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D. H. H. Childs
LETTER

OF THE

HON. STEPHEN ALLEN,

M. G. Childs
Mayor of the City of New-York,

TO

JOSEPH BAYLEY,

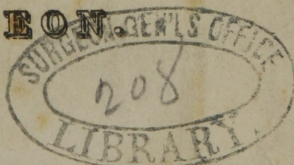
Health Officer of the Port,

IN RELATION TO THE CASES OF

YELLOW FEVER,

At the Quarantine Ground in 1821, and Dr Bayley's

REPORT THEREON.



PUBLISHED BY ORDER OF THE BOARD OF HEALTH.

Van Pelt & Spear, Printers, 95 Pearl-Street.

1822.

New York (City) Board of Health

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HON. STEPHEN ALLEN

Mayor of the City of New York

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YELLOW PAPER

At the Continental Convention, 1821, New York, D. D.

REPORT

PRINTED BY ORDER OF THE BOARD OF

of the City of New York

BOARD OF HEALTH.

Feb. 25, 1822.

The following Correspondence which had passed between the Mayor and the Health Officer, in relation to the cause of Yellow Fever, at the Quarantine Ground, on the Summer of 1821, and the Report from the Health Officer thereon, were presented to the Board, and having been read, were directed to be printed.

J. MORTON, Sec'ry.

ACCOUNT OF THE CASE

1801

The following Case is which had been before the
Court and the House of Representatives in the case of
the ... of the ... on the ...
... and the ...
... to the ...
...
J. MORTON, Secy.

DOCTOR JOSEPH BAYLEY, HEALTH OFFICER.

—
Mayor's Office, New-York, }
October 11, 1821. }

DEAR SIR,

I observe by your communications to the commissioners, for several days past, that no new case of death by Yellow Fever has occurred in your vicinity since the 5th inst. and I am therefore led to believe, that the disorder has ceased its ravages, and that in a very few days an end will be put to our anxiety by the appearance of frost, when I hope to have the pleasure of congratulating you on the termination of your labours, and the merciful escape of yourself and family from this terrible scourge of our sea-port towns. Doctor Dykeman and myself have had several conversations on the peculiarity of the cases of Yellow Fever that have occurred this season, both here and at Staten Island, and it has appeared to us, that a history of the cases which have come under your observation, detailing the particulars of each—the time they were taken sick, and when they died; the cause of their sickness, whether from working on board infected vessels, or living in the vicinity of such infection, or by coming in contact with infected articles, such as clothes, bedding, &c. or by nursing and attending the sick, &c. with such observations as you may deem proper, would be very interesting, and would tend to establish the principal, that

a strict and vigorous Quarantine is absolutely necessary, if we expect to preserve this city from the ravages of pestilence, and our citizens from an irreparable loss of time and property, in being compelled to flee from it.

The cases which have occurred at the Quarantine establishment, as far as I am acquainted with them, through your communication to the Commissioners, are all traceable to foreign origin, and although the five cases reported to the Board of Health, cannot be positively traced to that source, there is, nevertheless, good ground for believing, that they were not caused by any inherent quality in the atmosphere of our city. The favourable state of things at Staten Island and in the city, have determined the Board of Health to take into consideration at their meeting on Monday, the propriety of rescinding the Proclamation issued on the 28th ult. and if you have any thing to suggest on the subject, we shall be happy to hear from you.

STEPHEN ALLEN.



THE HON. STEPHEN ALLEN, PRESIDENT OF THE BOARD OF
HEALTH.



*Quarantine Ground, Staten Island, }
October 13th, 1821. }*

DEAR SIR,

I fully agree with you on the importance of making an accurate statement of all the circumstances connected with the deadly disease, which has recently occurred here; for of about thirty persons who have had it, twenty have died,

and in every case the person has either lived near to the Public wharf, or on board infected vessels, or has been employed in or about them, with the exception of the Sinclair family, none of whom, except Sinclair, (and he did not remain there any length of time) have been in the infected district, consequently they must have contracted their disease from the cloathing and bedding of the sick or from personal contagion. I will employ what leisure I may have while here to collect the facts, and endeavour to give you a faithful detail of them, with such inferences and observations as may be impartially deduced from them, and which I trust will have a tendency, as you have forcibly expressed it in your letter of yesterday, "to establish the principle, that a strict and vigorous Quarantine is absolutely necessary, to preserve the city from the ravages of pestilence, and our citizens from an irreparable loss of time and property in being compelled to fly from it."

I am gratified to hear that the Board of Health intend to take into consideration the rescinding the Proclamation of the 28th ult. as the season is so far advanced, that not much danger from the importation of pestilence, can be apprehended, and vessels detained here for a length of time, are much exposed to storms at this season. As you have requested me to state any thing that might occur to me on this subject, I beg leave to observe that several southern ports continue unhealthy, and the vessels lately from Savannah have had several sick on board with bilious fever, which has proved fatal to some persons who belonged to the schooner Charles, now at Quarantine. Would it not, therefore, be advisable to continue in force the provision of the fifth section, and let it expire at the limitation affixed to the late proclamation? Although I do not apprehend any danger to the health of our city, yet it would produce but little inconvenience and delay to coasters, and would prevent them from going to the city with sick persons on board, which might create unnecessary alarm, and false reports of sickness injurious to the prosperity of our city. I am of opinion that

we shall not have any more cases of Yellow Fever this season from the infected district, as no persons sleep within it, and very few go there in the day time.

With great respect,

I remain your very humble serv't.

JOS. BAYLEY.

TO THE HON. STEPHEN ALLEN, PRESIDENT OF THE BOARD
OF HEALTH.

SIR,

As you suggested the propriety of my making an inquiry into the situation of the vessels at Quarantine, and all other circumstances which might in any manner be connected with the origin of Yellow Fever at Staten Island during the last season: in compliance with your written request I respectfully submit the following facts and observations on this subject, so highly important to the health and prosperity of our commercial city.

If this disease is of local origin, always arising from animal and vegetable matter decomposed by heat and moisture; and if the decomposition of similar materials on board of vessels, is the only cause which renders them injurious to the public health; then our Quarantine system is unnecessarily burdensome, by requiring vessels to be detained a longer time than is necessary to cleanse them, for this can be done in most cases in less time than a week. Very few, if any vessels are more offensive than our slips, wharves and many other places in our city. Why then should they on this account alone, be subject to any Quarantine restrictions, as they can be made much cleaner in a few hours after their cargoes are discharged, than the slips and wharves from which they are excluded: while coasting vessels which are permitted to be at our wharves, are frequently more filthy than West India ones, for they not only transport the same cargoes as Rum, Sugar, Molasses, Coffee, &c. but at the

same time the perishable produce of our own country, as grain and salted provisions. All these articles cannot render the foul combination made by their leakage less pernicious to health, than that which is formed by West India produce alone.

To be able to assign the cause of a disease, is more flattering to our professional pride, than to express our ignorance of it. Hence the doctrine of the domestic origin of Yellow Fever has its numerous advocates; yet experience has instructed us to be cautious in drawing our inferences, as they are often fallacious; and the facts herein contained are a further proof, that its admonitions on this subject are not to be disregarded.

That the contagion of Yellow Fever existed at the United States' wharf, anterior to the violent gale of the 3d of September last, appears probable from the cases of the Rev. Mr. Hardenburgh and Seth Waite. I shall for this reason, commence with a statement of the circumstances of those vessels, which were at that place before the gale. They consisted of the ships Amphion, Ann Maria, Lucy Ann, and L'herondelle from Havana, the brig Lion, from a cruise, and the schr. Betsy from Wilmington, N. C. They arrived at Quarantine between the 14th and 26th of August, and were brought to the wharf between the 22d and 31st of the same month. The ships Ann Maria, and Lucy Ann, sailed from New-Orleans in stone and iron ballast, the beginning of June for Pensacola, and transported from the latter place about six hundred Spanish troops to Havana, who were on board eleven days, and were all landed in health. Those vessels remained only five days at that port, and their crews continued healthy until they sailed from it. On their passage from Havana to this port, one seaman died of Yellow Fever on board of the Ann Maria, August 6th, and one on board of the Lucy Ann, of the same disease, August 13th. Some of their seamen were indisposed on the passage from the West Indies, and the mate of the Lucy Ann was convalescent from an attack of Yellow Fever, when the ship

arrived here August the 20th. These vessels remained in the stream from seven to eleven days, during which time they were ventilated, and the forecastles and holds were white-washed. The ballast of the *Lucy Ann* was overhauled, and the place where it lay was also white-washed; but nothing had been done with the ballast on board the ship *Ann Maria*, since she sailed from New-Orleans.* The ship *Amphion* arrived here August the 16th, and one man died of Yellow Fever August the 5th. This vessel lay in the stream seven days, where her cargo of Coffee and Sugar was put in lighters and sent to the city; but the tallow in hides and casks, which was taken on board at Buenos Ayres, was retained for ballast until she was hauled to the wharf, where it was landed previous to the gale. She was ventilated and white washed in the stream, except that part of the hold which was occupied by the tallow.

The crews and passengers of those three ships, forty-five in number, were released from Quarantine before the gale, as twenty days had expired since the last death had occur-

* The ship *Ann Maria* had been used as a transport to convey Devereaux's troops from Ireland to the West Indies; afterwards she proceeded to New-Orleans, from whence she sailed to Havre de Grass, with a cargo of cotton, then returned to New-Orleans, where another cargo of cotton was put on board of her, with which she sailed to Pensacola, and there it was delivered on board of a French ship lying in the bay. The *Ann Maria* then sailed back again to New-Orleans, where she was purchased by her commander Capt. Anthony R. Gale, (in May 1821,) who being anxious to know what was the condition of her ballast, and how much of it was iron, employed about twenty men for a week to overhaul it; and to clean out her timbers. None of these men were taken sick, and the chief mate who superintended the work, enjoyed uninterrupted health from that time until she was brought to the city, the 27th of October. If the ballast alone (which had been overhauled four months before) was the cause of disease in September, it is very extraordinary that those twenty men who were engaged in separating about ten tons of dirt from it at New-Orleans, should all escape sickness.

red on board ; but three of the crew remained in each vessel to take care of them. The ship L'herondelle having arrived in distress, permission was given to take her to the wharf the 23th of August, three days after she came into port.

Two of her seamen died at Havana, one on the 13th, the other on the 20th of June ; but from that period until the 1st of October, when she was taken from Quarantine, not one of her crew, consisting of eleven persons, was taken sick, although the ship lay along side of the United States' wharf the whole time, with all of them on board, except the supercargo. Her cargo consisted of Sugar, Cotton, Rum, Indigo and Dye-wood, which was principally discharged before the gale ; and what remained in her was but little damaged. The Brig Lion arrived at this port August the 14th, from a four months cruise off the coast of Spain, via St. Bartholemews and St. Eustatia, where the crew of one hundred and fifty men were discharged in health. The crew which navigated her to this place, were shipped from those islands without going into port with the vessel, and continued in health the passage. This brig, after performing the usual Quarantine of four days, directed for vessels coming from healthy West India ports, with healthy crews, was permitted to proceed to the stream opposite the city, but three days after, she was removed to Quarantine again, as one of her seamen was taken sick with fever of a suspicious character, which afterwards was ascertained not to be the Yellow Fever. The schooner Betsey from Wilmington, N. C. was taken to the wharf the 27th of August, the day after she arrived, where her cargo of Cotton and Turpentine was unloaded in three days. Her crew consisted of five persons, who were healthy during the voyage, and continued so, when discharged the 5th or 6th of September. From the foregoing statement it appears that three of those vessels, lying at the wharf before the storm, arrived in ballast ; two others had discharged their cargoes in good order ; and that part of the cargo which was unloaded before the

storm from the sixth vessel, was also in a sound condition. The crews of the three first mentioned ships had been discharged, except their ship-keepers; and the ship *L'herondelle* and brig *Lion*, being foreign vessels, their crews who were also foreigners, and used to the West India climate, continued attached to their respective vessels until late in October, and enjoyed good health all the time they were at Quarantine, although they resided at the United States' wharf the whole time. The gale drove the ship *Ann Maria* on the rocks 630 feet from the United States' wharf, where she remained until the 20th of October. The ship *Lucy Ann* was driven on shore, but was got off the same high tide and again hauled to the wharf. The ships *Amphion* and *L'herondelle* retained their situations at the wharf. The brig *Lion* and schooner *Betsey* were sunk at the wharf, where the brig remained until November, and the schooner about three weeks.

All the persons who were taken sick with Yellow Fever the last year at Staten Island after the 3d of September, had been repeatedly on the United States' wharf near to those vessels for some hours at a time, or worked on board one of the four ships from Havana, except Capt. Van Beuren's daughter, and the three females of the Sinclair family. This wharf having been the focus of the disease, I have deemed it necessary, to relate minutely, the circumstances of some of those vessels to the time of the gale, and of others until discharged from Quarantine, but shall again have occasion, to refer to some of them when tracing the probable source of disease in individual cases.

A great many vessels having been driven on shore the 3d of September, the condition of those only which were stranded between the United States' and State wharves, will be examined into; for the others were at such a distance, that they could have no agency in adding to the infected atmosphere of the place. Fourteen vessels were driven on shore within the above mentioned limits, and they can with evident advantage be divided into two classes, viz: those that were from healthy ports, and those which sailed

from unhealthy ports, or had sickness on board. The vessels constituting the first class are the ship Belle and brig Belvedere from Savannah; the brigs Neptune's Barge and South Carolina, and the schooner William and Joseph from Charleston; and the schooner Pacification from Jaquemel. Some of them arrived during the gale, and would have been permitted to proceed to the city immediately after their examination: others had been released from Quarantine, but they were prevented from getting under way by the violence of the storm. The crews and passengers of those vessels consisting of sixty-four persons, were in perfect health during the passage and when discharged from Quarantine. Their cargoes were principally cotton, part of which was wet, but it was all sent to the usual places of deposit as fast as lighters could be procured to take it away. No sickness was occasioned by them or their cargoes, as many persons from the city, who were employed to get those vessels off the shore, enjoyed uninterrupted health.

The second class, for obvious reasons, relating to the Sinclair family, has been divided into those vessels which were driven along side or near to the United States' wharf, and those at the greatest distance from it. In the first sub-division is the brig Andreas from Marceilles, via Cape Haytien, with a cargo of wine. She arrived at Quarantine August the 15th, in nineteen days from the last mentioned port.— She had on board five passengers, all well; her crew of ten persons were shipped in Sweeden, and were healthy during the voyage. On the 22d of August her carpenter, who went to bed well, died in the night: the appearances on dissection, clearly indicated that his death was occasioned by Apoplexy. The same day one of his shipmates was taken sick with slight fever; and on the 27th of the same month two more of the crew were taken ill with feyer of a suspicious character, accompanied with great tenderness of the abdomen, which was attributed to their provisions being cooked in copper utensils, that had their tin coating worn off by long use. They all recovered, and two of them return-

ed to the brig the 2d of September. After discharging part of her cargo which was not injured, she was got off and hauled to the United States' wharf, where she was unloaded and purified, but remained there until the last of September, when she was anchored again in the stream. While she was at the wharf between the 14th and 26th of September, the captain and two seamen sickened with Yellow Fever, one of whom died, and two recovered. The sloop Spark arrived August the 29th, in eighteen days from Havana, with a crew of five persons and two Spanish gentlemen passengers. They were in health when they arrived here, and when they left Quarantine. The former captain died at Havana, August the 7th, and a seaman on the passage, August the 13th, both of Yellow Fever. This vessel was sunk at the wharf with all her cargo, consisting of sugar, which was totally lost; for it had been under water three days before any attempt was made to save it, and she remained under water until she was removed to Long Island to be repaired. The brig Mentor arrived September 1st, in sixteen days passage from Matanzas, and was navigated by seven persons who went from, and returned to New-York in her. They and the passengers enjoyed perfect health during the voyage, and were discharged from Quarantine the 6th of September. The place she sailed from, was represented to be healthier than usual at that season of the year, but it was considered by us a sickly port. Her cargo of Sugar, Coffee, Molasses and Fruit, was damaged, and sent to the city immediately, and sold. The brig Nancy arrived August the 31st: she had twenty eight days passage from Port au Prince, via Rum Key. At the latter place she was loaded with salt, which was all lost when she was driven on shore. The same crew, consisting of seven persons, sailed in her from Charleston, and went the voyage round. None of them had been sick since they shipped in her; and they were in health when discharged from Quarantine September the 5th. She had one passenger who was also well. The brig Albert arrived September the 2d, after twenty seven days passage from Point

Petre, Gaudaloupe. She was navigated by nine seamen, who sailed the voyage in her from Portland, without any of them being seriously indisposed, and during the forty days they remained at Point Petre, they did not hear of the death of any person belonging to the shipping in that port. This vessel was driven to the United States' wharf, where her cargo of Molasses, Wine and Oil, was discharged in good order. She was soon after hauled into the stream, and her crew continued healthy. The schooner Native, after twenty days passage from St. Thomas, arrived the same day, as the brig Albert and was driven to the wharf near to her, where her cargo of Rum, Wine, Sugar, and Hides, (which last article, being on top of the others, was quite dry) was discharged into lighters very little injured. She was removed to the south side of Staten Island about the 14th of September, to be repaired. Her crew consisted of eight men, six of whom went in her from New-York, and two were shipped at St. Thomas, where one of the original crew died of fever, after ten days illness. The only passenger who came in her, was a gentleman who had resided many years in the West Indies, and was recommended to come to the United States to obtain relief for a chronic affection of his liver, of which disease he died the day of his arrival. No other person than the two above mentioned had been sick the voyage, except a man with Rheumatism. Three days after she was removed from Quarantine, one of her seamen was taken ill with Yellow Fever, September the 17th, and died on the 23d of the same month. Of those six vessels contained in the first sub-division it appears that the cargo of the brig Mentor is the only one materially damaged, (except that of the sloop Spark, which was under water three days.) When the upper boxes of sugar were taken on the wharf, some of the contents which had not been washed out by the water, ran out on the wharf and produced an unpleasant smell: but this could have no influence in producing the fever, as it had already commenced. The remaining two vessels, whose circumstances are to be described in

the second sub-division, were six hundred and twenty-five feet from the United States' wharf, and at least four hundred and fifty feet distant from those vessels mentioned in the first sub-division. The brig *Andromache*, the nearest of the two to the United States' wharf, arrived the 26th of August, in twenty-one days from St. Thomas, navigated by eight persons who sailed from, and returned to New-York in her. She had also one passenger on board. On her passage to this port one of her seamen died of fever, August the 10th, after nine days illness; the captain and one sailor were sick with a similar disease at the same time, and recovered; all the other persons were healthy during the voyage. Six or seven men came from the city and worked at the vessel with three of the crew for four weeks, during which time they occasionally slept on board, but not one of them was indisposed. Her cargo of Rum, Sugar, and Indigo was all discharged in lighters while she remained in the stream, except 8 hhds. of Sugar, retained for ballast. This was damaged when she was driven on shore, previous to which event she had been ventilated and partly white-washed. The brig *Copernican* arrived September the 1st, after a passage of twenty days from St. Jago De Cuba. She was navigated by eight persons who all went from New-York in her, and enjoyed perfect health during the voyage. All of them, except the mate and cook, were discharged from Quarantine about the 8th of September, at which time the mate's wife and child came from the city, and remained on board until the 28th of September. They and the labourers from the city, who were employed to get her off the shore, which was not effected, until the 26th of the same month, were in health the whole time. Her cargo of sugar, which was half damaged, was carted to the steam-boat wharf and from thence sent to the city.

The particular circumstances and situation of all the vessels, that could possibly have any agency in producing the pestilence at the Quarantine ground the last season, having been accurately detailed; it will be proper to enumerate all

the dwellings situated near to the river, that are contained in the space of 1400 feet along the shore, where the above mentioned vessels were stranded; to state their distance from the United States' wharf, which may be considered as the centre, around which the infected vessels lay, and to specify the distance of those dwellings from some particular vessels, that an explanation of some important facts which have occurred on this subject may be offered. Five dwelling houses and the hospital are contained within the above-mentioned limits, viz. Capt. Arnett's and Mr. Fountain's situated on the north of the United States' wharf, the first 280 feet, and the second 510 feet from that part of it which was occupied by the four ships from Havana; Capt. Wm. Van Buren's 290, the Health Officer's 570, Mr. Vanderbilt's 810, and the nearest part of the hospital 940 feet distant from the same wharf, on the south side. The brig Mentor was stranded 100 feet from Capt. Van Beuren's house. The distance from the place where the brig Andromache laid to Mr. Vanderbilt's house is 225, to the Health Officer's 300, and to the hospital 350 feet. From the place where the Brig Copernican was driven on shore to Mr. Vanderbilt's house is 150, and to the hospital 275 feet. These vessels were nearer than any others to the buildings above mentioned. After the ship Ann Maria was driven on the rocks where she lay upwards of six weeks, she was only 250 feet from Mr. Fountain's house, but 630 feet from the United States' wharf. All those buildings are 300 feet from each other, except Mr. Vanderbilt's, which is 160 feet from the hospital. The land about them is under cultivation; in fact it is a country place, and its healthiness has never been questioned. The shore is bold and rocky, the ground which gradually rises from it lies open to the ocean, and is cooled by its summer breezes. There are within the Quarantine limits only two wharves, which are built of sound materials, and covered with wholesome earth. The only stagnant water and marshy land in this part of the island, are situated about two or three miles from the Lazaretto and they are of very limited extent. But if they were much nearer, no injurious effect would result

rom them, as the only wind that would waft their miasmata to the hospital, is broken off by the intervening high land.

The foreign and local circumstances that could have any influence in causing, the fatal fever which prevailed at the Quarantine ground, having been fully detailed; I shall now attempt to trace the source of this disease by its baneful operation on individuals; although the particular change which this species of contagion produces in the atmosphere, like Small Pox, Measles, Plague, &c. cannot be defined; nevertheless we may avoid such sources of it as experience has proved to be dangerous, and not place our whole security in guarding against the foul air arising from animal and vegetable decomposition alone; for in manufactories were those putrid matters abound, and the stench occasioned by them is almost insupportable, the health of the workmen and the inhabitants in the vicinity, is infinitely less injured, than we should expect to find it, from the powerful impression which such corrupt materials make on our senses.

The first person taken sick with Yellow Fever subsequent to the gale was Seth Waite, a lad 17 years of age, who had performed the voyage in the ship *Lucy Ann* last from Havana. His disease commenced on the 6th of September, as this vessel was proceeding from the Quarantine ground to the city, and he died in the Lazaretto the 11th of the same month. A seaman died of yellow fever August the 13th, on board of this ship, and the Mate who was the last person taken sick, was convalescent and walking the deck the 20th of August, the day she arrived. This vessel coming from an unhealthy port, having lost one of her crew with the Yellow Fever, and the Mate having been sick with the same disease on the passage, were sufficient to excite our suspicion that she was an infected vessel; although she had only stone ballast on board from the time that she sailed from New Orleans until she arrived at this port, via Pensacola and Havana, and her hatches had been off the whole voyage. It has been remarked that her ballast was all overhauled and every part of the hold and forecastle was ventilated and

white washed ; between decks were scrubbed with an alkaline solution and afterwards varnished. This was done nine or ten days before Waite was taken ill. This young man was actively employed for several hours in the afternoon and night of the 3d of September, during which time his clothes were drenched with rain. Three days after this occurrence he was taken ill, which was eighteen days subsequent to any sickness on board of his vessel. Was this disease lurking in his system for two or three weeks ? could it have been caused by the violent motion of his vessel, disengaging a greater quantity of foul air during the storm, or by the vitiated air from the ship *Ann Maria* alone, or combining with that from his own vessel soon after she was hauled along side of the *Ann Maria*, and thereby rendering the atmosphere about them more loaded with contagion, than either vessel could alone produce ? In answer to these queries it may be said, that the disease would have appeared immediately after his great fatigue and exposure in the gale if it had been in his system 18 or 20 days. If it arose from an increased quantity of infected air disengaged during the storm by the great motion of his vessel, it probably would not have commenced as early as the third day after the gale, for not one of the cases which occurred took place in less than five days after their first exposure to infected vessels. I am therefore of opinion, that his disease was caused by the contagion from the ship *Ann Maria* in addition to that of his own vessel, for his ship was hauled along side of her the 31st of August, and he had to pass over her deck to get to the wharf. Six days after this date he was taken ill, which period of five and six days will appear by the majority of the cases subsequently stated, to be the usual time that this disease commences after its contagion has been received into the system.

The Rev. Dr. Hardenburgh having engaged to officiate in the Church near the Quarantine ground on Sunday, September the 2d, visited his friend Capt. Wm. Van Beuren, the preceding Saturday afternoon, when he amused himself two

hours in fishing on the United States' wharf, at the bows of the ships Ann Maria, and Lucy Ann. He returned to the city on Sunday afternoon. The next Friday, Sept. the 7th, (six days after his exposure to the contagion of the above named ships) he was taken sick and died the 12th. If his disease was Yellow Fever, he without doubt received the infection while on the United States' wharf. Jack Brittan a coloured worked on the United States' wharf at the cargo of the ship man, L'Herondelle and other vessels, from Monday Sept. 3d, before the gale commenced, to Saturday noon the 8th, at which time he complained that he was unwell. He went of home, and died the 14th of Sept. In this case the disease began in five days after he was first employed at the United States' wharf. Miss Sarah Ann Van Beuren, aged 11 years, was on the United States' wharf Tuesday Sept. the 4th, and near to the brig Mentor, which was driven on shore before her father's house. Five days after she was taken sick, viz. Sunday the 9th, and died the 13th of Sept. John Hawthorn, who was on a visit to his father at Staten Island, was employed several hours on Tuesday, Sept. the 4th, in pumping out the ship Amphion, lying at the wharf. He was taken ill on Sunday morning the 9th, and died the 13th of Sept. Here we also observe the period of five days intervening between his going on board the Amphion, and the time he was taken sick. Peter Andreas a seaman belonging to the ship Lucy Ann, was taken unwell September the 9th, and died the 14th, this is a period of five days after his great fatigue in the storm on the night of the 3d, which time he would be more predisposed than before to be infected with the contagious air which was probably disengaged from its confinement, by the concussion of the vessel against the wharf and shore. Edward Wilson, John Young, and James Williams, with eight other men were sent on board the ship Ann Maria, Wednesday afternoon, Sept. the 5th. They were all engaged in discharging her ballast until Saturday afternoon the 8th. On Monday the 10th, they returned to Staten Island for employment, but they were taken sick in

the afternoon, and sheltered themselves in Captain Arnett's hay loft, until we were informed of their illness the next day, when they were brought to the Hospital; where the two first named died September the 13th, and the last on the 14th. In these three cases we perceive the remarkable coincidence of those men becoming ill at the same time, and that in five days after they were first exposed to the contagious air of the ship *Ann Maria*. John Patterson first came to the Quarantine ground for employment, the 5th or 6th of September; and worked on board of the brig *Nancy*, from Havana, and some other vessels. On the 11th of Sept. he was taken sick and died the 21st of that month. Here again we have the same period of five or six days after this man was first exposed to contagious air before he was taken ill. A girl about 13 years old who carried refreshments to the dock builders several times a day, while they were working on the United States' wharf, was taken ill Sept. 11th, and died Sept. the 16th. This is a period of seven days after the gale. But the wharf was so much injured by the storm, that the men discontinued their work, until a new contract was made to finish it. It is probable therefore, that this girl did not go there until a day or two after the storm. Christopher Chergold, three or four days after the gale, went on board of several vessels that were stranded, and also on the United States' wharf. Five or six days after he first went on board of those vessels he became sick, and he recovered. Perry Roads one of the dock builders who was employed either three or four days after the storm to discharge or work at the cargo of the ship *L'Herondelle*, was taken sick the 12th of Sept. and died the 23d. In this case we notice the same period of five or six days, after he had been working either on board or along side of the ship *L'Herondelle*. This man and John Patterson had apparently struggled through the disease. We considered them as convalescent from the sixth to the ninth day of their illness, for they had no fever, they sleep well and relished their food; but Patterson who bled freely from the gums in the early stage of the disease, became comotose on the ninth day, when the bleeding from his gums

returned, and he discharged dark coloured blood freely from his stomach and bowels. Perry Roads, on the ninth day, lost his relish for food, and although he took his drinks and medicines freely, still he became hourly weaker, and had no pulse at his wrist, 24 hours before his death, yet his understanding was unimpaired to the last. John White, Quarantine gate-keeper, was frequently on the Public wharf in the performance of his duty; he slept one night on board of the brig Mentor, and was taken sick the 13th, and died Sept. the 18th. Another daughter of Capt. VanBeuren's who attended on her sister during the first part of her illness, was attacked with fever the 14th of Sept. five days after she first nursed her sister. This young lady recovered. Captain Slight, who on the 6th of Sept. was first employed in transporting the cargoes of vessels from the Public wharf to Brooklyn, took in a second load on Saturday the 8th, and slept that night on board of his lighter, which was lying at the United States' wharf. He mentioned to his relations when sick, that the last bale of cotton he put on board of his boat, was so offensive as to produce excessive vomiting, and he was impressed with the belief that he caught the fever from it. But I am of opinion that the langour which consequently ensued after violent vomiting, and his apprehension of danger from the cotton, predisposed him to be infected by the contagious atmosphere which, at that time, prevailed about the wharf, and in which he slept the same night. He was taken sick the 14th of September in the morning, five days after he slept at the Public wharf, and died on the 19th. Capt. William Arnett, an Inspector of the Custom-House Department, was informed on Tuesday afternoon, Sept. the 11th, that three men were sick in his hay loft near to his house: as he was alarmed for the safety of his family, he went there to have them removed, and the same evening at Dr. Harrison's he expressed his apprehension, that he might have taken the fever from those men, and he was impressed with the belief that he would get safely through the season, provided he should escape that exposure. Early the next

day he removed his family to Elizabethtown, and on Tuesday morning September the 16th, when there on a visit he was taken sick. This was precisely five days after he was in the hay loft with the sick men, and he died the 20th of that month. While the brig *Andreas* was lying at the United States' wharf, her Captain, Andrew Ronning, and Michael Dolman, one of her seaman, were taken ill on the 17th of September : and James Watkins, a seaman who belonged to the schooner *Native*, then at the south side of Staten Island, also sickened the same day. The first recovered, and the two last died on the 23d of Sept. Francis Morgan and Peter Howard went to work on board of the ship *Ann Maria* the 12th of Sept. with sixteen other men, and continued there until the afternoon of the 18th. The same evening they began to complain. This was six days after they were first exposed to the contagion of this vessel : they both recovered. Capt. Van Beuren was taken ill the 23d of Sept. and recovered. Magnes Landbour, a seaman who belonged to the brig *Andreas*, sickened on the 26th of Sept. and recovered. Ephraim Tompkins, the last person who was taken sick with yellow fever at the Quarantine ground, went on board the ship *Ann Maria* with seven other men, on the 2d of Oct. He became ill on the 7th, five days after he was first employed in this vessel, and he died on the 11th. All those persons whose cases have now been stated, were either on board or along side of infected vessels, except Capt. Van Beuren's daughter, who was attacked the day after her sister was buried. We are led to observe the remarkable circumstance, that twelve of those twenty-five cases, were taken sick on the fifth and sixth day after they were first exposed to infected vessels, viz. The Rev. Mr. Hardenburgh, Jack Brittan, Miss Sarah Ann Van Beuren, John Hawthorn, Edward Wilson, John Young, James Williams, John Patterson, Christopher Chergold, Francis Morgan, and Peter Howard. This important fact may enable us to account for the disease occurring at the precise period of five and six days, in seven more of the twenty-five cases, viz.

Seth Waite, Peter Andreas, the Girl who attended on the Dock Builders, Perry Roads, Miss Mary Van Beuren, Captain Slight, and Captain William Arnett, who before that time had been in an infected atmosphere, yet they escaped the disease until they were exposed to a more concentrated contagion, or having at such particular time a greater predisposition to take the fever than they had before. The remaining six persons, viz. John White gate-keeper was taken ill twenty days after the infected vessels were brought to the wharf, and nine after the brig Mentor was driven on shore very near to the place where he was stationed to keep the gate; but when he slept on board the brig Mentor cannot be ascertained: Captain Ronning, Michael Dolman and James Watkins, sickened thirteen days after their vessels were driven to the wharf: Magnus Landbour was taken ill twenty two days after the same period: and Capt. Van Beuren one month after the infected vessels were hauled to the United States' wharf, and nineteen days after the gale. If the inquiry had been made, it is probable that some special circumstances, might have been discovered in each of those six cases, five or six days previous to their illness, as occurred in the seven cases before stated. But our attention was not drawn to the fact, that so many of those persons who had the Yellow Fever, were taken sick at this particular period after their exposure to the cause of it, until the pestilence had ceased and they were discharged or had died. It may be well to remark that Capt. Van Beuren removed with his family Saturday September the 15th from the Quarantine ground, to a place where, he was breathing a pure atmosphere. This would make him more liable to take the disease when he opened the stores on Monday, as the infected air in them would probably be rendered more malignant by their being shut on Sunday. Six days after he was taken sick.

The Sinclair family have not been enumerated in the order they sickened, with the other persons who had the Yellow Fever, because all those persons had been previously ex-

nett and Miss Mary Van Beuren, appear to have derived their disease from personal contagion, yet the evidence may not be considered conclusive. It has been stated that the Sinclairs resided in the north basement story of the hospital, 940 feet from the United States' wharf, and 275 feet from the brig Copernican, the nearest vessel to their abode. She was from St. Jago de Cuba and her crew had been healthy the whole voyage. After she was driven on shore the mate's wife and child lived on board with impunity twenty days, during which time the damaged cargo was discharged. Mr. Vanderbilt's family, consisting of ten persons, lived 125 feet nearer to this vessel than Sinclair's and the same wind that would blow the foul air of this vessel upon the dwelling of the latter, would also carry it to the former; nevertheless, Mr. Vanderbilt's family all enjoyed good health. The brig Andromache was also 125 feet nearer to Vanderbilt's, and 50 feet nearer to my residence, than to Sinclair's. Hence it may be inferred that they did not take the disease from those two vessels, or all those persons from the city who resided on board, and the two families before mentioned, whose members were more than three times as numerous as the Sinclair family, could not have escaped the disease. As we do not know how far contagious air may be conveyed by a current of wind, and produce its deleterious effects, it may be contended that the Sinclair's derived their sickness from the infected air of other vessels, although at a greater distance from their residence than those two brigs. I would reply that no other vessel suspected to be infected, but those two brigs, were nearer to their residence than 750 feet, and as four out of six families, whose houses are within the limits before described, lived twice as near to those vessels as the Sinclair's, and continued healthy with the exception of Captain Arnett, their disease cannot be traced to that source. In further corroboration of those inferences we have one fact directly in point, that the contagious air on board of vessels is not communicated 250 feet in a pure atmosphere, aided by a favourable current of wind. The ship Ann Maria

was indisputably an infected vessel, for the men who worked on board of her and were taken sick, could not have derived their disease from any other source, as she layed 630 feet from any other vessel. Now this vessel remained six weeks only 250 feet from Mr. Fountain's house, during which time the wind frequently blew in a direction from this vessel towards his house, yet none of his numerous family or boarders were taken sick. This vessel lay 25 feet nearer to Mr. Fountain's than the nearest stranded vessel did to Sinclair's residence. Therefore, we must look for some other cause than the above to account for the Sinclairs' sickness; and the first enquiry would be to ascertain if they had been on the United States' wharf, or near to any of the infected vessels? Both of Sinclair's daughters assured me that they had not been nearer to that wharf, or to any of the vessels than their dwelling for some weeks before the gale; and they and their father informed me that Mrs. S. never was nearer to any of the vessels than her residence, except in going to and from the Health Officer's house twice, she passed as near as 100 feet to the brigs Copernican and Andromache, and about 300 feet from the other suspected vessels. James Sinclair, Health Office boatman, had been on the United States' wharf, and among the infected vessels, but not after the 11th of September, and as he was not taken sick before the 28th of that month, it is probable that he received the cause of his disease from another source. Having fully examined into the situation of all vessels which could have any influence in causing the sickness which prevailed in the Sinclair family, and finding none to which we can ascribe it, we will now endeavour to account for their disease from personal contagion and foul clothing. Mr. and Mrs. S. visited Hawthorn during his illness, and the 13th of September they and their daughters were at his house, making arrangements for his funeral. Mrs. S. did not visit any other person who had Yellow Fever besides Hawthorn; but on Monday the 17th of September she received the bedding and clothing of Wilson, Williams, Young and Wait, who died

on the 11th, 13th, and 14th of the same month, some of which, particularly Waite's, was so filthy, that she directed her daughters to go out of the wash-house, while she carried the clothing through it to the yard, where she put them into cold water. On the 22d, early in the morning, five days after she had these foul clothing in her arms, she was taken sick and died on the 26th of September. Her daughter Jane, from the commencement of her mother's illness, so frequently laid her head on her mother's bed and kissed her, that her father twice took her away as he was apprehensive that she might contract her mother's disease. She was taken sick September 27th, five days after her mother was first taken ill, and she died October the 4th with black vomit, previous to which time she had been three days under a free salivation. James Sinclair was in bed with his wife when her fever commenced, and he was taken sick the 28th of September, six days after he was exposed to her contagious fever. He died the 3d of October. Sally Sinclair slept with her sister the same night that Jane was taken ill, and five days afterwards, on the 2d of October, she was taken sick, and recovered. Could those four persons receive the infection from one and the same source, viz: from Hawthorn? I am of opinion that they did not take the disease from him, (and the daughters did not go there until his death to make his shroud,) or some of them would have been taken sick in five or six days after they were at his house, and it is probable that all of them would have been taken ill within a few hours of each other, as occurred in the cases of Wilson, Young and Williams, who went on board the ship Ann Maria together, and sickened in an hour or two of each other. The same circumstance happened in the cases of Morgan and Howard. But Mrs. S. was not taken sick until the lapse of eleven days, and the daughter who last sickened not until twenty-one days after they visited Hawthorn. These reasons are conclusive in my opinion that the Sinclairs did not contract their malignant fever at Hawthorn's, but, that Mrs. S. caught her's from the foul clothing she had

in her arms, her husband and daughter from her, and Sally S. from her sister Jane. The three last were not exposed to the infected clothing, consequently they must have taken the Fever from personal contagion. I am lead to this conclusion from the important fact, that three of them became ill in five, and the other in six days after, being exposed to the special exciting causes before related; for their becoming sick at that particular period, cannot be considered as the effect of mere accident, otherwise, it would not have occurred in nineteen cases out of twenty-five, who derived their disease from the infected vessels at the Quarantine ground.

From the foregoing faithful and minute statement of facts appertaining to, and connected with the late fatal Fever which prevailed at the Quarantine ground last fall, are drawn :

First, That part of Staten Island where the Lazaretto is situated, is as healthy as any place in the United States, and the contagion of Yellow Fever never before prevailed among the inhabitants. No local impurities having existed there that could generate a Malignant Fever, some persons might attribute the pestilence to the cargoes which were damaged in the memorable September gale: but as those cargoes were so recently injured, and would have been totally lost if retained only a short time at Quarantine, they were permitted to be taken away before they were in such a state as to generate foul air; and as a proof that the fever was not produced from this cause, I refer to the circumstances of particular vessels herein stated. In those vessels whose cargoes were most injured, we do not perceive that they were rendered in a more unhealthy condition in consequence of such injury; but on the contrary, those vessels which arrived in stone ballast, with their hatches off, all the passage, from very sickly ports, as Havana, were the most fatal to the persons who remained on board of them.

Many vessels were driven so far ashore, that at low tide they were entirely out of water, and they were but partially

in it at high water. Some days after the gale, the worms and shell fish that adhered to their bottoms, died and became putrid, which rendered those vessels offensive; and to this cause, some may attribute the fever. Those small worms being imbedded in the water soaked bottoms of vessels in their natural situation, and the shell fish adhering by suction, would not die in less than four or five days, while undisturbed in their situation or attachments; and admitting that they became putrid immediately after their death, still a few days must necessarily elapse before any injurious effects would ensue from them. Therefore a Malignant Fever from this cause could not take place in less than ten or twelve days after the vessels were driven on shore; but the Yellow Fever had actually commenced in six cases, seven and eight days before this period, and even before the offensive smell from those vessels was noticed. That the fever did not arise from that cause, is further confirmed by the fact, that in those places where the air was rendered most impure from those insects, no person was taken sick, except Mr. James Ward, who had Remittent Fever. While at the United States' wharf, where the principal cause of the pestilence existed, none of the vessels which lay at, or near to that wharf were in the least offensive from putrid worms or shell fish, as the tide never left them dry. From the foregoing circumstances, it is evident that the Yellow Fever was not generated by any local causes existing at the Quarantine ground, but an imported disease, which existed in those vessels at the wharf previous to the gale, but was, no doubt, greatly increased by it, as it brought many more infected vessels near to the wharf, and consequently augmented the quantity of infected air at that place.

Secondly, I am of opinion that the Yellow Fever is contagious in the same manner as jail, hospital and ship fever, and is communicated from one person to another, through the atmosphere, and particularly in the impure atmosphere which exists in low, confined and crowded parts of cities, during the warm months of the year. From its contagious

character alone, can the sickness which took place in the Sinclair family be satisfactorily accounted for;* as they had not been exposed to any other source of disease than personal contagion, (and foul clothing in the case of Mrs. S. only.†) That part of the family who escaped the fever were two adults and two children, and they lived and slept in a building 80 feet from the hospital, near to the wash-house: they were often in the rooms with their sick relatives for a short time. From this circumstance, as well as many similar ones, it would appear that a continued exposure of some hours to the air of an infected room, or a very near approach to the sick, and repeatedly inhaling their contagious exhalations, in addition to a predisposition, is generally essential to contract an infectious fever. It is observed, that few, or none of those persons who respire infected air for a few minutes, are endangered by it. This circumstance will explain why so many persons escaped the disease, whose curiosity lead them to Staten Island to view the wrecks of the great number of vessels driven on shore at and near to the Quarantine ground. That the constitution frequently adapts itself to a contagious atmosphere, and resists its influence; the memorable fact which occurred in the year 1819, will clearly illustrate. At that time, nearly two hundred inhabitants who had been living a fortnight in

* James Sinclair had been among the infected vessels nineteen days before he was taken sick, but after that time, he was not more exposed to take the disease, than he had been during the nineteen years he was employed in the Health-Office Department.

† When clothing is tainted with the specific matter of Small Pox or Measles, those diseases will be communicated by such fomes, and they are admitted to be propagated by contagion, when taken in this manner, because the specific matter is not so altered, as to produce any other disease. Now Mrs. Sinclair having had a similar disease (*viz.* Yellow Fever) as Waite and others, whose clothing she washed, it must be allowed on the same principle, that her disease was also taken by contagion.

the infected district of Old-Slip, were furnished with accommodations at Fort Richmond, on Staten Island. After their removal, eight or ten persons were taken sick with Yellow Fever, that is, about one in twenty. Now if so small a proportion of those persons caught the Pestilential Fever, after inhaling an infected atmosphere, (a fortnight,) in which our medical opponents admit that the Yellow Fever is taken; with what propriety can they deny its contagious character, merely on account of its being seldom communicated from one person to another in clean and well ventilated apartments, and especially as fevers acknowledged by themselves to be infectious are not more frequently contracted than Yellow Fever, where similar precautions are used. Should several individuals of a family living in a pestilential district sicken in succession, our medical opponents would attribute the Yellow Fever to the infected atmosphere arising from domestic causes, and not to contagion. Surely we have much greater reason to ask them to show how any person can escape the infection after having lived in it a fortnight, than they have to doubt the contagious character of the same disease, because so many escape the infection from the sick, whose apartments can seldom be contaminated where due attention has been paid to cleanliness and ventilation.

Because the Yellow Fever is not as contagious as Small Pox, Measles or Plague, is it therefore to be considered as non-contagious? Are those diseases equally contagious? Is each of them equally contagious at all times and at all seasons of the year? Are they uniformly as malignant or fatal every time they occur? Facts give a ready answer to these questions, that there is a wide difference among them, not only in the degree of their contagious property, but even in the active contagious character of each disease at different times and seasons of the year. What is the standard to which we must appeal to know when a disease is to be termed contagious or non-contagious? There is so great a variation in this respect among those diseases admitted to be

contagious, and the same disease at different times; that there does not appear to be any definite rule laid down to govern us. The best practical one would be to consider those diseases as contagious or infectious, which are capable of producing a similar disease, whether it is communicated to every person who may be exposed to the contagion, or only to one person in a hundred. When a disease on this principle is generally admitted to be contagious or infectious; by carefully observing the circumstances in which it is more or less frequently communicated, we shall in time be enabled to judge to what degree it is so, to know the risk incurred by exposure to it, to take suitable measures for its extinguishment, and provide comfortably for the sick with the least hazard to their friends and attendants.

Thirdly, I am of opinion that the Yellow Fever is produced from a specific contagion, for the twenty nine persons who sickened in consequence of their intercourse with the Quarantine ground, all contracted the same disease; twenty one of whom died, and fourteen of that number had that fatal symptom black vomit. If this disease is only a higher grade of Bilious Fever; and is not produced by a specific contagion, but from marsh miasmata or animal and vegetable putrefaction, as inculcated by our professional opponents on this subject; would not some of the diseases which ensue from those causes such as bilious remittents, remittents and intermittents have also appeared at Staten Island, from the same cause which occasioned the Yellow Fever. No idiopathic febrile complaint existed among the inhabitants in the neighbourhood of the Quarantine ground previous to the gale.* If therefore it is a fact that Yellow and Bilious Fevers originate from one and the same cause, a fairer test could not be conceived to show their identity, than what actually existed at that time at Staten Island. If either disease had prevailed there, doubts might have arisen, whether both fevers were not derived from the same origin. For instance if

* One or two cases of Remittent and not one of Bilious Fever occurred within a mile of the Quarantine ground the whole season.

Bilious fever had prevailed at Staten Island, before the 3d of September, and some of the inhabitants who had been previously exposed to the miasmata which gave origin to it, should be taken ill with Yellow Fever, after having been exposed to its contagion on the United States' wharf or on board of any of the infected vessels at that place. Our medical opponents would not allow that the disease was derived from the infected place or vessels, but attribute it to the same source as gave rise to the prevailing Bilious Fever, and consider such a case as a proof of the identity of the cause of both diseases, and call it a higher grade of Bilious Fever. But we who believe that they are different diseases, and originate from different sources, would ascribe such an occurrence to the infected vessels, and not the local causes which had previously existed and had produced Bilous Fever. But the facts now before us, furnish no pretence for cavelling. As we find no febrile disease prevailing at Staten Island before the gale, we also perceive that the Yellow Fever was the only one which took place after it. As Bilious Fevers are changed into common Remittents and Intermittents, ought we not to meet with Yellow Fever changing into those diseases also, if it is only a higher grade of Bilious Fever? We further observe that Bilious Remittents after becoming Intermittents, are again converted into Bilious Remittents and prove fatal. Does the same principle of transmutability obtain in Yellow Fever? If it does I have never been favoured with a view of such transmutation. If the dormant poison lurking in the system of a person who has Bilious Fever can be converted into Yellow Fever and such change depends upon the additional causes of bad air, neglect of cleanliness, want of attendance and of suitable remedies, then I know of no place more likely to accomplish this than the confined forecastles of coasting vessels. Many persons with Bilious Fever are annually received into the Lazaretto under the above circumstances; yet I have never met with Yellow Fever cases in such vessels during sixteen years residence at the Marine Hospital on Staten Island,

except when it occasionally prevailed at some southern port : Although Bilious Fever has been nearly as fatal some seasons, as Yellow Fever usually is, yet I have never seen it terminate in Black Vomit.

Cold weather, and particularly frost has been long observed to destroy the contagion of Yellow Fever, but not to put an end to Bilious Fever. Can this difference be accounted for, on the principle that the former is only a higher grade of the latter ? Is it usual for an agent that removes the greater effect of any cause, not to put as effectual a stop to a lesser degree of the same cause ? Such an occurrence is contrary to the common course of events, and requires a reasonable explanation before we can consider those Fevers to be one and the same disease. The contagion of Yellow Fever has been dissipated even in warm weather, when the foreign source has been extinguished either by purification or removal, and the inhabitants of such district have returned to their houses with impunity during warm weather, after the purification was accomplished. Since experience has taught us that this fatal malady can be arrested in populous places by deserting the infected spot, its ravages have become limited. If the same measures had been pursued in this city in the years 1795 and 98, and 1803 and 5, as in the year 1819, it is probable that an equally favourable result would have ensued. On the principle of contagion this great difference between the number who had this disease in the former and latter periods, may receive a satisfactory explanation. The inhabitants remaining in an infected district, would daily become sick and contaminate the atmosphere with its specific contagion. This would produce the fever in others, and hence its sphere of action would be constantly extending its limits far beyond its original bounds. If the Yellow Fever was of local origin and non-contagious could its limits be extended by the inhabitants remaining and falling victims to it : and would it be arrested in its bounds by the removal of the same inhabitants ? A mere local cause producing a non-contagious disease, could not effect the inhabitants residing be-

beyond the limits of its operation ; and whether the inhabitants of such infected district remained or removed from it, they could not have the least agency in extending it. But in the instances above referred to, the Yellow Fever beginning at a point daily extended its baneful influence, when the inhabitants only partially removed until upwards of 2000 fell victims to it in the year 1798, while in the year 1819, by the timely removal of the inhabitants about 60 persons died and it did not extend beyond the originally defined limits.

Fourthly, Most of the specifically contagious diseases make their appearance in fixed periods, after the contagion is received into the system. By reviewing the twenty-nine cases herein enumerated, we are furnished with too many facts where this disease has been taken, after a given period to suppose that it could be the result of mere accident ; but it must be considered as something peculiar to this disease, and a strong presumptive evidence of its specific character. Ten cases of the twenty-nine sickened on the 5th and 6th day after their first exposure to the contagion, and eleven more were taken ill at the same period of time, after they were placed in situations more immediately under the influence of its contagion, than they previously had been, as particularly described in each case. To this number may be added the only two persons who contracted this fever the last summer by shipping on board of infected vessels at Quarantine, one on the fifth, the other on the sixth day after they embarked ; the youngest son of Mr. Daniel Van Duzer was also taken ill on the sixth day after his brother was taken sick.* This is another instance of personal contagion taking place in the pure air of the country, These twenty-six cases make more than five sixths of the whole

* Mr. Van Duzer resides near half a mile from the Lazaretto. His eldest son, who was master of a lighter, and was engaged in taking the cargoes of infected vessels to the city, in which employment he no doubt contracted the Yellow Fever of which he died August the 18th. His youngest brother sickened on the 19th of the same disease : this occurred about three weeks before the disease prevailed at the Quarantine Ground.

number, who were taken ill with Yellow Fever at Staten Island the last season.

I have now, agreeably to your request, endeavoured to furnish you with a faithful narration of facts, as they have occurred at Quarantine, and have offered some observations which appeared to me to have an immediate bearing on this important subject. I cannot suffer this opportunity to pass without expressing my firm conviction that rigid Quarantine regulations are essentially necessary to guard the inhabitants of our commercial cities against the introduction of pestilential and infectious diseases.

That the contagion of Yellow Fever lies dormant for a long time in vessels, appears from the facts of the last as well as other seasons. It arises from the impracticability of destroying the contagion which is concealed not only between the timbers, and the space between the plank and ceiling of vessels, but which may be attached to the said timbers and planks, and is not brought into active operation, until elicited by a continued warm and congenial temperature, or some violent concussion of the vessel. The Board of Health have now the power to keep all sickly vessels at Quarantine, or other places where the hazard of being lost in violent gales is less than at Staten Island, after they have performed thirty days Quarantine; and have been purified as far as practicable under the direction of the Health Officer. Therefore no further provision is deemed necessary to obtain the benefit of this salutary restriction, than its rigid enforcement. But I beg leave to suggest for the consideration of the Board the propriety of adopting some plan to guard against vessels which arrive here between the 1st of June and the 1st of October from Europe and the British Provinces of North America, which having previously sailed from sickly ports in the West Indies, may retain the contagion of Yellow Fever in a latent state, as the coolness of the climate in the places they last sailed from would prevent its becoming active; but which contagion might be disenga-

ged from those vessels while lying at our wharves in very hot weather and occasion pestilence.

Permit me, Sir, to tender to you, the Board of Health, and my colleagues, my grateful thanks for the prompt and efficient aid, which they have at all times rendered me, in carrying into effect such parts of our Quarantine law, the execution of which are particularly entrusted to the superintendance of the Health Officer, and to congratulate you on the efficacy of those measures that were taken in this city in conformity with the provisions of the health law, which through the blessing of Divine Providence have preserved the public health.

With great respect, I remain,

Your very obedient, humble serv't.

JOS. BAYLEY.

New-York, February 21st, 1822.

