should have been made public representing his views in a different light. The Baron inoculated

himself with the matter of plague, though he felt persuaded that the disease was of a specific character, and had almost hourly evidence of its contagious effects: but more fortunate than the incredulous Whyte, he did not fall a victim to the experiment.

I am aware how confidently the case of Dr. Whyte has been denied. So far however from any doubt being entertained by the medical philosophers here, as to the accuracy of the statement of his inoculating himself with the matter of plague, it is well known that his preconceived notions of the nature of that pestilence, were the cause of his rashness and premature death. Of this I have been assured by personal communication with Sir Gilbert Blane and Sir James M'Gregor.

When I took pen in hand, I did not expect to produce so long and tedious a letter. My apology must be the nature of the subject, interesting, beyond all others, to an American physician.

With due respect I remain, dear Sir,

Your friend,

JOHN W. FRANCIS.

DR. DAVID HOSACK,
New-York.



