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RELATING TO

The Board of Health.

NEW-YORK:

PRINTED BY JAMES CHEETHAM,

No. 81, *Pearl-Street.*

1806.

21941

Documents

RELATING TO

THE BOARD OF HEALTH.

OFFICE OF THE BOARD OF HEALTH.

NOVEMBER 13, 1805.

TO THE PUBLIC.

ON the termination of their duties of the late calamitous season, the Board of Health consider it no more than a becoming mark of respect to their fellow-citizens, to lay before them such facts as may illustrate the extent of the distress that has so recently interested the sensibility, and affected, in a greater or less degree, the interests of all descriptions of the community.

It is a subject of deep regret, that a collision of opinion exists, not only with respect to the origin, but also in relation to the nature of the malignant disease commonly denominated the Yellow Fever.—While, on the one hand, it is contended that it is imported from abroad, and that it is propagated by contagion, it is on the other hand asserted with equal earnestness, that it originates at home, or is generated on board of vessels, which arrive amongst us, and that it is entirely non-contagious. These discordant opinions, maintained by medical gentlemen of the first respectability and eminence, and which enter deeply into the passions as well as the interests of the community, must necessarily have an inauspicious influence upon most of the lead-

ing measures, either of prevention or remedy, adopted by the guardians of the public health.

The partizans of the opposite theories, animated by the heat of debate, and impelled by their different views of the public good, will naturally approve or censure the measures proposed to avert or alleviate this overwhelming calamity, in proportion as they corroborate or militate against their favourite opinions. Although a man possessed of correct views, will proceed in the direct path of duty without being deterred by censure; still it cannot be controverted, that the support and approbation of an intelligent public, must animate and encourage his exertions. It is not to be denied, that with the most upright intentions, and with the most firm determination, to maintain an impartial official position in the conflict arising from these theories, yet that our conduct may sometimes, insensibly and unintentionally, notwithstanding our utmost circumspection, deviate from the strict line of impartiality. That the inconveniences here stated have in some measure been felt and observed, is highly probable; but we are happy to note that we have received a candid and honourable support from our fellow-citizens in general, and composed as the Board is of persons holding different tenets, yet that our proceedings have been governed by a spirit of harmony rarely manifested in public bodies.

The importance of exploring every source of correct information, and the expediency of dispassionate and ample deliberation, before an official declaration of the prevalence of malignant fever, must be obvious to all. The universal alarm excited by the existence of this disease, the serious injury to the commercial and agricultural interests of the community, and the extreme inconvenience to our fellow-citizens in particular, render it necessary that the evil should absolutely prevail before it is acknowledged. On the other hand, it is due to the health as well as the security of the lives of our citizens, to apprize them seasonably of

the calamity, which menaces them. Circumstanced as the Board were at the commencement of the late malignant disease, well aware that many of their fellow-citizens regarded the few cases which, at that period, had occurred merely as the common bilious fever of the country; sensible of the calamitous consequences which, in either case, would result, of announcing the prevalence of the fever, if it really did not exist, or of not avowing it, if it did; anxious to unite public opinion on a question so deeply interesting, and with the greatest deference and respect to the opinion of the medical gentlemen their associates, who early, uniformly and decidedly declared the evidence of malignant fever, and the probability and danger of an impending pestilential epidemic, the Board considered it their duty to avail themselves of the observations and intelligence of professional gentlemen of different sentiments. Measures were accordingly adopted to obtain their information, and the result was an admission on all sides of the existence of malignant fever.

Although our health laws, in enforcing internal cleanliness, and in subjecting vessels entering our ports to examination, proceed upon the ground that the disease may be either of foreign or domestic origin yet it is evident they recognize, in common with the health laws of other countries, the doctrine of contagion. Under this impression, the Commissioners of the Health-Office have been authorised, almost since their first establishment, to send all persons and things infected by, or tainted with pestilential matter, to the marine hospital at Staten-Island. By an act of last session, this Board was created, and the Legislature, sensible that the exercise of the power of removal, in this restricted form, would be, in some cases, extremely inconvenient and in others highly pernicious, invested the Board with authority to remove either to the marine hospital or elsewhere. The Board and the Commissioners of the Health-Office have, consequently, a concurrent right to send

infected persons and things to the marine hospital, and the Board, moreover, have an exclusive authority to remove them to other places. When some solitary cases occurred, the Board, with a view to arrest the progress of the disease, exercised this discretionary power, but only with the consent of the parties concerned. Afterwards, however, when it was ascertained that the disease was too firmly rooted, to be eradicated by the removal of the sick, the Board considered it their duty to discontinue the application of a remedy, at all times extremely irksome and afflicting, and which perhaps ought only to be resorted to in extreme cases. To the voluntary removal of the healthy from the infected parts of the city, the Board, in a great degree, ascribe the comparative fewness of deaths which have occurred. In the expediency of this step all parties concurred. Whether the disease was communicated by the principle of contagion, or by the influence of an impure atmosphere, the danger was equally alarming, and it was equally expedient to withdraw from it.

From the commencement to the final extinction of the late prevailing disease *six hundred* Cases of Malignant Fever have been reported to the Board. *Two hundred and sixty-two* Deaths as published in the daily bulletins, including those that happened since their discontinuance, have occurred. *Sixty-four* patients, moreover, were sent to the Marine Hospital, *twenty-eight* of whom died of malignant fever. The total number of patients admitted into Bellevue Hospital was *one hundred and seventy-five*, *one hundred and forty-nine* of which were cases of malignant fever, and *twenty-six* of other diseases. The total number of deaths at the Hospital which were included in the bulletins, was *sixty-nine*, *fifty-two* of which were by malignant fever, and the remaining *seventeen* by other maladies. The ratio of recoveries from malignant fever is very nearly *two-thirds*, which, considering that a very large proportion of the patients were received in the last stages of disease, and many

of them in the very article of death, reflects the highest credit on the practice of the visiting and resident physicians of that establishment.

To alleviate, as far as possible the miseries of the indigent, deprived of all resource for their daily support by the general abandonment of the city, the doors of the Alms-House were opened and rations issued to *sixteen hundred and forty* families. An asylum was erected on the public grounds adjoining Bellevue gate, for the reception of such poor families as the Board judged it expedient to remove from the seat of disease. Every accommodation was afforded to *one hundred and fifty* persons, men women and children, who were maintained by the public bounty. Of this number *thirty* men were daily employed in improving the middle road, leading through the property belonging to the corporation, whose wages tended to lessen the expence incurred by the support of their families. To improve the minds of the children in the asylum, as well as to preserve order and prevent them from becoming obnoxious to the neighbourhood, a school was opened, which afforded instruction, for the space of six weeks, to *forty*. On the propriety and good conduct of this part of the establishment, the Board will long reflect with grateful complacency.

These various objects, combined with the augmentation of the city watch, necessarily involved the Board in an expenditure of *nearly twenty five thousand dollars*, to which it is confidently trusted their fellow citizens will submit with that magnanimity, which has so peculiary characterized them, on all similar occasions. Excepting the solitary contributions from Boston and Richmond, in Virginia, already acknowledged, amounting to *two hundred and fifty dollars*,* the Board have received no eleemosynary aid tow-

* Of the sum here alluded to, two hundred dollars were transmitted from Messieurs James and J. H. Perkins, of Boston, by the hands of Messieurs Grant Forbes and Co. of this city; the other fifty dollars were received from a gentleman in Richmond, Virginia, by the hands of Messieurs Bailey and Bogert.

ards the public exigencies. Voluntary assistance not being proffered, they did not conceive it just to call on their fellow citizens individually—most of whom had to struggle with all the inconveniencies and losses attending removal and the consequent derangement of the regular course of business.

The meetings of the common council being only weekly, the peculiar situation of the city, from its exposure to fire and robbery, in consequence of the evacuation by its inhabitants, rendered it expedient to invest the Board of Health, whose meetings were daily, with a superintending and controlling power over the watchmen and firemen. The board of course paid the utmost attention to these departments, and it is a circumstance of peculiar felicitation, a fact highly honourable to the character of our city, that not a single fire, burglary or robbery, of any consequence, has happened.

To the fidelity and good conduct of the officers of the watch and watchmen, to the care and precaution of the chief engineer, and the indefatigabe vigilence and attention of the special justices of police, the Board deem it their duty to make the most ample acknowledgments. Nor can they omit to mention, in terms of the highest approbation, the unremitted attention of the city inspector in arranging the business and executing the orders of the Board, in all its multifarious details—of the superintendant and commissioners of the Alms-House, in alleviating the distress and administering to the wants of the poor and afflicted—of the medical gentlemen attached to and employed by the Board, who spared no exertions and who shrunk from no danger, in the discharge of their hazardous duties—and generally of the officers of the city and persons in public employment, with whom the Board had official connection, with scarcely a single exception.

The Board will on a future occasion, submit to the proper authority, such measures, as, in their opinion, may

appear necessary to be adopted, in order to prevent as far as human means extend, a recurrence of the calamity recently experienced. In the mean time they earnestly solicit a free communication of the sentiments of their fellow citizens on this interesting subject.

The Board would do injustice to their feelings, did they not, on this occasion, recommend in the most earnest manner, the destitute widows and orphans of the deceased, to the special benevolence and protection of their fellow citizens. Nor can they omit, in this public manner, to offer up the incense of grateful hearts to the Sovereign Ruler of the Universe, in whose hands are the issues of life and death, for the manifestation of his divine mercy and goodness, in preserving their health and lives amidst surrounding scenes of disease and mortality.

By order, and in behalf of the Board.

DE WITT CLINTON, Pres.

JAMES HARDIE, Sec'ry.

THE CITY INSPECTOR'S

Report.

THE City-Inspector has the honour to report, that in conformity with the wishes of the Board of Health, Bellevue Hospital was finally closed on Saturday, the 28th of October. From its opening on the 9th of September to that day, the number of patients admitted amounted to 175

Of whom the malignant cases were	149	
Other diseases,	28	
		175

The deaths, which occurred, were as follows:

Of malignant fever,	52	
typhus fever,	3	
dysentery,	3	
diarrhœa,	3	
pneumonia,	1	
phthysis pulmonalis,	1	
epilepsy,	3	
cholera infantum,	1	
diseases unknown,	2	
	79	
Discharged cured.	106	
Total,		175

The Physicians of the hospital remark, that only ONE

person died, who was admitted on the first day of disease. Four of the patients were, on closing the hospital, sent to the city hospital, cured of fever, but convalescent from chronic diseases.

Of the extreme cases died	
within 24 hours after admission, ...	5
12 hours, ...	6
6 hours, ...	3
1 hour, ...	6
10 minutes, ...	2
	22

nearly one-third of the total amount of deaths.

The ratio of cures from malignant fever to deaths by the same disorder is very nearly two thirds. which, considering that most of the patients were sent there in the last stage of disease and death, reflects the highest credit on the practice of Doctors Walker and Winfield, the visiting and resident physicians.

Accompanying this report is the return of the physicians, with the list of patients admitted into the hospital during the present season, likewise a schedule of the state of the hospital for the year 1803; by which it appears, that the hospital on that occasion was opened on the 12th day of August, and closed on the 7th of November, during which period were admitted

Of malignant fever patients,		170
Of various other diseases,		21
	Total,	191

The deaths which occurred were,

Of malignant fever, ...	100
phthysis pulmonalis, ...	1
diarrhœa, ...	2
	130
Discharged cured, ...	88

Of whom were sent to the City Hospital,	3
to the Alms-House,	10
	13

on the 7th of November, when the hospital was closed.

A comparative view of these tables shows, that the present season, although nearly one month shorter, has been proportionably more active, and that the success attending the practice of the hospital has been greater this season than the former: as the number of deaths in 1803 considerably exceeded one-half of the cases, and, as before remarked, during the current year, amounted only to about one-third.

The City Inspector wishes it to be understood, that the comparison is made from no invidious motive, and without the most remote idea of reflection on the former services at the hospital, but solely for the satisfaction of the Board, and to furnish data for reflection and calculation, whether the treatment of this awful malady is not better understood, and that a reasonable hope may be entertained, that at no distant day it will be divested of its horrors, and become more controllable and less mortal, by the skill and experience of medical professors.

By the return from the Marine Hospital it appears, that from the 18th day of July to the 28th of October, the number of patients sent from this city, amounted to 64

Of whom died of malignant fever, .	28	
Discharged cured, ...	30	
Remained of chronic complaints, .	6	
Total,		64

The total number of cases reported at the Office from the 5th of September to the 25th of October inclusive, amounted to 600

The total number of deaths which occurred in this city and at Bellevue Hospital during the same period, as published in the daily bulletins, was 249

To which are to be added the deaths that have happened since the reports were closed, and which have been announced in the bills of mortality amounting to . .	13	
	——	262

Making in all, 262 deaths of malignant fever.

The total number of cases reported in 1803 appears to have been 1639.

The deaths by malignant fever, which occurred the same year, amounted to 606.

In closing his official report for the present season, the City-Inspector begs leave to submit a few remarks respecting the establishment at Bellevue—the result of his observations and experience.

The buildings called hospitals erected at Bellevue appear to have been set up on the spur of the occasion, and on the presumption that the fever would never recur again. Fatal experience has proved otherwise, and points to the conviction that we may expect repeated attacks from this insidious disease. The wards, the one appropriated for the men especially, are every way inadequate to the wants of the patients or the comfort of the nurses and physicians. The buildings are on too contracted a scale—of materials too slight to repel the summer heat or autumnal cold. The crouded state of the hospital, during the last season, must have had an unfavourable influence on the spirits of the patients. Those newly arrived were evidently depressed by the surrounding scences of malady, and the groans and shrieks of convulsed and dying subjects. The senses were evidently offended, and the atmostphere rendered impure in consequence of the wards being so overcrouded. More extensive accommodations are absolutely necessary against another season; which it is confidently trusted that the Board will, at all events, provide.

To render this establishment more extensively useful and to relieve such persons as may be in ciscumstances to

pay for comfortable accommodations, a pay hospital, with suitable distinct apartments, might be advantageously erected. The difficulty of providing for strangers and single gentlemen, labouring under malignant fever, in private families, has been sensibly experienced—such persons are competent and willing to pay liberally for genteel accommodations, were such provided, and there is no doubt that such a branch of the establishment, if not productive, would at least not become burthensome, and would be highly creditable to our city.

Perhaps in regarding the proposed improvements at Bellevue Hospital, it might be of moment to consider, whether a change of the establishment to some other ground appertaining to the Corporation, would not be eligible. The scite of Bellevue might, in all probability, be sold for a sum adequate to very extensive improvements. The accommodation of poor families in suitable buildings, is a part of the whole establishment, which will also deserve the contemplation of the Board, and it is submitted whether the present assylum ought not to be preserved until more permanent buildings can be provided.

All which is respectfully submitted.

JOHN PINTARD, City-Inspector.

New-York, 12th Nov, 1805.

A LETTER FROM

THE HEALTH OFFICER

To The Board of Health.

A LETTER

FROM

THE HEALTH OFFICER

TO

THE BOARD OF HEALTH.

THE HON. DE WITT CLINTON, PRESIDENT, AND THE MEMBERS OF THE BOARD OF HEALTH.

New-York, December 19, 1805.

GENTLEMEN,

The late melancholy distress of our city while it has called up the feelings of humanity has excited the public attention to the probable causes of the calamity—this subject has frequently exercised the judgments of many, and while a contrariety of opinions has been held, the laws endeavouring to provide against such evils have always supposed that *internal* causes as well as *external*, frequently produced the terrible effect. Your wishes and request, which I respect, and a desire that the public may know as much on this subject as they can, have induced me to state such facts as will show, *that whatever may have been the cause of our late epidemic, it did not arise from any neglect in the performance of duty at the quarantine-ground, nor did it come through that channel.* I perform this service the more readily, because with the attempts to prove the importation of the disease, private insinuations are made and listened to, injurious to the health department, and designed to operate against me.

When a law enjoins the performance of certain duties, and prescribes the line of conduct of the public officers un-

der it, if they punctually perform all these injunctions, and faithfully fulfil all their duties—if they extend the performance of the letter so as even to reach the spirit of the law—if they do more than is necessary to secure the former, that cavillers themselves may be satisfied, then are they entirely vindicated to their own consciences, and to the public—and even if the law should be utterly insufficient to accomplish the objects proposed, still are they completely justified.

The candid enquirer after truth in this case will distinguish between the law and the officer, and he will never blend the two together.

The exclusive importers, who reject all internal causes of disease, ought also to look at the different quarters by which it may, according to their judgment and theory, invade us —they ought to advert to the chances of bringing disease in foul clothes, and by the persons of men, from other places, as well as the Quarantine Ground—if disease can come from infected places abroad, and at a distance, it assuredly can come from like places at home, and close at our doors—New-Haven, Providence, and Philadelphia had the disease as soon as, and perhaps before, New-York. —The communication between these places and our city was open and constant, and the access easy—Why not bring it from them, as well as from the Quarantine-Ground? The danger of bringing disease from those places, is acknowledged, by the Board of Health taking measures to cut off the communication between them and New-York. These measures were strictly attended to on the sea board, but I am not so certain that they were attended to on the land side. Candid people, who hold to the theory of exclusive importation, acknowledge the force of these observations, but others, not so just, are anxious to bring the disease only by the Quarantine Ground, the better to establish a particular point of theory, and perhaps to injure the Health Officer.

As attempts have been made by some to prejudice the public mind against me, because I believe in other causes of disease than importation, I hold it right here to say, that I consider myself merely an executive officer, and whatever the law directs, I have ever, and shall ever perform, to the best of my ability, with fidelity and care. As an officer, I obey the law in all its prescriptions, without examining its merits or demerits.

I believe, as I have ever declared, in the propriety of cleansing foul ships—of purifying and changing bad air, and of preventing impure materials or diseased persons from going up to a large city. But I believe too, that diseases originate at home, when they are often looked for from abroad and this I believe in my conscience was the case last season. But to show, that whatever was the cause of the disease or wherever it may have arisen, it did not come through the Quarantine Ground; let us attend to the following facts.---

No vessel from a place where pestilential fever prevailed at the time of her departure, or where the place was supposed sickly, has approached the city of New-York, nearer than the quarantine ground, from the first of June to the first of October; nor has any vessel, on board of which any person has died with pestilential or any other fever, from the West-Indies or any other part interdicted by law, or been sick with the same, gone up to the city of New-York this whole season—no sick person, of any description, has been suffered to go into the city of New-York, through the summer or autumn, except one person, an invalid and with a chronic complaint, and who had been in the marine hospital a month before he left us.

No foul materials, dirty clothes, or articles interdicted by law, have gone beyond the public store at the quarantine ground, from the first of June to the first of October—nor has any of the officers, seamen, or passengers belonging to, or arriving in the vessels which have been detained at quarantine, had malignant fever, except in one single instance,

about the 12th of September, as I shall state in another place. *Nor can any of the cases of fever which have occurred in the city, be traced to any of the vessels kept at quarantine, or to any other vessel, or person, or thing, which has passed through our hands.* Of the many seamen and passengers who had arrived from the West-Indies, and other ports subject to quarantine of course, and indeed all foreign ports, not one was seized with malignant fever before the 30th of August, and not till after the disease had been decidedly in the city forty-two days, and not till after *seven* persons (citizens) had been sent from New-York to the marine hospital with the complaint—and excepting *this individual*, not one of those who came to us had been for many months before, either in the West-Indies, or on board of any infected vessel.

At the quarantine ground there have been constantly from the first of June to the first of October, a considerable number of vessels; frequently during that time, from forty to fifty, and on the last day of September, sixty—All of these vessels had either lost some one or more of their crews, or had come from a sickly port; many of them (twenty-four in number) were under the necessity of coming to the public wharf, where some of them lay the greater part of the season; one vessel 106 days, another 44 days, and a third 38, a fourth 37, and so on—Of these, a considerable number hove down, others threw out their ballast, or cleansed their limbers; some were sheathed or graved, and all of them overhauled more or less; and of the many officers, seamen, and workmen, ship-carpenters, caulkers, riggers, coopers, sail-makers, blacksmiths, &c. not one was in the smallest degree indisposed, or took any sickness by connection with those vessels; nor has any of these persons that I know of, been indisposed, except one carpenter, who took sick some weeks after he left the quarantine ground, and died in the latter part of September in New-York; having exposed himself in the poisoned air of the city. Of the pilots who have

brought these infected vessels into port, and had frequently slept on board of them, very often one night and sometimes two, before they came to at quarantine, not one (or any of their families,) has been in the smallest degree indisposed from any connection with such vessel. Of those attached to the Health-Officer's department, boatmen, orderlies, nurses, washerwomen and attendants, not one has been sick from any infection, or from any connection with the sick or infected vessels. Of the lighterers employed in carrying goods to the city, or bringing cargoes to vessels at quarantine, not one was in the smallest degree indisposed till the 24th or 25th of September, when one of them was taken with fever, which left him in a few days—Another was seized just after the first, and died the 2d of October. Neither of these had had any connection with any foul ship to which they could attribute their complaint; but they took it from having had a daily intercourse with the eastern part of the city, and from being under the necessity of going into houses and stores in that quarter, and staying longer in them than they had been accustomed to, by reason of the want of hands to receive their goods, in consequence of the desertion of that part of the city.

The masters of vessels, passengers, and seamen, with their baggage, going from the quarantine ground, pass in one or two particular boats, and land at the Whitehall wharf, and almost all the sick people sent to the marine hospital from the city, embark at that slip, and yet none of the persons going or passing in these boats, or conveying these sick, have been in the slightest degree indisposed; nor was there a single case of fever in the neighbourhood of the Whitehall, till the 19th of September, and long after it had appeared in several other parts of the city, distant from that quarter. The first case of malignant or yellow fever which came from on board of a vessel at the time of her arrival at quarantine, was on the 12th of September; all the other cases of fever which had come from on board ship before,

were of the remitting type, were freed from the strong symptoms marking yellow fever, and in a day or two after admission, assumed the intermitting form, and were all cured by the bark. The sickliest vessels which have arrived this season, have been from our own country, and had no intercourse with West-Indian or other supposed infected ports. From these facts, you will see that no injury has been suffered by any infection coming into port, and operating upon those who are below the city; nor has any arisen in the track of communication between the quarantine and the city, or from the communication itself, in any form, or in any place. If it had arisen from the communication, it would have appeared first, and most, among people on that track; among those *going to*, or *residing at* Whitehall—but the fact is directly the reverse; the people on that route have been altogether well, and that neighbourhood was the last to suffer, notwithstanding the number of sick brought to it, on their way to the quarantine ground.

I shall now relate the names and dates of admission of the different patients with malignant fever, and the places from which they came. I go into this detail, that you may judge whether the disease went from the quarantine ground to New-York, or came from the city to us. Although there is good reason to suppose that the disease in question was in the city before the beginning of July, and though from the testimony of others I believe it, yet from my situation on Staten-Island, I can only speak of what I there saw, and what came to us. It admits, however, of no controversy, that the persons from Maiden-lane in July, had malignant fever, and four people were in succession seized with the same symptoms, and came at different times with the same complaint. These men had no connection with shipping, and it was denied by those who had not seen them, that their complaint was malignant fever, because it could not be traced to any vessel; but to deny the truth of a position or

fact, because it does not agree with our theory, is to shut the door at once on reasoning.

All those who did see these men, agree that their disease was malignant fever, and those who did not see them, cannot be so competent to decide. The two first who came from Maiden-lane, were *Christopher Hibborn* and *William Aylsbury*—They arrived on the 18th of July—On the 30th of July *Mr. Dougherty* was admitted; he came from Water-street, between the Coffee-House and Pine-street. This man was readily acknowledged to have malignant fever, because it was expected to trace it to shipping—it was said he had intercourse with an Irish ship at quarantine; there is however no proof of this, and the strong probability is that he had not, as well from the affidavits which have been taken, as from the declarations of the officers and men to that purpose—and even if he had intercourse with the ship, he could have gotten no disease from her, for she was healthy—had been so during the whole voyage—came from an healthy port in Ireland, and all the passengers and people have continued healthy to this day, as far as I know—during Dougherty's supposed visit or visits to the quarantine ground, no one was sick with fever, either in the quarantine road, or the hospital, nor had any one been yet sick with this complaint in either of these places, for it was before the time that Hibborn and Aylesbury were admitted—But Dougherty had no direct or personal communication with any vessel at quarantine.

On the 7th of August, *Isabella Adams*, from Chamber-street, was admitted with malignant fever. No intercourse with shipping has ever been intimated in her case. August 16th *Mrs. Phyfer*, from Water street the next door to the corner of Wall street, came down. She had been ill five or six days before her admission. She had no connection with shipping, or any intercourse with any person or thing from any ship. August 20, *Jamas Laughan*, from Maiden-Lane, and on the 23d, *Andrew Stayley* from the

same place, came to us. Here then are *seven* persons from the City, admitted with fever, before a single sailor has even *sickened* with the complaint. On the 30th of August, *Joshua Haines*, *a seaman*, was admitted; he had been in port since the 15th of August, had arrived in an healthy vessel from an healthy port, and did not arrive till after several persons had sickened and died with fever, both in the city, and at the marine hospital. On the 1st and 2d of September, *Alfred Preston* and *William Frazer*, house-carpenters, were admitted—the one resided in *Division* and the other in *Chapple* streets; both of them had worked at the same time at the new houses at and near the corner of Wall and Water streets, neither of them had had any intercourse whatever with either ships or seamen.—On the 3d *David Pymer*, *his wife* and *two children* were admitted; all of these were but slightly affected, except one of the children, who died with malignant fever; they came from the lower end of Pine-street. On the 4th, *Jacob Christopher*, a seaman from on board the brig Columbia, from Boston, lying in the Coffee-House-slip. On the 6th, *Charles Everitt*, *labourer*, from the Bear-Market.—On the 7th *Matthew Burke*, seaman, from the schooner Eliza, coaster; *Richard Thompson*, labourer, from Front-street, and *Ann Brady*, from Depeyster-street. On the 8th, *Charles Diven*, labourer, from Elm-street, *Eustace Long*, labourer, Rider-street, *Henry Blackman*, Pearl-street, *Mrs. Beekman*, foot of Wall-street, and *Richard H. Midge*, seaman, from the schooner Weymouth, a coasting vessel, at a wharf on the North River. 9th, *Stephen Fenlar*, Fly-market. 10th, *Jonathan Campbell*, Pine-street. 12th, *Daniel Cox* and *John Haidley*, seamen, from the ship Flora, at Gaine's wharf. On the 15th, *James Keaugh* and *Richard Adams*, from the corner of Pine and Front streets. On the 16th, *John Marino*, seaman, from the ship Delaware, from Hull, at Rector-street wharf; 20th, *James Develine* and *child*, from corner of Pine and Front streets; 23d, *Samuel*

Munkley, from the ship Selemo, from New-York, outward bound. 24th, *Robert Davis*, labourer, Pine-street, and *Charles Fanning*, Fly-market. 25th, *Daniel Burton*, labourer, Depeyster-street, *Charles Corvel*, labourer, Georges's-street wharf, and *Mrs. Develine*, corner of Pine and Front streets. 30th of September, *William Bonant*, labourer, James-street, and *Leonard Doven*, labourer, from James-street. On the 2d of October, *John Lawson*, labourer, from James-street, was admitted ; the 5th, *John Tindle*, from the Fly-market ; 9th, *William Logard*, labourer, from New-York, place of abode not known ; 15th, *Thomas Smith*, seaman, from the ship Earl of Lansdale, arrived within a fortnight from the West-Indies : 28th of October, *Thomas Hamilton*, from Water-street, labourer.

You have in this detail *forty-five* patients—of these *ten* were seamen ; and of these ten, but three had been in the West-Indies, or had had any intercourse with any foreign port, from which malignant fever is supposed to come—of these three, *one* arrived in August, from an healthy port, in an healthy vessel, and not till after several had died with yellow fever ; one came into port, and was immediately taken into the hospital, and the *other* arrived in the latter end of October—No one will for a moment suppose that either of these introduced or propagated yellow fever.—Of the remaining *thirty-five*, *three* were *women*, *three children*, and *twenty-nine men* ;—of these last, *twelve* were labourers, the greater part, if not all, having been at sea, but *none of them within several months previous to their coming into the marine hospital, and none of them having the smallest idea, of having contracted the disease, by any intercourse with any person, or thing coming from on board a vessel, or from abroad.*—You will observe that the first fifteen persons sent down (with the exception of *Isabella Adams* and *Joshua Haines*) were from Maiden-lane, and a particular neighbourhood in Water-street ; which neighbourhood did not exceed two hundred yards from the one extremity to the

other. The circumstance of so many sickening in one house and within so narrow a compass in Water-street, and the disease having appeared in a former year *first* in that very neighbourhood, and in every year of pestilence, *always* first shewing itself in situations precisely similar, establish the position of a domestic origin. Nor can it be pretended that the communication between the quarantine could produce it *here*, because this was exactly the place where, of all others, the communication was the least, nay there could be none at all, for there were no stores directly behind where Mrs. *Phyfer* and *Frazer* and *Preston* took sick. Nor had any of these 35 patients been at the quarantine* at any time of the summer previous to their admission, nor had any of them any connection with infected ships or diseased persons. You see then that West-India vessels did not produce it, for but *one West-India* vessel had but *one* sick with malignant fever, while *three coasters* and *two European* vessels sent down *seven* patients. You see from this statement, and from the experience of this season, that *ships* have been freer from disease than *houses*; that *seamen* have been incomparably healthier than *citizens;* and that the W. India vessels sent up from quarantine, have been less infected than our own coasters—does this prove that the evil came from the quarantine ground? Let candor judge.—Had it arisen from West-India vessels, it must have appeared sooner on the Long-Island shore, where there were more of these vessels, than in the East river, and as soon in the North river, where nearly as many lay as on the East side of the city. Had the infection extended itself from these, or other vessels in the East river, then the persons on board of the vessels along side the wharf, the cartmen working on the quays, and the merchants and their clerks in the stores in South-street, would have been first seized, and in succession, as the poison passed along; but none of these

* Unless you except Dougherty.

were affected at all. The line along the river was healthy till you approached the evils which were entrenched a little farther in. Then you came to the seat of pestilence; and when you consider the nature of the occupations of all those who sickened and died from Wall-street to the Fly-market in Pearl-street, and those who sickened in Water-street, you will not attach blame to ships.

It will not do to say that the air was bad, and thus was the conductor to some evil secretly introduced; for this is giving up almost the whole of the question. How came this air so bad? How came it more vitiated and within so small a compass? If it were bad sooner in Water-street, than in Front, and still much sooner than in South-street, it must have arisen from other causes than shipping; it must have arisen from the influence of the atmosphere on local impurities---and no one can point to the person or thing bringing this evil to *that* neighbourhood.

I shall now consider the only rumour that has any thing like a specific form; it is what you have on your files, and given on the 6th of September, stating, "that Patrick Benson, who is a dealer in rigging, went frequently to the "quarantine ground, and as Benson told the deponent, two "or three times a week for the purpose of buying rigging, "sails, &c. and brought them to the city; that the deponent lives at 132 Front-street, and Benson in the cellar of "the same house; that about two or three weeks ago (the "information being given Sept. 6th) Benson brought up at "least two cart loads of rigging, &c. old sails, and old coats, "and deposited them in the cellar of that house, and that "Benson took sick yesterday (Sept. 5) but is better this "morning; that the deponent has seen great numbers of "working men go down, as they said, to the quarantine "ground and return as riggers and stevadores from Mr. "Englis who keeps a boarding-house at the foot of Pine "and Front-streets."

It is intended by this vague statement, to convey an insinuation that the quarantine communication being too

open, permitted dirty old clothes to come up and that they made Patrick Benson, and perhaps others, sick. Let us hear what Patrick Benson himself says. " Patrick Benson, dealer in rigging, &c. being duly sworn deposeth and saith, that he has been employed in buying old junk and rigging for some months past, and that he always bought the same at, and in the city of New-York, and never on board of vessels in the stream, or from along side of the wharf. The deponent further saith that he never went to the quarantine ground for the purpose of buying rigging but once, and that at this particular time he did not buy any thing, but only inspected some old junk on the public wharf in the presence of the officer of the customs, not being able to agree with the owner in the price. That this deponent afterwards bought this same junk from a man who had sent it to the White-hall, which man had, as he was told, a regular permit from the custom-house to inspect the same. That the above deponent was several times at the different ferries at each side of the quarantine ground during the summer, but that he never went inside of the quarantine ground, without a regular permit from the health officer. That he was permitted to work on board of vessels after he left the city in September, and never before, and that after this time he did not return to the city but twice 'till the fever had disappeared, and at each time he had permission to come up. The deponent further saith that he never was on board of any vessel at quarantine, for any purpose whatever, before the 6th of September, and that he never knew or heard of any person holding intercourse with ships or the quarantine ground, but by the permission of the health officer. The said deponent further saith, that all his family were well during the whole season, excepting himself, who was, from fatigue, indisposed on the evening of the 5th of September, but, on taking a vomit, was entirely relieved, so as to go to work on the 6th, and to remove to Staten-Island on the 7th. The said deponent further saith, that he never bought any clothes of any

description at the quarantine ground, or old clothes, elsewhere, within two years last past."

his
PATRICK ⋊ BENSON.
mark.

Sworn 11*th Dec.* 1805,
before Dewitt Clinton. (Copy.)

But riggers and stevedores, it is said, *went without permission to the quarantine ground.* This is denied. They never entered the quarantine ground without permission. They might have gone whenever they pleased, to either of the ferries on each side of the quarantine ground, and no one has the power, or the right to prevent it. They might probably have gone in considerable numbers there, because many hands were absolutely necessary, to enable the merchants to repair, and load their vessels, and these people often returned to the city, not being able to get the enormous wages they wished. But they never entered the quarantine ground, or left it, without permission. And when they had worked on board of infected vessels, they never immediately returned to the city, and not without the master, or employer, or leader of the party, giving security, and being answerable for their return, if necessary. I must remark that the merchants have frequently suffered by the indiscretion of some people in the city, who being entirely ignorant of the arrangements at quarantine, represented every part of the ground and the establishment, and every vessel in the roads, as equally infected and equally dangerous to deal with. They represented the danger of even the atmosphere blowing over one vessel and tainting another. These are the people who have raised the wages of men working at the quarantine ground. None of these men, supposed to have so improperly passed, have either received, or communicated disease. Nor did any captain, or supercargo, or passenger, go from an infected vessel, without being under an obligation, either not to go into the city, or if he were permitted to enter the city, to return within a limitted time: and as no injury has arisen, and

no one has violated his obligation, it is fair to conclue that no evil went from the quarantine ground to New-York. It behoves those who assert, or suspect that there was any improper communication, to prove their assertion, or to give the reasons for their suspicion, and more especially what they know, or have heard, respecting any thing of the kind in the night time. If any one believing in the danger arising from a breach of the revenue, or health laws, were to know of such violation, especially in the night time, and were to conceal it from the proper officers, he would be guilty of great neglect of duty to the public, and might almost be esteemed *particeps criminis*. We have happily this season, detected all that infringed the quarantine laws.

This unlimitted communication then did not obtain, for it could not have escaped the strict care and scrutiny of the custom-house and quarantine officers, or the vigilant attention of the board of health.

I must now for a moment advert to the story of rags from Algesiras, against which a prejudice has been raised. It so happens, from the dates of occurrences, that the rags would be clear from any imputation of blame, even if they had been dirty; *but they were clear and perfectly innoxious.* They had been prepared in the way they always are for the psrposes of commerce; that is, after being first washed clean, dipped into, or through a strong lime water, or an alkaline solution, then dried and packed in bags or bales. These rags thus prepared, were shipped some time last sprng from Leghorn, on board of an English vessel for Liverpool or London. The vessel was captured by a Spanish privateer and taken into Algesiras, where the vessel and rags were bought by the agent of Mr. J. Hurtin of this city. The vessel had an health bill from Leghorn, and one also from Algesiras. She arrived here in August, after a passage of fifty-six days of mild weather, during which the hatches were always off in the day time, and the people almost constantly over the bags. The crew was healthy, and had been so du-

ring the whole voyage, and the rags dry and in good order. When the bags were ripped open they gave out a white inodorous dust or powder—this powder was lime. These rags were landed on the 13th of August, at the end of Coenties wharf, were there from 8 o'clock in the morning 'till 12 at noon of the same day, and only for the purpose of being weighed; they were then taken on board a vessel bound to the eastward. A sample bag had been at Mr. Hurtin's store, two days previously to landing the rest, and was then taken, away. No person has received any injury from these rags nor possibly could, for they were clean and as inoffensive as any article in the city.

I have now clearly shewn as far as negative proof can go, *that whatever might have been the cause of the late epidemic, it did not arise from any neglect of duty at the quarantine ground*, NOR DID IT COME THROUGH THAT CHANNEL.

I cannot conclude this communication, gentlemen, without offering my tribute of gratitude and thanks to that Providence which has so happily preserved your lives and health during the late pestilence. May you long be spared as blessings to your country!

With much respect,
I have the honor to be
Your obedient servant,
JOHN R. B. RODGERS.

A LETTER FROM

Dr. EDWARD MILLER,

RESIDENT PHYSICIAN,

TO

HIS EXCELLENCY GOVERNOR CLINTON,

DATED

New-York, January 6, 1804.

A LETTER FROM THE RESIDENT PHYSICIAN TO HIS EXCELLENCY GOVERNOR CLINTON, DATED

New-York, January 6, 1804.

Sir,

I have been honored with your excellency's letter of the 26th ult. which, by some accident of the post-office, did not come to my hands, till the day before yesterday. I greatly regret the delay, which has taken place in transmitting an account of the late malignant disease in this city; but I rely on your goodness to excuse it, when you learn that your intimation on the subject was the first notice I received, that either the desire of the governor, or the custom of my predecessors had made such a report a part of my official duty.

The commencement of the disease took place about the 20th of July; and, from that time, it continued to prevail, in a greater or less degree, till the end of October. The number of deaths in this city amounted to five hundred and three; those at the hospital of Bellevue to one hundred three, and those at the Marine hospital on Staten-Island to sixty-eight; making a total of six hundred and seventy-four. To this should be added an indefinite number, about fifty or sixty, who fled from the city, and died of this disease, in the neighboring country and villages.

The first public alarm arose from some fatal cases, at the Coffee-house slip, and in that neighborhood. About the same time, the disease was discovered in many other parts of the city, without any known intercourse or communication between the persons, who fell sick. Although the number of cases, even at the worst periods of the epidemic, could never be pronounced to be great, especially if compared with some preceding seasons, they were certainly more generally diffused and left fewer parts of the city exempt

than on any former occasion. Broadway, and some of the adjacent parts of the town, retained their healthy character. The streets lying near the margins of the two rivers, and some of those in the upper parts of the town, which are principally inhabited by indigent, uncleanly and dissolute classes of the community, suffered the worst ravages of the disease. The alarm of the inhabitants was very suddenly produced; and the suspension of business and desertion of the city, far exceeded what had been ever experienced in preceding seasons.

As to the source from which this epidemic was derived, your excellency is well acquainted with the diversity of opinions, which still subsists in the United States. The question whether the disease was introduced from abroad, or generated by domestic causes, has been discussed, in no former season, with more animation and inflexibility.

Those, who contend for the foreign origin of the disease, believe in the importation of it, by some vessel, or vessels, which arrived at this port early in July. Three vessels are mentioned, the *Hibbert*, the *Gypsy* and *La Victoire;* the two former from Europe, and the last from St. Domingo. The particular circumstances of each of these ships, shall be stated in order.

The British ship *Hibbert* arrived from Portsmouth (England) on the 4th July. Every person on board was in perfect health, and had been so during the passage of fifty days. This ship, as it afterwards appeared, contained a great deal of filth, which, for a long time, had been suffered to accumulate, while she was employed in transport-service. Though this filth had remained inoffensive in the mild climate of England, and, likewise, during the voyage (for no sickness had occurred on board) the Hibbert did not lie more than two weeks at Ackerley's wharf, in the very hot weather of July, before she emitted a most noisome smell, and several persons engaged in removing the rubbish and filth from the hold were seized with all the symptoms of yellow fever. This happened about the 10th of July.

The British ship *Gypsy* arrived on the 3d of July, from St. Ubes in Portugal, laden with salt; every person on board was in perfect health. St. Ubes was entirely free from any malignant or epidemic disease at the time of her sailing, which was regularly certified by a bill of health. The Gypsy had no sickness on board, while she lay at St. Ubes, during the voyage thence to New-York, nor until seventeen days after her arrival at this port. All these circumstances are attested under the oath of the captain. After lying seventeen days in this port, she became sickly, and lost a large portion of her hands by the yellow fever.

The French ship *La Victoire*, on which the principal charge of importing yellow fever has been laid, arrived from Cape-Francois on the 12th of July. Every person on board was in perfect health. She had sailed from Dunkirk on the 10th of March; after a voyage of forty-one days, she arrived at Cape-Francois with a cargo of dry goods: she lay at Cape-Francois two months and a few days; and then set sail for New-York, where she arrived at the time before mentioned. During the voyage from Dunkirk to Cape-Francois, during the time she lay in the harbor of Cape-Francois, and during the voyage from the Cape to New-York, no sickness occurred on board, except one case of dysentery at Cape-Francois, which terminated in recovery. The Cape, at that season, was remarkably free from yellow fever; the bill of health brought by this ship purported that it was entirely so; and the same was confirmed by a surgeon on board. The cargo consisted of coffee, put up in close casks, sugar and lignumvitæ. She was detained for some days at the quarantine ground, for the purpose of inspecting the coffee, which was found in the best condition. While she lay at the quarantine ground, she was ventilated, white-washed, and the clothes and bedding washed and aired. The day before the permit was given for proceeding to New-York, a block fell from aloft on the head of a sailor, which hurt him considerably, but not so much as to make it expedient to detain him

at the Marine hospital. No other sickness had taken place in this vessel up to the 20th of August, when this account was circumstantially delivered under the signature of the captain. All the leading facts now stated had been given by him to the health officer, under oath, at the time of his arrival. I have been the more particular in this account of *La Victoire*, as she was the vessel, on which the charge of importation chiefly, and almost exclusively, has been made to rest.

From these facts, it seems to result, that, if our malignant disease was really introduced from abroad by any of the vessels, charged with having imported it, the introduction must have taken place either from parts of Europe, where the disease did not exist, and in vessels, which had no sickness on board till some time after arrival here, or in a vessel from St. Domingo, on board of which no case of yellow fever had appeared, and which arrived at New-York, under very extraordinary circumstances of health and cleanliness.

The circumstances of the ship *Hibbert*, are important and instructive. They prove, that a foul ship from an English port, where yellow fellow fever is never known, with all the crew and passengers in a perfectly healthy state, may become, after lying some time at one of our wharves in very hot weather, a source of the most malignant disease. And they likewise prove, that filthy vessels, even from the most healthy ports, are often as proper objects of examination, detention and cleansing, as those from the West-Indies.

The different opinions concerning the origin of yellow fever, would seem, on a slight survey of the subject, to lead to very different means of prevention and public safety; but more attentive consideration will impress the opposite conviction. Both parties insist on the necessity of detaining and cleansing foul and sickly vessels; the importers of yellow fever from abroad, for the purpose of excluding contagion—and the advocates of domestic generation, for the purpose of removing that filth, which, by the operation of heat, is so readily converted into poisonous vapour.

As to the removal of nuisances in the city, and rendering it as clean and pure as possible, all parties, even on their own principles, ought to be equally agreed. Yellow fever is known to spread and prevail, in certain seasons, in this city. But it is also known, that, at such times, it cannot spread and prevail in the adjacent country and villages. In every season of this epidemic at New-York, multitudes have fled to the country, to Newark, Elizabeth-Town, Brunswick, &c. where they have been seized with the disease, and have died, without communicating it to any inhabitants of those places. The difference of condition and circumstances between such towns and this city, which, in the one case, annihilates the disease, at the death or recovery of the patient, and in the other, causes it to spread and become epidemic, must entirely consist in the absence of nuisances from the former, and in the accumulation and predominance of them in the latter. It seems, therefore, to follow of course, that the great desideratum towards banishing yellow fever from New-York, however it may be supposed to originate, *is such a degree of cleanliness and purity as may be found in the villages of the neighborhood*, or as near an approximation to it as possible. Such a system of police as this, vigorously adopted and enforced, aided by the regulations of the Health Establishment on Staten-Island, which are most strictly and vigilantly executed, would, in my judgment, completely secure this city from the ravages of the yellow fever.

With sentiments of the highest respect,

I have the honor to be,

Your Excellency's most obedient

and humble servant,

EDWARD MILLER,

Resident Physician.

REPORT

ON

The Malignant Disease,

WHICH PREVAILED IN THE CITY OF NEW-YORK,

IN THE AUTUMN OF 1805:

ADDRESSED TO THE GOVERNOR

OF THE

STATE OF NEW-YORK.

BY EDWARD MILLER, M. D.

Resident Physician for the City of New-York.

☞ *DISTANT readers will be better enabled to understand this report by adverting to the following particulars. The City of New-York lies in N lat.* 40 42 8; *W. long.* 74 9 45; *at the confluence of the river Hudson and Long-Island sound or the East river; and on the southern and narrow extremity of Manhattan-Island, which is about* 15 *miles in length, and from one to two in breadth. The site of the City, as it originally stood, was very irregular, being broken into hills and declivities, and indented with small rivulets or creeks, skirted with marsh. Many of the hills are levelled; but the marshy grounds, though covered with houses and pavement, are still low and moist. The City is about* 27 *miles from the ocean, and is washed on both sides with water of great depth, whose current is very rapid, whose tide ebbs and flows about* 6 *feet, and which is nearly as salt as that of the neighbouring sea. On both sides of the City considerable encroachments have been made on the water by artificial ground, the whole extent of which may be computed at not less than* 132 *acres. Of this,* 90 *acres lie along the East river, and* 42 *along the Hudson. The portion of it on the East river forms that part of the City where malignant fevers have always first become epidemic and chiefly prevailed. The wharves and docks are constructed of logs and loose stones. All the fresh water used by the inhabitants is procured from wells within the City, and is now become extremely impure. The population of New-York may be estimated at about* 80,000.

A LETTER FROM THE RESIDENT PHYSICIAN TO HIS EXCELLENCY GOVERNOR LEWIS.

New-York, Jan. 12th, 1806.

SIR,

THE Malignant Disease which prevailed in this city, for a considerable part of last autumn, having ceased about the beginning of November, it becomes my duty to lay before your Excellency such an account of it as my official situation has enabled me to collect. I undertake this task with the more readiness, and shall examine the subject with the more attention, as this disease has lately acquired great additional importance from the frequency of its recurrence, the extent of its ravages, and the new and alarming points of view in which it is now considered by the nations of Europe. The embarrassments of our commerce on this account, in foreign ports, have been increasing for several years; they are already become oppressively great; they are likely hereafter to become still greater; and nothing but a thorough investigation of the subject, and the adoption of a wise and mature system of measures, will be sufficient to ascertain and set in operation any adequate means of relief.

In former seasons, it has been usual to observe sporadic cases of this disease for several weeks before the commencement of the epidemic. This was remarkably verified in the late season; and such cases deserve the more attention as they furnish the best means of calculating the probability of approaching pestilence. Accordingly, one case of a decidedly malignant character was observed in the month of June; several took place in July; a still greater number in August; and at the beginning of September, they had become so numerous as to ascertain the existence of the epi-

demic. Throughout September and October, the disease continued to prevail with more or less severity according to the fluctuating states of the weather; but towards the close of the latter month, the coldness of the season had evidently checked its progress; and at the beginning of November, the city was nearly restored to usual health.

During the early period of the epidemic, nearly all the cases took place on the eastern side of the city, in Front, Water and Pearl streets, and principally below Burling-slip. They afterwards became more generally diffused. About the 20th of September, they began to prevail near the North River.* On the whole, the low grounds on the margin of the two rivers certainly produced a chief part of the cases. The number of deaths of the disease in the city, amounted to about 200; those at Bellevue Hospital to 52; and those at the Marine Hospital, sent from the city, to 28. The number of cases of malignant fever reported to the Board of Health amounted to about 600. It is proper, likewise, in estimating the extent of the epidemic, to notice an unascertained number, probably about 40, who after their flight from the city, died in various parts of the country.

The source of this disease forms a most interesting subject of inquiry; on the success of which must depend all rational and adequate means of preventing and eradicating the evil. After a long and careful investigation of the subject, I cannot hesitate to conclude, that *a pernicious exhalation or*

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* *A similar extension of the disease, in the epidemic of* 1803, *was ascribed by many to the removal of shipping from the East to the North river. As no such removal to that part of the city took place in the late season, it is necessary to explain the fact in some other way. This becomes very easy, when it is recollected that the* made ground *on the North river is much less extensive, and the materials composing it much less foul and corrupt, than that on the East river. The miasmata come to maturity on the one side two or three weeks sooner than on the other.*

vapour floating in the atmosphere, is the primary and essential cause of this disease. In order to produce this vapour, it is necessary that there should be a concurrence of heat, moisture, and a quantity of decaying animal and vegetable matter. It is therefore exhaled by heat from low and moist grounds, overspread with the corrupting offals of animal and vegetable substances, from such substances collected in large masses, or from any place where the process of putrefaction is going on to considerable extent. This exhalation likewise abounds more in some situations than in others. It is more frequently and copiously produced, and more highly concentrated, in warm and tropical countries than in high latitudes and frozen regions. It prevails and exerts its pernicious influence peculiarly in certain climates, seasons, and local situations. It is generated more in summer and operates more powerfully in autumn than in the other seasons of the year; and it is uniformly more frequent and virulent in sea-port towns, in situations along sea-coasts, in plains, and near rivers, lakes, marshes and swamps, or wherever stagnant waters are found, than in the interior, high and mountainous districts of the country. It is undoubtedly one of the most universal causes of disease in nature. However diversified in quantity or virulence by local circumstances, or by varieties of climate, season or the condition of society, its effects in one degree or another are nearly co-extensive with the habitable parts of the globe.

While the noxious exhalation just described, when existing in a high degree of virulence, is considered as forming the primary and essential cause of our disease; it is proper, in order to be well understood, to notice the operation of certain *secondary* or *exciting causes*. These are exposure to heat, fatigue, cold, intemperance, fear, anxiety, &c. some of which are, in general, immediately instrumental in bringing on the disease in persons predisposed to it by the agency of the atmospheric poison. The

noxiousness of this poison, by avoiding exciting causes, may often be long borne without falling into illness; and hence the operation of exciting causes in suddenly producing the disease is often so striking as to lead many entirely to overlook the effect of the principal agent.

The sources of pernicious exhalation in this city are unhappily very numerous and difficult to correct. Some of them are evils of such magnitude and extent, that it requires resolution to consider them, and not to relinquish, in despair, the work of reformation. The mode of constructing our wharves and slips would almost induce the belief that they had been designed for repositories of filth and nurseries of disease. The *made ground* on the East river is pregnant with almost annual pestilence; it is now become enormously extensive; it was originally composed of the most corrupt materials; from its relation to the river, and the condition of the wharves and slips, it must constantly remain moist; from its surface being nearly level, it receives and retains the collected filth washed down from the higher grounds; and besides all this, the offensive and putrid matter, which a crowded population must necessarily deposit, and which already underlays a great proportion of this part of the city, incessantly augments the mass of corruption. Can it possibly excite surprize, that the scorching heat of summer, operating on the complicated pollution of this ground, formed of an aggregate of nuisances, and still the receptacle of numberless others, should exhale poison and death into the atmosphere which stagnates over its surface?

As the materials of putrefaction and the degrees of heat, in a large city, greatly exceed what is found in the adjacent country; so the diseases arising under such circumstances must be proportionably more malignant. The pestilential fevers of our city differ only in grade from the bilious and remittent fevers of the country. They prevail in the same climates; they come on at the same season of

the year; they are chiefly disposed to attack persons of the same constitution; they commit their ravages on the same organs of the body, and produce symptoms differing only in degree; and they decline and disappear at the same season and under the same circumstances. In the city we often see in the same family and under equal circumstances of exposure, the malignant forms of pestilence and the mild forms of remittent fever; and in the country, while the great mass of cases are usually mild, we occasionally meet with some which exhibit the violent attack, the intense malignity and the rapid dissolution, which more frequently mark the pestilential fevers of the city.

Besides the points of analogy just mentioned, there is another equally or perhaps more remarkable. The remittent fever of the country, and the malignant fevers (denominated *yellow*) of our cities, have a similar irregularity which generally characterizes them, and leads strongly to the inference of the similarity of their origin. In the districts of the country where remittent fevers prevail, and in the cities which produce malignant fevers, we find these diseases, in seasons apparently similar, and even in the same season, often exhibiting a singular local unsteadiness in their appearance, extent and violence. In the operation of the causes which produce them, there is something remarkably contingent and desultory. Remittent fevers will prevail sometimes in one district of a low country and sometimes in another; while the whole extent of these different districts seems to be equally liable to the disease, and no adequate cause can be assigned for the visitation of the one, and the escape of the other. In like manner, some of our cities are invaded by pestilence, in unfavorable seasons; while others, apparently just as liable to be invaded, escape.

For these reasons, as well as many others which my limits will not allow me to state, I conclude that our late epidemic, and all the preceding similar ones, have been of domestic

origin, and, of course, nearly related to the remittent bilious fevers of the country.

From this simple and consistent view of the subject, the attention of some has been unfortunately drawn aside by the mistaken opinions of the *importation of the disease from abroad*; and *the propagation of it by contagion.*

I. As the question of contagion, in this disease, is important and fundamental, and as the affirmative has been asserted with much confidence, it becomes necessary to consider this point with great attention.

But, before proceeding to offer reasons in detail against the contagiousness of yellow fever, it is proper to premise some general observations on the subject.

A contagious disease is distinguished from all others by the property of generating or secreting a matter, which, applied by contact, or inhaled with the air by near approach to the sick or to inanimate substances charged with their effluvia, successively reproduces the same disease. As this contagious matter is secreted by a morbid action of vessels, or a peculiar process of the disease, forming a specific and essential part of its character, it must always be generated when such disease exists; and being generated, and then duly applied or inhaled, its action is altogether independent of external circumstances, such as the state of the air, &c. and must always take effect, unless there be something in the condition of persons exposed to it, which renders them unsusceptible of the impression. This unsusceptibility, depending upon peculiar and unusual circumstances, (except in the diseases which attack the same person but once,) must of course be extremely rare. The small pox affords an example of this operation of contagion. If forty persons, who have never undergone small pox, be closely exposed to the effluvia of a number of patients lying ill of that disease in the ward of a small pox hospital, thirty-nine certainly, and probably the whole number, will be infected. This is an example of a contagious distemper. The contagious matter

is the constant and universal product of the disease; and when produced, it generally reproduces itself in such as receive it; provided they have not been (in the case of small pox) previously subjected to its action. The principle of unsusceptibility cannot reside in the surrounding air, but is to be sought for in the body that resists the contagion. There are no facts to prove that pure atmospheric air is a neutralizer or destroyer of contagion; every day presents instances of the reverse; and when diffused through an extensive space, air renders it harmless, not by immediately decomposing, but by diluting and dissipating it. On the other hand, none of the truly contagious diseases derive any additional force from impure air; for the greater contagiousness of confined air in cases of this sort, arises merely from the concentration of a greater quantity of contagious matter within a small space. The application of these principles to the subject in question will presently be seen.

It is proper likewise to premise, that the attack of many persons in the same neighbourhood, or even of whole families, by a reigning disease, affords no proof of contagion*; for the intermittent and remittent bilious fevers of the country, which undoubtedly are not propagated by contagion, often attack families and neighborhoods so generally as scarcely to leave healthy persons in sufficient number to attend the sick.

* *In the course of the autumn, about five years ago, ninety-eight out of a hundred of the labourers employed at the* Onondaga Salt-Works, *in this State, were attacked with bilious fever. The two who escaped, probably owed their exemption to extensive ulcers with which they happened, at that time, to be affected. That situation is unusually sickly in the summer and autumn; and a large proportion of the cases of fever which occur there, become malignant and fatal. By the death of several persons, within a few years, who held the office of Superintendant of the Works, and who fell victims to this malignant fever in close succession, that station is now justly regarded by the people of the neighbouring districts, as extremely hazardous.*

The want of due discrimination between the effects of an *impure atmosphere* and of *contagion*, is one of the most lamentable deficiencies in the history of diseases.*

The agency of contagion in the propagation of our malignant disease is rejected for the following reasons.

1. No relation is observed between the source of the pretended contagion, and the spreading of the disease to individuals or families; nor was there ever any foundation to attempt progressively to trace the propagation of it to any number of persons, from the first case, or from any single point of infection. If the first ten or twenty cases, which occur in any season, be strictly scrutinized, most of them are found, in their origin, to be distinct and independent of one another. Instead of pervading families, or creeping slowly from one neighbourhood to another, in the track of infection, as is invariably the case with contagious distempers, this disease is found scattered at distant and unconnected points, and cases start up singly in situations where contagion could neither be traced nor suspected.† The pro-

* *Some epidemic diseases, such as small pox, &c. are considered, by universal consent, as* contagious; *others, such as bilious remittent fevers, &c. are considered as* non-contagious. *It becomes, therefore, extremely interesting to ascertain the criteria by which this discrimination among epidemic distempers may be clearly and promptly made. The want of precision on this point has produced much collision of opinion and much absurdity of conduct among physicians and others. The most obvious criterion, and that which is most generally recognized by the common sense of mankind, is the effect of personal intercourse between the sick and the well. Where a disease is truly contagious, this intercourse cannot fail to disclose the danger, which was long ago correctly stated in poetical language:*

> "Quo propior quisque est, servitque fidelius ægro,
> "In partem lethi citius venit."
>
> *Ovid. Metamorph. lib.* 7.

† *Not only the dispersion of the cases is adverse to the doctrine of contagion; but the appearance of them in groups in some*

portion of single cases in the midst of families is always great; and the instances of any large proportion of families being attacked were comparatively very rare in our late epidemic. It appears from the records of this epidemic, that there were thirty-one streets of the city, most of which continued to be crowded with inhabitants, in which only a single case in each occurred; and in the mass of six hundred cases, reported to the Board of Health, there were only thirty-five houses in which more than a single case was found. If the number of deaths should be supposed to afford better ground of calculation, it will be found that there were forty streets, and those generally crowded throughout the season, in which only one death in each took place; not more than three died in one house, of which there were only two instances; and, during the whole epidemic, there were only twelve instances of two persons dying in one house.* The great mass of persons attacked with the disease, consisted of such as never had approached the sick, or any other assignable source of contagion; and, on the contrary, as will presently appear, great numbers were exposed to close intercourse with the sick, without injury.

instances is altogether as much so. Many of the most judicious of our citizens were convinced of the origination of the disease from domestic filth in the year 1798, *by the following occurrence. Between twenty and thirty persons, at the commencement of that destructive epidemic, in a small neighbourhood at the lower end of John-street, were suddenly seized with the disease in one night, in consequence of a blast of putrid exhalations from the sewer of Burling-slip. The persons attacked were only such as lived directly to the leeward of this blast from the sewer; while others, close in the vicinity, but not exposed to this current, entirely escaped.*

* *From these reports to the Board of Health, it results that upwards of five hundred, out of six hundred cases of malignant fever which occurred, were single in the respecsive families; and that more than three-fourths of the deaths which took place in the city, were likewise single in the respective families in which they occurred.*

In order to explain this scattered, remote and unconnected occurrence of cases, the advocates of contagion are obliged to resort to the extravagant supposition of the contagion being diffused through an extensive range of atmosphere, or, to use their own singular phrase, of an *inoculation of the atmosphere* by the effluvia of the sick, or of the infected cloathing or bedding which were supposed originally to have introduced the contagion. It is scarcely necessary to observe, that this is a new and unheard of doctrine, utterly unknown and repugnant to all the principles and laws of the communication of contagion, which have been sanctioned by the experience of ages, and entirely subversive of all the hopes the contagionists themselves can repose on a separation of the sick from the well, or on the most rigid regulations of quarantine. This doctrine is likewise inconsistent with itself. If contagion from a single source can extend itself so far, what would become of the inhabitants of the city generally, when, in the progress of the epidemic, cases are so immensely multiplied, and the disease so extremely diffused? If this contagion can exercise such a destructive activity at a distance, after being so much diluted in the air, what must be the effect of approaching near to the source? If a contagion really existed, capable of retaining its virulence, after such extensive diffusion in the atmosphere, it would bid defiance to all the barriers of quarantine, be incoercible by human means, and finally would depopulate the world. Another inconsistency is equally glaring. If this effluvium from a sick body, or from foul cloathing and bedding, can be supposed to vitiate the air to such a distance around, it must, after such extensive diffusion, become light and fugitive, and liable to be blown away by the first breeze. But, how does it happen that this same space of air, after the inhabitants are fled, the sick removed, and houses shut up, continues, till a change of season, to be permanently noxious? Nothing can account for this local, stationary and inexhaustible poison, but the exhalations from the masses of

filth and pollution overspreading a large area of ground, forming a vast hot-bed of putrefaction, incessantly teeming with miasmata, and thereby, in despite of currents of air, loading with the seeds of disease every successive portion of atmosphere that sweeps or stagnates over the pestilential surface.

2. The pretended contagion is admitted to produce no effect in our climate, except in particular situations, and at a particular season of the year, when an impure and noxious atmosphere, which ought to be considered as a sufficient cause, is acknowledged to exist. But to consider a disease as contagious, which at the same time exhibits no appearance of that quality but in certain climates, in such climates only in certain places, at such places only at certain seasons, and even at such seasons only after a particular degree of heat and moisture, is undoubtedly to lose sight of all the established properties and laws of contagion.

3. It is admitted that the disease does not spread when the sick are removed from the impure air in which it was contracted. By breathing this impure air, without exposure to the effluvia of the sick, persons are every day attacked; while, on the contrary, without breathing it, however exposed to such effluvia, no person is attacked. The conclusion, therefore, is irresistible, that the impure air is the cause.

4. No communication of the disease was ever observed in yellow fever hospitals, situated at a small distance from the cities to which they belong. No exception to this has ever occurred in any of the numerous seasons of this pestilence at our hospital at Bellevue, the Marine Hospital at Staten-Island,* that of Philadelphia, or any other in the United

* *The two pretended cases of contagion at the Marine Hospital on Staten Island, one in the year* 1799 *and the other in* 1800, *were evidently fevers produced by the poison of typhus, modified by the season. Nature is too simple and uniform in her operations to constitute a disease contagious, and yet only so once in a thousand instances.*

States; provided the malignant air of the city had been avoided. The force of this fact seems never to have been duly considered or appreciated. The numerous retinue of medical attendants, nurses, washerwomen, servants, &c. which belong to a hospital, must be known to every body. How greatly they are all exposed to contagion, if it could be supposed to exist in this case, is equally known. The most malignant degrees of the disease are constantly found in these institutions. The exposure of physicians and their assistants is well understood. The duty of the nurses leads to an incessant and unreserved intercourse with the sick. They pass the greater part of their time, and sleep in the apartments of the sick, the dying and the dead.* In lifting, undressing, dressing, administering remedies, and many other modes of assistance, they are very often in actual contact, and commonly within a small distance of the patients. They receive and carry away all excrementitious discharges. Several persons are employed in washing the foul clothes and bedding of the sick and the dead. Not only all these have invariably escaped the disease, but likewise all the persons occupied in the removal of the sick from the city to the hospital, who in this service went without reserve into the most pestilential quarters of the town, entered the most filthy apartments, and lifted the sick into their carriages dressed in their foulest clothes, and sinking under the worst degrees of the disease.†

* *The nurses at Bellevue Hospital became so entirely free from all apprehensions of the contagiousness of this disease, that they often slept on the same bed with the sick; and it happened more than once, in the course of the season, that a nurse, overcome with fatigue and want of sleep, threw herself in the night, for a little repose, on the bed of a dying patient, and remained there asleep till the patient was dead, and it became necessary to remove the corpse.*

† *In order to account for the escape of these persons, which is indeed wonderful, it is proper to state that they all resided during the season at the Alms-House, an elevated*

In order to account for these facts, the advocates of contagion contend that its activity is confined to *impure air*, and that by this alone it can be *conducted* to the objects of its attack. Our hospital at Bellevue, however, is not so constructed as to allow the supposition of great purity of the air; and indeed the state of the land-air in the months of August, September and October, cannot be considered as pure, in any part of our country. But admitting the highest possible purity of air in these hospitals, the operation of contagion, if it existed there, could not by such means be avoided. When the naked hands of physicians and nurses are in contact with the skin of the patient, scorched with febrile heat, or bedewed with the matter of perspiration, how can pure air be interposed to arrest the passage of contagion? When they inhale, as they often do, the breath and effluvia of the sick, no man can doubt that such air is sufficiently impure to be the *conductor* of contagion, if it really existed. In all contagious diseases, contact and immediate inhalation of the effluvia and breath of the sick, are supposed to constitute the greatest possible exposure; and in such cases, it is plain, the interposition of air, pure or impure, must be equally unavailing to arrest the evil. Yet in these hospitals, persons not only escape this danger, but none was ever known to be infected by it.‡

5. The extinction of the disease by cold weather, is an insuperable objection to the doctrine of its propagation by

and healthy part of the city, and consequently were only for a short period, at any one time, immersed in the noxious atmosphere.

‡ *In the epidemic of the year* 1798, *seven persons died of Yellow Fever in our Alms-House. It was ascertained that they had taken the disease in consequence of going out and breathing the atmospheric poison diffused through the more contaminated districts of the city. Although the house then contained about* 800 *persons, no communication of contagion took place.*

contagion. That the disease in reality depends upon an atmospheric poison, appears from the fact, that all the means which operate to arrest and destroy it, such as cold, heavy rains and high winds, are merely atmospheric agents. The healthy temperature of the human body is the same in all climates and seasons; and febrile heat is not less in winter than summer. Consequently, the morbid process by which the matter of contagion is generated, is under no controul from atmospheric temperature. Hot climates and seasons are universally held to be unfavorable to the spreading of contagion. The reason is obvious. In warm weather, the doors and windows of the apartments of the sick are kept open, and ventilation is carried to the highest degree. At this season, the effluvia of the body, whether in health or disease, are sooner dissipated, and, of course, can less readily adhere to clothing, bedding, walls, furniture, &c. so as to be retained, and become noxious. In conformity to this, typhus, which is propagated by a poison produced in the clothing, bedding, furniture, &c. of persons living in filthy and crowded apartments, generally prevails and spreads much more in winter, when such apartments are deprived of ventilation. On the contrary, yellow fever, arising from a deleterious principle floating in the atmosphere, and produced by the operation of solar heat upon vegetable and animal filth, ceases to prevail soon after this heat is reduced so low that it can no longer exhale a sufficient quantity of the miasmata of putrefaction. But if this disease depended upon contagion, instead of disappearing at the accession of cold weather, when houses are more closely shut up, it would be then more certainly communicated, and more widely destructive.

6. Yellow fever does not prevail in countries, where the heat is not sufficient to exhale the miasmata of putrefaction, in the requisite quantity and virulence. We hear nothing of this disease in Great Britain, Ireland, or France; though it is well known that persons ill of it, and shipping

in which it has recently prevailed, very frequently arrive in their ports. The boarding houses in the sea-port towns of these countries, in which seamen arriving from the West-Indies are generally lodged, are known to be often extremely filthy and filled with impure air; as appears from the prevalence and ravages of typhus; yet this impure air in those countries cannot *conduct* the contagion of yellow fever.

7. Many persons, who had contracted the disease in New-York, died of it at Boston, Albany and other cities at a distance; many likewise at Greenwich, Brooklyn, and other villages in the neighbourhood. In no instance did these victims of the epidemic communicate contagion. In all these places, the air at that season must have been very *impure*; at Albany and Brooklyn violent remittent fevers were at the same time extremely prevalent; and yet this impurity of the air did not serve as a *conductor* of contagion.

8. Among the early cases of this disease, in the late season, which were, as usual, most virulent, very striking examples of its non-contagiousness were displayed in some of the most crowded quarters of the city. In the beginning of September, a considerable number of sick, who had taken the disease on the eastern side of the city, were removed to the western side; where they died with the most pestilential symptoms. In a house in Cedar-street, where two patients expired under the worst symptoms of this description, the *beds of the deceased, in a very few hours after their death, were occupied by the survivors

* *It is proper to observe that, since the first publication of this letter, a contradiction of the statement concerning the beds has been received from one person, and a confirmation of it from another. That particular circumstance is, however, immaterial; as it is admitted on all hands that no contagion arose from either of these malignant cases.*

of the family. Yet in none of these numerous instances was any contagion communicated.

9. The universal exemption of the physicians of New-York, amounting at least to 50 or 60 persons, from the late disease, is also irreconcilable with the doctrine of its contagiousness. I have not heard of any physician in Philadelphia, New-Haven, Providence or Norfolk, suffering illness from their late epidemics. It is known that physicians neither use nor possess antidotes. Their exposure to the breath, effluvia and contact of the sick, was almost incessant from morning till night. They employed no precaution of dress or covering, no fumigation, no means of destroying, neutralizing or obviating, in any manner, the effluvia of their patients. The dissection of bodies dead of Yellow Fever, if contagion had existed, would also have formed another source of danger. Many of the physicians of this city were frequently engaged in this mode of investigating the disease, and minutely examined bodies in a very advanced state of putridity. The more happy escape of physicians in the late than in former epidemics, is to be attributed (under the protection of Divine Providence) to their having secured a residence in the higher and safer parts of the town, and to the comparative infrequency of their visits to the districts of envenomed atmosphere; owing to the early desertion of these districts by the chief part of the inhabitants. It is understood, at the same time, that our physicians, in their confidence of the non-contagiousness of the disease, generally passed more time in the apartments of the sick, and were in the habit of making a more deliberate and minute examination of the cases which fell under their care, than in preceding epidemics.*

* *The exemption of the nurses from disease, who attended the sick* in the city, *was also very remarkable. Upwards of sixty persons were employed, by the Board of Health, to perform this duty. Only four of these died; two others only were*

10. The failure of every attempt to arrest the progress of the disease, by the separation of the sick from the well, is also incompatible with the doctrine of contagion. Besides the numerous ineffectual attempts in this city, the utmost endeavours were used, with the same result, by the Board of Health of Philadelphia, whose members had been purposely selected for this object, from those who embraced the opinion of the importation and contagiousness of the disease. It would be fortunate, indeed, for the purpose of arresting Yellow Fever, if its progress depended upon contagion. This appears from the example of the small pox, a disease whose contagion is more active, steady and permanent than any other in the world. By a system of quarantine, extremely simple and very little burthensome, this distemper is excluded, or, if introduced, immediately arrested and banished, in Boston and other cities of New-England, where its admission and circulation are prohibited by law.

11. The inconsistency and contradiction which constantly attend the application of the doctrine of contagion in this disease, make it altogether inadmissible. To explain one set of facts, it must infinitely transcend the contagiousness of small pox; to suit another, it must sink infinitely in the opposite direction. On some occasions, it is more subtle, penetrating and rapid than the electric fluid; on others, more sluggish and dormant than the grossest matter. Contrary to all other noxious substances, it is often more destructive at a distance, than near to its source; for at one time, it cannot reach a single individual among a great number surrounding the bed of the patient, and in frequent contact with his person, while at another, it must strike at the distance of several hundred feet.* THE

sick, and recovered. And it appears, upon inquiry, that such as died or were sick, had been stationed in the parts of the city where the atmosphere was known to be most highly charged with the miasmata of putrefaction.

* *While it is admitted that contagion cannot operate in*

NOXIOUSNESS OF THE MIASMATA OF PUTREFACTION, EXHALED BY HEAT AND FLOATING IN THE ATMOSPHERE, EXPLAINS ALL THESE FACTS, AND RECONCILES ALL THESE CONTRADICTIONS.

If it were possible to add any thing to the evidence of these irresistiblœ facts, I might subjoin, that Yellow Fever cannot be considered as a contagious disease ;—Because, unlike all other contagious diseases, it has no specific character, no definite course or duration, and no appropriate, essential or pathognomonic symptom ;—Because, the supposed contagion rarely operates singly, and in general depends upon the co-operation of exciting causes ;—and finally, Because, the miasmata which produce this disease are more or less noxious as they are more or less concentrated, a property which does not belong to the specific poisons of small pox, syphilis, &c.

Under the conviction of these facts, I am compelled to conclude that our malignant disease is the effect of a noxious exhalation floating in the atmosphere, and that it is ABSOLUTELY AND UNIVERSALLY NON-CONTAGIOUS.

For the correctness of the facts on which this conclusion is founded, I appeal to my fellow-practitioners and fellow-citizens, who have been witnesses of the disease. For the application of these facts in the deduction of principles and opinions, I appeal to the judgment of physicians in every quarter of the world, where Medicine is cultivated as a regular science. And, especially, I would offer this appeal

Yellow Fever Hospitals, and while this inactivity of it is ascribed to the absence of impure air; it is, at the same time, gravely asserted by some that a person going on board of a vessel, lying in a situation where the air is much more pure than it can possibly be at a hospital, even though there exist no sickness on board of such vessel, may still derive contagion from it, and experience all the active and malignant operation of such contagion, notwithstanding this purity of the surrounding atmosphere.

to the liberal and enlightened physicians of Europe, who are sincerely devoted to the cause of truth and professional improvement, who, on this subject, have heretofore received much incorrect information, and who, as soon as they become convinced of the real state of the question, will, I am confident, exert the influence they so justly possess, in procuring from their respective Governments an abolition of the oppressive and useless restrictions of quarantine, which have been recently imposed on American commerce.

II. The second mistake concerning this malignant disease, which has been impressed on the minds of some of our citizens, is that of its *importation from abroad, and chiefly from the West-Indies.* This opinion is rejected for the following reasons:

1. The non-contagiousness of the disease must entirely destroy the belief of its introduction from abroad. It is impossible to conceive that it can be conveyed across the ocean, and propagated in the cities of the United States, unless it possess the power of successively re-producing itself by communication of contagion from one person to another.

2. If the alleged importation were possible in any case, it might happen at any season of the year. In this active sea-port, shipping from the West-Indies are very frequently arriving at all seasons; and it is known that yellow fever may be found in those islands at any period of the year, when they are visited by strangers from the higher latitudes: yet the pretended importation is always confined to that period of the summer and autumn, when local and domestic causes, sufficient to produce the disease, are known to exist.

3. If yellow fever could be introduced from abroad, it is impossible to explain its non-appearance in our sea-ports for a long series of years, when no means were used to secure its exclusion. For more than fifty years preceding 1795, no importation of the disease into this city was suspected; and it is indeed uncertain whether, before that year, the opinion

of its importation at any period of the eighteenth century, had attracted much attention. The advocates of importation generally assert, that periods of war in the W. Indies are most apt to occasion its introduction into this country. Yet we hear nothing of its being brought to this port during the war of 1756, or that of the American Revolution. In the former of these wars, the mortality attending the successful expeditions against Martinique, Guadaloupe and the Havanna, was almost incredible. Only a very small part of the victorious troops were alive three months after their conquests. Equally fatal were the malignant fevers of the West-Indies in the war of the American Revolution. Dr. Hunter* informs us, that of 5,000 troops who took possession of St. Lucie, scarcely a man of the original number remained at the end of one year; although the sword of the enemy had destroyed an inconsiderable amount. The mortality continued as great in the subsequent years. From the 1st of May 1780, to the 1st of May 1781, the number of dead was equal to the average strength of the garrison during the year. Of the troops sent from Jamaica upon the expedition against Fort St. Juan, scarcely a man ever returned. During this period, the intercourse between the West-Indies and this port, must have been extremely frequent. Doctor Blane† states, that in the course of the war of our Revolution, nearly 18,000 sick were landed at New-York from the British fleets; that 11 sail of the line arrived here early in September 1780, from the W. Indies; that 26 sail of the line arrived here at the same season in 1782, likewise from the W. Indies; and that from each of these fleets, a great number of sick, afflicted with malignant fevers, were sent to the hospitals at this place. It is also known that a similar fleet arrived here in the beginning of the autumn of the year 1781. During all this period, notwithstanding the ravages of yellow fever

* *Observations on the Diseases of the Army in Jamaica.*
† *Observations on the Diseases of Seamen.*

in the West-Indies, and the conveyance of so many sick to this port, we hear nothing of the importation of the disease. And yet, at that time, no quarantine-regulations existed.

The contingencies by which yellow fever might have been imported, through the medium of commercial shipping or of naval and military expeditions, if such importation were possible, must very often have occurred in a sea-port like this, where such extensive communication has been so long maintained with the West-Indies. A more frequent introduction of the disease, therefore, according to the doctrine of importation, as now held, must have been inevitable. But as this did not take place for such a length of time, and under circumstances so likely to produce it, we are warranted in the conclusion that importation is impossible.

On the contrary, as the history of pestilential epidemics in all ages and countries demonstrates that they are subject to frequent revolutions, as to the periods and places of their prevalence, the variety of their symptoms and the degrees of their malignity; it is much more easy to account for changes in such diseases, as they locally or periodically occur, than for any great diversity or fluctuation in the circumstances or contingencies, which determine their importation from abroad.

4. No importation of this disease, so as to become epidemic, was ever known in any port of Great Britain, Ireland or France. The vast amount of shipping, as was observed before, which arrive at those ports from the West-Indies, is well known; and, that they often arrive in a very sickly condition, is equally known. The filth and impure air of those ports are admitted on all hands, and the effects of them are experienced in the destructive fevers of a different description which frequently prevail; and yet, for want of the atmospheric heat and other local circumstances requisite in the generation of yellow fever, they are happily strangers to its epidemic prevalence.

5. The appearance of yellow fever in many of the interior

parts of the country, inaccessible to foreign contagion, confirms the opinion of its domestic origin, while it entirely invalidates that of its importation. There is not a State in the Union, which has not afforded evidence of the production of the disease, in situations where importation was impracticable. In the course of the late season, a malignant fever, in all essential points the same as our yellow fever, prevailed in many parts of this State, and caused more mortality, in proportion to the population of the district, than took place in this city. There can be no reasonable doubt, that the disease called the *Lake Fever*, in the interior of this State, possesses all the essential attributes of the yellow fever.

6. A comparison of the summer and autumn of the year 1804, with the corresponding seasons in 1805, will go far to shew the dependence of our malignant epidemics on the condition of the atmosphere, and, of course, to overthrow the doctrine of importation. The summer of 1804 was mild and cool, beyond former example, on all the Atlantic coast of the United States, lying to the northward of the Carolinas. In South-Carolina and Georgia, the heat was unusually great. All the Atlantic cities north of the Carolinas, without exception, entirely escaped the epidemic: whereas at Charleston and in some parts of Georgia, it prevailed with great mortality. On the contrary, the late summer was remarkable for the duration as well as the intensity of heat, along the whole of our coast. And the consequence was, not only that nearly all the Atlantic cities were visited with pestilence, but, what was still more surprising, that in several of them it made its appearance within forty-eight hours, or nearly, of the same time; an occurrence which cannot be explained on the contingency of importation, and is only to be satisfactorily accounted for from the state of the atmosphere.

7. The occurrence of similar diseases in other parts of the world, under similar circumstances, where contagion introced from abroad cannot possibly be suspected, is also adverse to the doctrine of importati on. In making the circuit

of the globe, on the parallels of latitude nearly or exactly corresponding with ours, we pass over countries which, from the earliest records of history, have been frequently visited with the ravages of this scourge. Spain and Italy afford striking examples. The city of Rome, in particular, though its elevated situation is generally salubrious, is annoyed by a marshy spot at the feet of two of its hills, along the margin of the Tiber, which has been sickly and pestilential from the origin of the city. While the streets on the hills, like Broadway and other high grounds in this city, enjoy a salubrious air, the spot of marsh just mentioned, together with a small extent of *made-ground*, (for the madness of *made-ground* has existed at Rome as well as at New-York*), corresponding with our marshy districts and vastly more extended space of made-ground, along the margin of the East-River, has produced, from time immemorial, malignant and mortal epidemics. And the medical historian of these facts, (the celebrated Baglivi) expresses his astonishment that so small a distance, as that intervening between the elevated and depressed portions of ground, should make such a difference in the qualities of the air. As the Tiber is not navigable for sea-vessels, the importation of their pestilential epidemics at Rome was never suggested.

8. The inefficacy of all the various modifications of quarantine hitherto devised in this country, confirms our disbelief of importation. In this port, as well as in Philadelphia,

**Proofs of this might be adduced from Lancisi and other medical writers of Rome. The following lines are sufficient to establish the fact :*

Hoc, ubi nunc fora sunt, udæ tenuere paludes;
  Amne redundatis fossa madebat aquis.
Curtius ille lacus, siccas qui sustinet aras,
  Nunc solida est tellus, sed lacus ante fuit.
Quà Velabra solent in Circum ducere pompas,
  Nil præter salices cassaque canna fuit.

Ovid. Fast. Lib. VI.

a rigid system of quarantine has been in operation for many years; and there is no doubt of its having been vigilantly and faithfully executed. Indeed, the experience of quarantine in the United States speaks little in its favor; for though, during the last ten years, it has been scrupulously enforced in several ports, we have heard ten times more of imported contagion and of its ravages, at these very ports, during that short period, than for an hundred years before, when no quarantine was in existence.

9. The entire want of all proof, and even of the least probability of the introduction from abroad of the germ of our late epidemic, gives the last blow to the doctrine of importation. The facts on this subject have been so clearly and minutely detailed by the Health Officer, that it would be superfluous to repeat them here.

The source of mistake, on the subject of importation, consists in not distinguishing *a febrile poison generated by heat and filth in a vessel*, from *contagion taken up in a foreign port, and successively communicated from one person to another*. The construction of vessels disposes them to the collection and retention of filth, and renders cleansing and ventilation extremely difficult. The quality of cargoes and provisions, the inattention of seamen to cleanliness, the crowded manner in which they often live, the unsuspected and inaccessible situations in which corrupting substances may lie concealed, render shipping, independently of the hazards of the element on which they move, the most dangerous of all human habitations. It is no wonder, therefore, that they should become unhealthy, when they pass into warm latitudes, or lie in our harbour in the hot season. In no situation is a malignant fever more apt to originate than in a ship. A vessel that never left our port, or that has remained in it for years, may become foul and thereby generate and emit a deadly exhalation. Whether malignant fever arise from filth ashore or on shipboard, the principles and process, by which the evil is produced, are still the same. On what ground

can a disease be said to be *imported*, which has no other relation to a foreign country, than that of being generated in a vessel which has lately visited that country? The foreign country, the outward and homeward voyage, are circumstances of no moment in determining the origin and character of the disease; to account for this, we must consider the filth, the moisture and heat, which, concurring to a certain degree, are destructive to man at all times, in all situations and under every condition. And a fever originating under such circumstances, can no more be pronounced *imported*, than a fracture of a limb happening at sea can be called an *imported fracture*.

It has been supposed by some, who regard only one aspect of the subject, that the doctrine of importation alone can explain the more frequent recurrence of malignant epidemics for the last ten years. But the difficulty still returns with unabated force; and it remains to explain, why importation has become so much more frequent and easy of late than formerly. If it be thought impracticable to throw light on that peculiar constitution of the air, which determines the prevalence of yellow fever at one time more than another; it is equally impracticable to ascertain the qualities of the air which produce malignant distempers of the throat, the dysentery, and other mortal epidemics, (which are undoubtedly of domestic origin) for a season, or for a term of years, and then allow them to disappear.

It has been said, that the belief of the yellow fever originating in this country, would be destructive to its commerce and prosperity. But if the appeal must be made to interest rather than truth, let us contrast the effects of the two opinions, as they influence our intercourse with foreign nations. By truly describing the disease, and exhibiting the proofs of its local origin and non-contagiousness, we convince foreign nations that it is a misfortune limited to ourselves, that it cannot endanger their safety, and that it only claims their sympathy and regrets. By asserting the importation and contagiousness of it, the evil immediately swells

to an indefinite and incalculable extent, and we alarm all nations with the fear of its being, in turn, exported to them. After the experience already gained, neither they nor we can cherish any rational hope of hereafter excluding it, by regulations of quarantine. Our intercourse with the West-Indies, and with all other tropical countries, will be daily extended, and if importation were possible, the chances of it will be every year progressively multiplied. On the ground of importation, unless trade be totally forsaken, our situation is hopeless.

In rejecting the doctrine of importation, the benefits of quarantine are by no means intended to be undervalued. The generation of pestilential disease in foul vessels is undeniable; they are certainly a very frequent source of sickness; and all persons concerned in shipping are interested in a careful examination of them. There ought to be some mode of ascertaining whether a vessel may be safely approached by people in business, or whether she may be likely to diffuse pestilential vapours among all who come within their reach. Quarantine is also one of the most humane regulations in favor of seamen, who are confessedly a very useful and necessary class of the community. It interposes between them and the carelessness or cruelty of their commander, and makes it his interest to preserve their lives and health. And while it might be organized so as to answer all these purposes efficaciously, it might also be properly stripped of its useless and burthensome appendages.

If the facts and reasonings, which I have adduced to prove the non-contagiousness and non-importation of yellow fever, be well founded, it results that our epidemics are local, domestic, and as incapable of exportation to foreign nations, as the bilious fever of the country. It is to be lamented that the reverse of this opinion has made so deep an impression in Europe; and that the Governments of that quarter of the world have suffered themselves so lightly and hastily to embrace doctrines and legislate on principles contradicted by all

former experience. It is now more than 300 years since they became acquainted with America. And although the first discoverers of the new world, as well as most succeeding adventurers, have largely shared the effects of the baneful climate of the West-Indies ; it is only of late that apprehensions have been entertained of importing into Europe the malignant fevers of those islands. The shattered remains of fleets and armies had often returned home to Great-Britain and France, in the most sickly state, after encountering all the horrors of yellow fever, without once communicating that disease. But what transmutation can yellow fever undergo in the United States, which renders it exportable to Europe from us, but not directly from the West-Indies ?

It affords some apology indeed for Europe, that the information concerning this subject, upon which they have acted, was derived from our own country. The acts of our State Legislatures, the proceedings of our Municipal Bodies and Boards of Health, the proclamations of our Magistrates, and a variety of other public documents, have all a tendency to impress the same opinion. We have held up to foreign nations, an indigenous and local disease, growing up from the infelicities of particular situations, or from neglects of police, and entirely incommunicable from one person to another, as highly contagious, capable of exportation to distant countries, and consequently alarming to the safety of the whole commercial and civilized world. We cannot transplant the disease from this city to the neighbouring villages of Greenwich, Brooklyn, or Newark ; and yet it is believed we can convey it 3000 miles across the pure air of the Atlantic. Whole hospitals of patients, labouring under the most malignant forms of the disease, with all the foul apparel, bedding, &c. polluted with the excrementitious discharges and other filth of the sick, the dying and the dead, cannot emit an atom of contagion ; and yet we pretend to dread the infectiousness of a sailor's jacket or handkerchief, or even of the cordage and timbers of a vessel. Under the

influence of this phantom of contagion, we have instructed the Europeans to enact laws and regulations, sanctioned by the highest penalties, which retard and oppress our commerce, and subject our shipping in their ports to the most grievous detention. To crown the whole of this injury and humiliation, we have instigated them to place the people of the United States, by late extensions of quarantine, on the same footing with the degraded and detestable inhabitants of Barbary, Egypt, Syria, the Archipelago, Constantinople and other parts of the Turkish dominions. And all this has been done, in defiance of clear and luminous facts, and in the face of long, reiterated and ample experience.

By discarding the bugbear of contagion, the origin and nature of Yellow Fever will be more truly ascertained; the means of personal safety more generally understood; and the measures necessary to improve the salubrity of the city more vigorously pursued. The public will no longer witness that desertion and misery of the sick, which have too often disgraced society, in every epidemic. The bosom of humanity will no longer be wrung with the sufferings of our fellow-creatures, driven, while under the pressure of this calamity, from every place of shelter, deprived of comfort, and abandoned to their fate, from the false impression of danger in affording them assistance. By telling the community the truth, we shall lessen apprehension and distress, we shall disarm the evil of half its power, and restore the ties of kindred, and of nature.*

* *The learned* Dr. Hunter, *one of the members of the* National Board of Health *of Great Britain, offers the following argument in support of his opinion of the non-contagiousness of Yellow Fever.* "*The strongest proofs of this, in my opinion, were to be met with in private families, where the son, the brother, or the husband, labouring under the worst fevers, were nursed with unremitting assiduity by the mother, the sister, or the wife, who never left the sick either by day or by night, yet without being infected. That such near relations should take upon them the*

It is surely time to investigate this subject with the deepest attention, and to adopt some adequate system of relief. The warning voice of history and experience loudly calls us to make every exertion to deliver our city from nuisances, which threaten to entail the miseries of an annual succession of malignant epidemics. WE LIVE IN THE LATITUDE OF PESTILENCE, AND OUR CLIMATE NOW PERHAPS IS ONLY BEGINNING TO DISPLAY ITS TENDENCY TO PRODUCE THIS TERRIBLE SCOURGE.† The impurities, which time and a police, rather moulded in conformity to the usages of more northern countries than to the exigencies of our own, have been long accumulating, are now annu-

office of a nurse, is matter of the highest commendation in a country, the diseases of which require to be watched with greater care and attention than can be expected from a servant. They are under no fears of the fever being infectious, and I never saw any reason to believe it to be so, either in private families, or in the military hospitals." That Dr. Hunter came to this decision, after a full and mature consideration of the importance of the subject, will appear from the following remarks: "There is hardly any part of the history of a disease, which it is of more consequence to ascertain with accuracy, than its being of an infectious nature, or not. Upon this depends the propriety of the steps that should be taken, either to prevent it, or to root it out. It is productive of great mischief to consider a disease as infectious, that really is not so; it exposes such as labour under it to evils and inconveniencies, which greatly aggravate their sufferings, and often deprive them of the necessary assistance. They are neglected, if not shunned; and at the time they require the greatest care and attention, they have the least."

Observ. on the Diseases of the Army in Jamaica, page 177 & 178.

† *To convince the reader of this, it is only necessary to remind him how near the cities of Philadelphia and New-York lie to the parallels on which Rome and Constantinople are situated. It is scarcely requisite to observe, that the ravages of pestilence in these ancient cities have far exceeded any thing which has occurred elsewhere, unless those of Grand Cairo should be supposed to equal them.*

ally exposed to the heats of a burning summer, and send forth exhalations of the highest virulence. The examples of similar calamities in many parts of the old continent, ought long since to have taught us lessons of wisdom. In the city of Rome, time and fatal experience pointed out the necessity of erecting extensive and costly public works, in order to deliver the inhabitants from the horrors of pestilence; and the air of that City was, at several periods of its history in alternate succession, observed to become pestilential or salubrious, as these public works were suffered to fall into decay, or were repaired and renewed.

The different opinions of the origin of Yellow Fever, offer us only the alternative of a more rigid quarantine, or of more vigorous internal measures. Every step of increasing restriction in our system of quarantine, has only served to shew more clearly the domestic origin of the disease. If an entire prohibition of West-India trade, or a prohibition during the summer and autumn, were imposed by law, the effect would soon be sufficient to banish every doubt from the mind of the public. How far the advantage of unanimous conviction might be supposed to countervail the burthen of such restrictions for a short period of years, I shall not undertake to decide.

But whatever opinion may be embraced, the present moment is certainly not the time for the indulgence of apathy or inactivity. If the legislature, in their wisdom, should still think that this disease is introduced from abroad, they are bound by the strongest obligations to extend the powers of quarantine, by additional restrictions. The conveniencies of trade are not to be put in competition with the ravages of yellow fever. If it be necessary to resign the freedom of commerce, or to incur the miseries of pestilence, let the former be freely abandoned.

It is likewise my duty, before I conclude, to suggest whatever it may be deemed adviseable to do towards the

removal of existing nuisances, and the improvement of the salubrity of the city. This task has been, in some degree, anticipated in my letter to Governor Clinton, after the epidemic in 1803. Unfortunately, some of the requisite measures will demand great expense, and must bring to a test the liberality, enterprize and public spirit of the city and State. Among the improvements of the most urgent and immediate necessity, I consider the following, to wit; *Water*, obtained from a distant source, of pure quality, and in quantity sufficient to allow a constant, plentiful, and increasing expenditure; *Sewers*, of such number, capacity and construction, as completely to drain all the low and marshy districts, to carry away all filth, and to be constantly washed by a brisk current of water; a new arrangement and construction of wharves, docks, &c. so as to face the margin of the two rivers with a stone quay, impervious to water; a prohibition to make a single additional foot of artificial ground on either of the rivers; a different modification of privies, which are every day becoming more and more an alarming nuisance, and will soon underlay with filth a large portion of the city; a better plan of paving, more particularly as respects the construction of gutters, *&c.*; the draining of all stagnant waters in the town and neighbourhood, the filling up, levelling and paving all low and depressed lots and places of whatever description; and a prohibition hereafter to inter dead bodies in any part of the city. Many other objects, which would require much minuteness of detail, likewise demand attention; and will acquire great additional importance from the rapid progress of building and population.

I have the honour to be,
With great respect,
Your Excellency's most obedient
And humble servant,
EDWARD MILLER,
Resident Physician.

Appendix.

UNDER this title, it is intended to lay before the reader some proofs and illustrations of the principles delivered in the foregoing Report, which could not properly be admitted into the letter itself, and which are too long to have been conveniently subjoined in the form of Notes.

On the analogy, as to localities and diseases, between the cities of Rome and New-York.

IT is from the south of Europe, and chiefly from *Spain* and *Italy*, that inquirers into the endemic diseases of the United States may expect to derive the most valuable lessons of time and experience. The writings of the Italian physicians in particular, are full of instruction on this subject; and it is to be lamented, that this instruction has not been more eagerly sought for, and more generally obtained by their American brethren.

By considering the following account of the localities and diseases of *Rome*, given by BAGLIVI, and comparing them with those of *New-York*, we perceive how exactly like causes will produce like effects, in the old and in the new continent.

" Ut res exemplo fiat clarior, exponemus breviter, " quæ nos Romæ circa aëris temperiem, & medendi me- " thodum quotidiano usu experimur. Aër Romanus " septem collibus, Orbis dominis, hodie interclusus, na- " turâ humidus est & gravis; experimento namque con- " stat, quod si quis paulo longius a frequentia tectorum " processerit, quantam cœli gravitatem atque intempe- " riem manifesto concipiet. Insaluberrimis Austri, Africi " atque Euronoti flatibus obnoxius: ab æstivis caloribus " interdum tantopere exardescit, ut mirum non videatur,

" si Consulibus L. Valerio Potito, & M. Manlio, Pesti-
" lentia orta sit in agro Romano, *ob siccitates & nimios*
" *solis calores*, teste Livio, lib. V. His aliisque de causis
" infra dicendis, Incolæ urbis temperamento præditi sunt
" melancholico, subfusco, & nonnulli subpallido cutis
" colore, habitu corporis macilento potius quam pingui;
" levi de causa capite afficiuntur, & iis morbis potissimum
" subjacent, quos aëris gravitas solet producere, sicuti
" sunt pulmonis vitia, febres malignæ, cachexiæ, pallores
" vultus, incubus, tabes & consimiles. Porro aër Roma-
" nus squallidus quoque est & insalubris, non quidem
" omnibus in locis, sed iis potissimum, quæ deficientibus
" ædificiis, pigro atque immoto aëre sordescunt; multo
" magis si Tiberi adhærent, vel convallium instar, mon-
" tibus obsepiuntur, aut exhalationibus subjacent quas
" veteres parietinæ, cryptæ, & antiquorum ædificiorum
" rudera emittunt. Ex quo patet Regionem Circi Max-
" imi, inter Palatinum atque Aventinum sitam, omnemque
" illum campum qui inter Aventinum, ac Tiberim, por-
" tamque Ostiensem, jacet, plane noxium esse & damna-
" bilem. Sed ut rem universim definiam. Quæcunque
" loca crebris ædificiis ambiuntur, atque editiora sunt, in
" septentrionem atque orientem spectant, & multum a
" Tiberi distant, salubriora: Contra, quæ sejuncta sunt,
" & remota a frequentibus tectis, situque sunt humili, ac
" maxime in convallibus, tum propiora Tiberi, in meri-
" diem atque occasum spectantia, minus salubriora judi-
" cantur: Quibus etiam in locis (quod sane mirum)
" brevissimi intervalli discrimine, hic aliquantum salubris
" existimatur aër; illic contra noxius & damnabilis.

" Insalubritatem hanc urbani aëris, fovet magna ex
" parte adjacens Latium; quod undequaque coronâ mon-
" tium circumcingitur, excepto tractu illo, quâ mediter-
" raneum vergit, ubi in planitiem desinit. Vetus enim
" Latium desertum feré hodie est & squallidum; Austri
" flatibus immediatè objicitur; & variis ejusdem in locis,

" insaluberrimus aër observatur, utpotè circa Ostiam & " Portum, æstivo præsertim tempore; quo quidem si " aliquis in præfatis aliisque Latii locis pernoctaverit, & " exinde urbem revertatur, corripitur statim maligna " febri, quam vulgo, ex mutatione aëris dicunt; estque " febris hæc sui generis, ab aliis febribus, alias agnoscen- " tibus causas summopere differens, tum in methodo cu- " rativa, tum in symptomatis eandem concomitantibus."

Georg. Baglivi Oper. Omn. pag. 157, 158.

Lancisi, in his valuable work *De Noxiis Paludum Effluviis*, confirms the facts stated by Baglivi, and adds many others which are extremely important. In his account of a malignant epidemic, in the summer and autumn of 1695, which ravaged a particular district of the city of Rome to such a degree as nearly to depopulate it, he traces the disease to its cause in the following words:

" Nemo sane luctuosa funera per id temporis Romæ con- " spiciens, fœtoremque in vicis illis persentiens, dubius " hæsit, quin causa malignarum, perniciosarumque febrium, " quæ publice vagabantur, fuerit multitudo stagnantium et " corruptarum aquarum, tum in scrobibus pratorum, tum " in magna cloaca, atque in fossa potissimum Hadrianæ ar- " cis. Tellus jam erat humida, cum Tiberis propter mag- " nam vim aquæ bis auctus est; atque ideirco non solum " scrobes, ac fossæ pratorum et Arcis exhauriri non potue- " runt; verum quod maxime aëris insalubritatem inducit, " sordes, quæ pluviis prolutæ everruntur, ac dilabuntur, iis " in canalibus atque in cloacis subsistere coactæ sunt. Si- " mul etiam per humiliora Leoninæ civitatis loca exunda- " vit, subterraneasque cellas, multosque pauperum puteos " hic illic contemeravit. Posthæc, negligentia eorum, qui " rebus publicis, atque eidem præsertim Arci præerant, nul- " lum studium purgandis hisce regionibus adhibitum fuit. " Hinc mira hæc proluvies in limosam paludem sensim in- " tra fossas scrobesque conversa, virescere, jam urgente

" æstu, fermentari, computrescere, variaque insecta admit-
" tere cœpit. His vero malis accessit etiam frequens affla
" tus Vulturni, austrinorumque ventorum, qui a medio
" Maio usque ad Septembrem identidem recurrentes, non
" tantum deteriori putredini immotarum aquarum, verum
" faciliori quoque sublimationi ac delationi malignorum
" effluviorum non in vicinas duntaxat ædes, sed etiam
" usque ad finitimas adversasque regiones, ansam præbue-
" runt."

Lancis. Oper. Var. Tom. 1. *p.* 189.

On the antiquity of the Yellow Fever.

It has been contended by some, that the yellow fever is a modern disease, and utterly unknown to Europe, except when imported there from America. A slight inspection of the writings of Hippocrates, who flourished upwards of four hundred years before the Christian æra, will be sufficient to prove that he was familiarly acquainted with it, and had observed it under its most malignant and fatal forms.

The two symptoms which are considered as most characteristic of this fever, are *yellowness of skin*, and *black vomiting*. A great number of passages might be adduced to shew that Hippocrates frequently met with these symptoms in the malignant fevers which fell under his care. I shall mention only such as are clear, pointed, and incapable of being mistaken. In the ninth section of his book of Crises, he lays it down as a maxim, that "*in burning fevers, a yellowness of skin appearing on the fifth day, and accompanied by hiccough, is a fatal symptom.*"* This is a

* *For the sake of removing all doubt on this subject, it is proper to submit the original to the reader's consideration :—*

Εν τοισι καυσοισιν εαν επιγενηται ικτερος και λυξη πεμπταιω εοντι, θανατωδες ὑποστροφαι λαμβανουσι.

very brief, exact, and appropriate description of the disease. A greater number are said to die of yellow fever on the sixth than any other day of the disease; and it very frequently happens that appearances of yellowness are discovered on the fifth, which, at that period, and accompanied by hiccough, constitute a fatal symptom. When the description which Hippocrates gives of *Causus*, or *Burning Fever*, is duly recollected, and there is connected with this fever the occurrence of yellow skin, accompanied with hiccough, on the fifth day; a character results, which can apply to no other disease in the world but yellow fever. And it would be exceedingly difficult, in so few words, to present a more expressive delineation of that distemper.

The terrible symptom of *black vomiting* is also frequently mentioned by Hippocrates, and represented as being of fatal import. He uses the phrases μελαίνα χολη black bile, μελανα εμεζον black vomit, and μελανων εμεζον the vomiting of black matter. In the twelfth section of his Prognostics, he asserts, that if the matter vomited be of a livid or black colour, it betokens ill. In the first section of the first book of his *Coan Prognostics*, he enumerates black vomiting in a catalogue of the most fatal symptoms. And also in the fourth section of the same book, he considers porraceous, livid or black vomiting as indications of great malignancy.*

The importance of this conclusion is further illustrated and confirmed by adverting to the well known fact, that Hippocrates practised physic for a considerable portion of his life, in parts of Greece situated nearly in the same parallel of latitude with those in the United States, where the yellow fever has produced its greatest ravages.

See Medical Repository, Hex. II. Vol. 3, *page* 107.

* Ει δε ειη το εμευμενον πρασοειδες, η πελιον, η μελαν, οτι αν η τουζεων των χρωματων, νομιζειν χρη πονηρον ειναι.

On another account, the writings of Hippocrates offer important instruction concerning malignant fevers. Not the least reference to *contagion* is to be found in any part of them. If personal intercourse between the sick and the well had been the means of spreading these fevers from one individual or from one family to another, it is incredible that so prominent and glaring a fact should have escaped the notice of a person endowed with such talents for extensive, accurate and discriminating observation.

Yellow Fever indigenous in the Island of Minorca.

By the following quotation from *Cleghorn's Observations on the Epidemical Diseases of Minorca, from the year* 1744 *to* 1749, page 175 & 176, it appears that yellow fever often prevailed in that island more than sixty years ago, and that it was by no means considered as a new or extraordinary disease. It also appears, that the characteristic symptoms of yellow fever are often superinduced on the intermittent fevers of that place, and that their common tertian fevers are only a lower grade of yellow fever. The island of Minorca is situated nearly in our latitude.

" But the utmost danger is to be apprehended, if a few " drops of blood fall from the nose: if black matter like " the grounds of coffee, is discharged upwards or downwards: if the urine is of a dark hue and a strong offensive smell: if the whole skin is tinged with a deep yellow, or any where discoloured with livid spots or suffusions: if a cadaverous smell is perceptible about the " patient's bed: if in the time of the fit he continues cold " and chilly, without being able to recover heat; or if he " becomes extremely hot, speechless and stupid; has " frequent sighs, groans, or hiccoughs; and lies constantly " on his back, with a ghastly countenance, his eyes half " shut, his mouth open, his belly swelled to an enormous

"size, with an obstinate costiveness, or an involuntary "discharge of the excrements: which formidable symp-"toms, as they seldom appear before the third revolution "of the disease, so they frequently come on, both in "double and simple intermittents, during the fourth, "fifth, or sixth period, even where the smallest danger "was not foreseen." The author likewise adds, in a note, that "The English in Minorca are more liable than the na-"tives to become yellow in these fevers."

On Yellow Fever in the interior of the Country.

Sporadic cases of this disease are occasionally observed in all parts of the country. They are found more frequently and in greater number in low and marshy districts, near lakes, mill-ponds, swamps, &c. The most respectable physicians in the country so universally concur in this observation, that it would be unreasonable to contest the fact.

In some of the more exposed situations, and after very hot and damp summers, the yellow fever often assumes an epidemic appearance in the country. The malignant disease at Catskill in this State, in the year 1803, (see *Medical Repository*, vol. 8, page 105) affords an instance of this kind. In the year 1793, it prevailed in many parts of the country in the eastern, middle and southern States, where no suspicion of contagion could exist.

Dr. Anthon, of this city, whose accurate acquaintance with the pestilential epidemics of New-York enables him to decide in the most satisfactory manner, assures me he has often seen the same disease in the interior country, and particularly in the low situations near the river *Illinois*, after an extensive inundation of that river, succeeded by hot weather.

Mr. Volney found yellow fever in several parts of the interior western country, during his travels in America, and

describes the disease with so much accuracy and force, that no doubt of his testimony can be entertained.

See his View of the Climate and Soil of the United States.

Out of a great mass of particular instances of the appearances of yellow fever in situations inaccessible to foreign contagion, I shall only now select the following:

Extract from Mr. Andrew Ellicott's Voyage down the River Ohio, in the month of November, 1796.

" *November* 15*th.*

" Arrived at Galliopolis, about 11 o'clock in the morning.—This village is a few miles below the mouth of the Great Kanhaway, on the west side of the Ohio river, and situated on a high bank; it is inhabited by a number of miserable French families. Many of the inhabitants, this season, fell victims to the yellow fever. The mortal cases were generally attended with the black vomiting. This disorder certainly originated in the town, and, in all probability, from the filthiness of the inhabitants, added to an unusual quantity of animal and vegetable putrefaction in a number of small ponds and marshes within the village.

" The fever could not have been taken there from the Atlantic States, as my boat was the first that descended the river after the fall of the waters in the spring: neither could it have been taken from New-Orleans, as there is no communication, at that season of the year, up the river, from the latter to the former of those places: moreover, the distance is so great, that a boat would not have time to ascend the river, after the disorder appeared that year in New-Orleans, before the winter would set in."

See Ellicott's Journal.

The following fact is communicated by Dr. Watkins, from his personal knowledge.

There is a village called *New-Design*, about fifteen miles from the Mississippi, and twenty miles from St. Louis, containing about forty houses and two hundred souls. It is

on high ground, but surrounded by ponds. In 1797, the yellow fever carried off fifty-seven of the inhabitants, or more than a fourth. No person had arrived at that village from any part of the country where this fever had prevailed, for more than twelve months preceding. Our informant resided in the village at the time; and, having seen the disease in Philadelphia, he declares it to be the same that prevailed at New-Design. He also mentions an Indian village depopulated by the same disease two or three years before.

See Medical Repository, vol. 4, page 74.

Fever, with black vomiting, in the middle part of Pennsylvania, west of the Susquehannah.

"The fever which prevailed, in the autumn and winter of 1799, in Nittany and Bald-Eagle Valley, in Mifflin county, Pennsylvania, proved, in a number of cases, mortal. Bald-Eagle Valley, situated about 200 miles N. N. W. of Philadelphia, is low, abounding with much stagnated water in ponds, which, from the dryness of the season, became very putrid and offensive to the smell. Near to these waters the fever prevailed with great malignity. It was ushered in by chills, with pains in the back, limbs and head, which, in 48 or 60 hours, carried off the patients.—They discharged vast quantities of filth from the stomach, of the consistence and appearance of coffee-grounds, so offensive in smell as to produce nausea, and even vomiting, in the attendants. The fæces also had the same appearance. In many the disease terminated by profuse discharges of blood from the anus and vagina.

Ibid. page 75.

On Dr. Chisholm's *singular opinions concerning Yellow Fever.*

It is well known that this gentleman contends for the production of a *new* and *peculiar pestilential disease*, which he supposes to have been imported by the *ship Hankey*, in the

year 1793, from Boullam, on the coast of Africa.* He believes this new distemper to have been spread through the W. India islsnds and transmitted to this country. He admits that the yellow fever of the West-Indies, is not a contagious disease. The importers and contagionists in the United States, assuming his opinion, and fortifying themselves by his authority, assert that our epidemics are not the yellow fever of the West-Indies, but a continuation of the new and peculiar Boullam fever.

But the slightest examination of the subject is sufficient to satisfy an impartial inquirer, that the Boullam fever of Dr. Chisholm and the yellow fever of the West-Indies, are precisely the same disease ; and that only such occasional variations of grade have been observed in it, as are found in the different epidemic seasons of all pestilential distempers. The ravages of pestilence in the West-Indies, since the pretended introduction of the Boullam disease, among a given number of Europeans or other strangers recently arrived, or among the natives themselves, are not greater than they were fifty years ago, or during the war of the American Revolution. The great body of physicians and people in the West-Indies, do not find the fever now prevailing at all different from what it was many years before the arrival of the ship Hankey from Boullam. The descriptions of the disease by physicians who wrote forty, fifty and sixty years ago, precisely agree with what is now observed in those islands and on this continent. And in this city, the yellow fever prevailed in the autumn of 1791, two years before the supposed arrival of the Boullam disease by the ship Hankey.

Without recurring, however, to facts of this kind, Dr. Chisholm's doctrine, considered in itself, cannot stand the test of examination. All his leading assertions concerning the pretended introduction of the Boullam fever into the West-Indies, are positively denied by Mr. Paiba,

**An Essay on the Malignant Pestilential Fever, &c. 2d Edit. in 2 vols.*

a gentleman of intelligence and unblemished character, who was on board of the ship charged with the importation, during the whole of the voyage. The narrative itself of the voyage, and of the disease supposed to have been imported, betrays inherent evidence of mistake. And even if Dr. Chisholm's story be admitted, it is only an instance of malignant disease generated in a vessel, as he does not pretend to derive it from the Africans.

Dr. Chisholm makes a very elaborate attempt to discriminate the features of the Boullam fever from those of the yellow fever of the West-Indies. It is apparent that there is no foundation for the distinction; and that he only describes different grades of the same disease, modified and rendered more malignant at one time than another, by peculiarities of season. This happens with respect to all epidemic diseases. The measles, for example, in one season, are *mild and safe*, at another, they are *malignant and fatal;* in one epidemic they are *highly inflammatory*, in another they may be *highly putrid;* yet are they not essentially the same disease? But, admitting, for argument's sake, the distinction contended for by Dr. C. it may be still asserted that, in his description of the ordinary yellow fever of the West-Indies, and not in that of the Boullam fever, he gives the character of the disease which has so often prevailed in this city.

It is creditable to the candour of Dr. Chisholm that he seems lately, in a considerable degree, at least in effect, to have given up his favourite opinion. He now admits that a disease, similar to that of Boullam, has been since generated on board of a filthy ship from England. It is proper to give his own words, as expressed in an extract of a letter to Dr. Davidson, dated Demarara, August 10, 1800, a period of seven years after the formation of his first opinion.

"A fever of a most alarming nature has most fatally prevailed since the beginning of July. I have visited a few of the sick at the request of Doctors Dunkin and

Lloyd in town, and of Dr. Ord on this coast; and I have no hesitation in pronouncing it a fever of infection. Its features are, almost without exception, precisely those of the malignant pestilential fever of Grenada of 1793 and 1794. It is fully as fatal, as rapid, and as insidious. Its origin, as far as it has been ascertained by the gentlemen I have mentioned, seems to be similar. A ship arrived about the beginning of July or end of June from Liverpool, after touching at Surinam. The filth on board, occasioned by a cargo of horses, and the extreme neglect of the officers and crew, was such as beggars description."

See Medical Repository, vol. 5, page 229.

Thefe facts, thus presented by Dr. Chisholm himself, form a luminous and instructive commentary on his former opinion, which he had published with great confidence, and which has been implicitly adopted and acted on by the contagionists in the United States. In 1793, he pronounced the malignant disease of Grenada, which, as was observed before, he believed to have been imported from the coast of Africa, a "*nova pestis*," a peculiar, original, foreign pestilence, recently generated and utterly unknown before, endued with a new and distinct character, possessing new powers of devastation, and capable of propagating itself by contagion throughout the world. As he considered it to have been engendered on board of the Hankey, in consequence of the accumulation of filth, the crowding of a great number of persons within a small space, and the heat of the atmosphere in which the vessel was immersed; he must have ascribed whatever peculiarity he supposed it to possess, to the peculiar state of the air on the coast of Africa; for he did not pretend to derive it originally from the inhabitants of Africa, or any modification of contagion. No other circumstance of the case, therefore, except some unknown singularity of the African atmosphere, could occasion this

alleged instance of the generation of pestilence in a ship to differ from other cases in which malignant fevers are produced in filthy, crowded and unventilated vessels, in hot climates or during hot seasons. But in the year 1800, while the flames of the Boullam disease lighted up in 1793, were still raging far and wide, and destroying the people of the West-Indies and of the American continent, he finds another "*nova pestis*," generated in a ship from England, which had touched at Surinam, and had become very filthy from a cargo of horses; and what is wonderful, he finds this pestilence, thus originating in a ship from England, possessing *features, almost without exception, précisely those of the malignant, pestilensial fever of Grenada, of* 1793 *and* 1794; *fully as fatal, as rapid, and as insidious.*—It appears then that the facts advanced by Dr. C. in the latter case (even admitting those concerning the Hankey to be true) instead of supporting his doctrine of *novelty and peculiarity in the fever of Boullam*, go too far for his purpose, and establish the general principle, that filthy, crowded, and unventilated vessels, immersed in a certain degree of heat and dampness, may generate malignant fever in all parts of the world where such circumstances are found,—which is precisely the principle for which the advocates of local and domestic origin have always contended.

As to Dr. C's opinion of the contagiousness of these fevers, it rests upon the same vague and delusive foundation with the popular, or rather vulgar inference of contagion, in all cases where a disease attacks a great number of persons in the same vicinity; which has been sufficiently refuted in a former part of this Report.

Report

OF

THE GENERAL COMMITTEE

OF

HEALTH.

THE COMMITTEE OF THE BOARD OF HEALTH, APPOINTED TO CONSIDER WHAT PREVENTIVE MEASURES MAY BE NECESSARY TO SECURE THE HEALTH OF THE CITY OF NEW-YORK,

—*REPORT*—

THAT the introduction of a copious supply of pure and wholesome water as well for domestic use, as for the purpose of sprinkling the streets and cleansing the kennels, during the summer season, is essentially necessary. As water constitutes a large proportion of the liquids we take, and is constantly used in the processes of cooking, it is scarcely necessary to prove that it ought to be pure. As it is the basis of all ablution, and the principle means of cleanliness, whether as to domestic or public nuisances, it ought to be plentiful as well as pure. The experience of all old and large cities proves, that water procured from any source within their limits, or in their neighbourhood, is impure and unwholesome; and that it always becomes necessary to obtain it from some distant place, beyond the reach of contamination from the city, and in quantity, copious, steady and inexhaustible. All schemes therefore, for procuring potable and culinary water from any source within the city, or in the neighbourhood, ought to be rejected, and some arrangement devised as soon as possible, at whatever expence, to bring it in sufficient quantity, and of the greatest purity, from some river or stream, that rises at a distance. Our sister city of Philadelphia has set us an example of a noble and costly establishment for this object. On this point they are greatly in advance of us. There is reason to believe, that they are already reaping the fruits of this provident and wise plan. The yellow fever of the last season, though it appeared sporadically all over that city,

was only epidemic in those districts to which the advantages of a copious supply of pure water, sufficient to scour gutters and wash streets, had not extended.

That common sewers ought to be constructed in such streets of this city as are of sufficient descent to the river, in order to drain cellars and low grounds, and to discharge kitchen and backwater under ground as much as possible. It is one of the first and most essential objects, in a system intended to improve the healthiness of the city, to devise some adequate plan for *draining* all the low, moist and marshy grounds. It is conceived, that nothing can produce any great or permanent good effect, without this improvement. Whether this draining can be best accomplished by sewers, by canals, or by any other means, is a question which can only be determined by a skilful intelligent engineer.

That the line of wharves along our shores ought to be faced with solid stone masonry, constructed in such manner as to be impervious to water. To face the margin of the East and North Rivers, on a permanent line, with stone, and to render this line impervious to water, seems also to be a measure of the first necessity, towards recovering the healthiness of the city. While the present construction of wharves and docks is suffered to remain, not only the filth, which finds admittance and settles among the logs and stones, must be very pernicious; but the water, which is incessantly transuding, keeps in a state of moisture, and consequently in the worst state to be operated upon by heat, all the animal and vegetable offals, which overspreads and forms so large a proportion of the *made ground*. While water is allowed to pass in this constant and copious manner from the rivers, it is impossible that the made ground should ever be dry, consolidated or wholesome. Whatever of a decaying and corrupting quality is to be found in it, by the aid of this water, when acted upon by the high heat of summer,

will be prepared to emit the most virulent miasmata, and particularly that daily and hourly succession of them, which no breeze, nor even hurricane could effectually sweep away. If this line of stone work were properly constructed, there is reason to believe that all the cellars in the lower parts of the town (especially if the aid of sewers were likewise introduced) would be rendered safe, wholesome, and applicable to any of the useful purposes for which they are designed. And it may, perhaps, deserve consideration, how far the preservation of these cellars for their present purposes, and the eventual saving to be expected from a permanent erection of stone, instead of the temporary erection of wood, subject to continual decay and dilapidation, and requiring to be rebuilt at short intervals, aided by a reasonable augmentation of the present rates of wharfage, would go towards reimbursing the great expence of this improvement.

That the interment of dead bodies within the city ought to be prohibited. A vast mass of decaying animal matter, produced by the superstition of interring dead bodies near to churches, and which has been accumulating for a long lapse of time, is now deposited in many of the most populous parts of the city. It is impossible that such a quantity of these animal remains, even if placed at the greatest depth of interment commonly practised, should continue to be inoffensive and safe. It is difficult, if not impracticable, to determine to what distance around, the matter extricated during the process of putrefaction may spread; and by pervading the ground, tainting the waters, and perhaps emitting noxious exhalations into the atmosphere, do great mischief. But if it should be decided still to persist in the practice of interment within the city, it ought to be judged necessary to order the envelopement of the bodies in some species of calcareous earth, either quick lime or chalk. The present burial grounds might serve extremely well for planta-

tions of grove and forest trees, and thereby, instead of remaining receptacles of putrefying matter and hot beds of miasmata, might be rendered useful and ornamental to the city. This growing evil must be corrected at some period ; for it is encreasing and extending by daily aggregation to a mass already very large, and the sooner it is arrested, the less violence will be done to the feelings and habits of our fellow citizens.

That the planting of trees and other healthy vegetables ought to be encouraged. There is good reason to believe, that frequent extensive and numerous plantations of trees, and cultivating with care, wherever room can be found, the smaller plants, would be an important step towards rendering the city more like the country, as to the condition of its atmosphere, and thereby diminishing the prevalenee of pestilential diseases. It is believed, that ten or twenty times, or perhaps a greater proportion of vegetable growth, beyond the existing amount, might be introduced into this city, not only without inconvenience or injury to the but public so as greatly to conduce to its pleasantness, ornament, healthfulness, and the protection of its inhabitants from the effects of the direct rays of the sun in summer and in the beginning of autumn.

That a scientific and skilful engineer should be employed to assist in projecting and executing the several objects embraced in this report. It cannot be too frequently inculcated on the minds of our citizens, that in all the improvements to be undertaken in New-York, we ought as far as possible to avail ourselves of the examples exhibited in the old cities of the eastern continent, and to admit only such things as have been sanctioned by the award of time and experience. It is especially proper to direct our researches to the southern parts of Europe, and particularly to Spain and Italy, which lie under corresponding degrees of latitude with many parts of the United States ; but in order to obtain this knowledge in so pre-

cise and accurate a manner as to be applicable to our purposes, it will be requisite to consult and to retain in employment some able and enlightened engineer, who has added to the advantages of a regular and scientific education, much experimental and practical acquaintance with business, the improvements of travel, and that maturity of character which can only be derived from long reflection and experience. Such a person ought to be obtained, from whatever distance, or at whatever expence, it may be necessary to procure him. It is only by providing in this manner, that the corporation of this city can hope to escape censure, to erect works and establish improvements of solid and lasting utility, such as will do credit to the city and themselves, and such as will endure the test of time and criticism of posterity.

That all cellars subject to the influence of tides or backwater, should be filled up level with the streets, and that all lots should be regulated in such manner as to discharge the water freely into the streets. That no cellars which may be found damp and obnoxious to health, should, on any condition, be inhabited. That all vaults of privies which may be deemed unwholesome, either from being situate in confined places, or from whatever cause, should be filled up, and tubs substituted in their place.

And whereas various houses, in different parts of the city, have on the recurrence of every malignant fever, proved to be the principal seats of disease, and the graves of their tenants, the committee suggest the propriety of prohibiting the same to be let or occupied as dwelling houses, that they be converted into ware-houses, and that any injury sustained by the proprietors be defrayed by the public.

That no further encroachment be made into Hudson river, than what may be absolutely necessary for public

basons and quays; and that no buildings be erected beyond the present boundary of Washington-street.

That more extensive accommodations ought to be provided at Bellevue Hospital for the reception of sick patients; and that a pay hospital be erected for the accommodation of such persons, whose circumstances may afford the expence.

The committee further recommend the following amendments to the quarantine law: that all vessels arriving from the West Indies and the Mississippi, during the months of July, August and September, shall remain at the Quarantine Ground not less than four days after their arrival, and that no intercourse shall be permitted, during that period, between the crew or crews of said vessels and the city of New-York, unless subject to such restrictions as shall be prescribed by the Health Officer. And that such vessels shall, moreover, be detained at the Quarantine Ground for a longer term than the aforesaid four days, if, in the opinion of the Health Officer, such detention may appear necessary.

All which is respectfully submitted.

(Signed)

WYNANT VAN ZANT, Jr.
EDWARD MILLER,
JOHN PINTARD.

New-York, Jan. 20, 1806.

ENUMERATION OF THE INHABITANTS

OF THE

CITY OF NEW-YORK.

To the Honourable the Mayor, Aldermen and Commonalty of the City of New-York,

THE City Inspector has the honour to report, that in conformity with the order of the Common Council, an enumeration has been taken of the jurors in the city and county of New-York, agreeably to "An act of the Legislature regulating trials of issues, and for returning able and sufficient jurors," passed 31st March, 1801, which enumeration also comprehends the number of inhabitants who retired from the city, during the prevalence of the malignant fever in 1805, together with the total population.

Which is respectfully submitted.

JOHN PINTARD.

WARDS.	*White Inhabitants.*		*People of Colour and Free Negroes.*		*Slaves.*		TOTAL.	*Persons who retired from the city during the malignant fever in 1805.*
	Males.	*Females.*	*Males.*	*Females.*	*Males.*	*Females*		
FIRST	3,422	3,748	37	37	186	249	7,679	6,112
SECOND	3,414	3,663	72	101	118	182	7,550	5,961
THIRD	3,283	3,597	106	119	104	162	7,371	4,152
FOURTH	4,346	4,520	70	87	68	143	9,234	4,320
FIFTH	5,320	5,993	358	438	85	146	12,340	3,452
SIXTH	4,101	4,266	183	253	59	99	8,961	224
SEVENTH	8,053	7,498			38	79	15,668	2,775
EIGHTH	2,420	2,134	38	61	49	70	4,772	
NINTH	1,025	959			111	100	2,195	
	35,384	36,378	864	1,096	818	1,230	75,770	26,996

Extract from the original returns on file in this office.

JOHN PINTARD, *City Inspector.*

City Inspector's Office,
February 24th, 1806.

According to the Census taken by order of Congress in 1801, the population of this City amounted to

Free White Males - - - - - -	26,727
Do. do. Females - - - - - -	27,394
Other Free Persons - - - - - -	3,499
Slaves - - - - - - - - - - -	2,869
	60,489
Increase of population in 5 years, at the rate of 25 per cent.	15,281
	75,770

The total number of Cases of Malignant Fever, which occurred in the City of New-York in 1805, was - - - - - - - - - - - - - - - - 645

The Deaths by the same disease, in the City, at Bellevue and the Marine Hospital, amounted to 302

viz.

WARDS.	*Cases of Malignant Fever.*	*Deaths.*
FIRST - - - - - - - - - -	105	37
SECOND - - - - - - - - - -	93	45
THIRD - - - - - - - - - -	67	28
FOURTH - - - - - - - - - -	79	33
FIFTH - - - - - - - - - -	90	25
SIXTH - - - - - - - - - -	83	18
SEVENTH - - - - - - - - -	101	25
EIGHTH - - - - - - - - - -	25	9
NINTH - - - - - - - - - -	2	2
BELLEVUE - - - - - - - -		52
MARINE HOSPITAL - -		28
	645	302