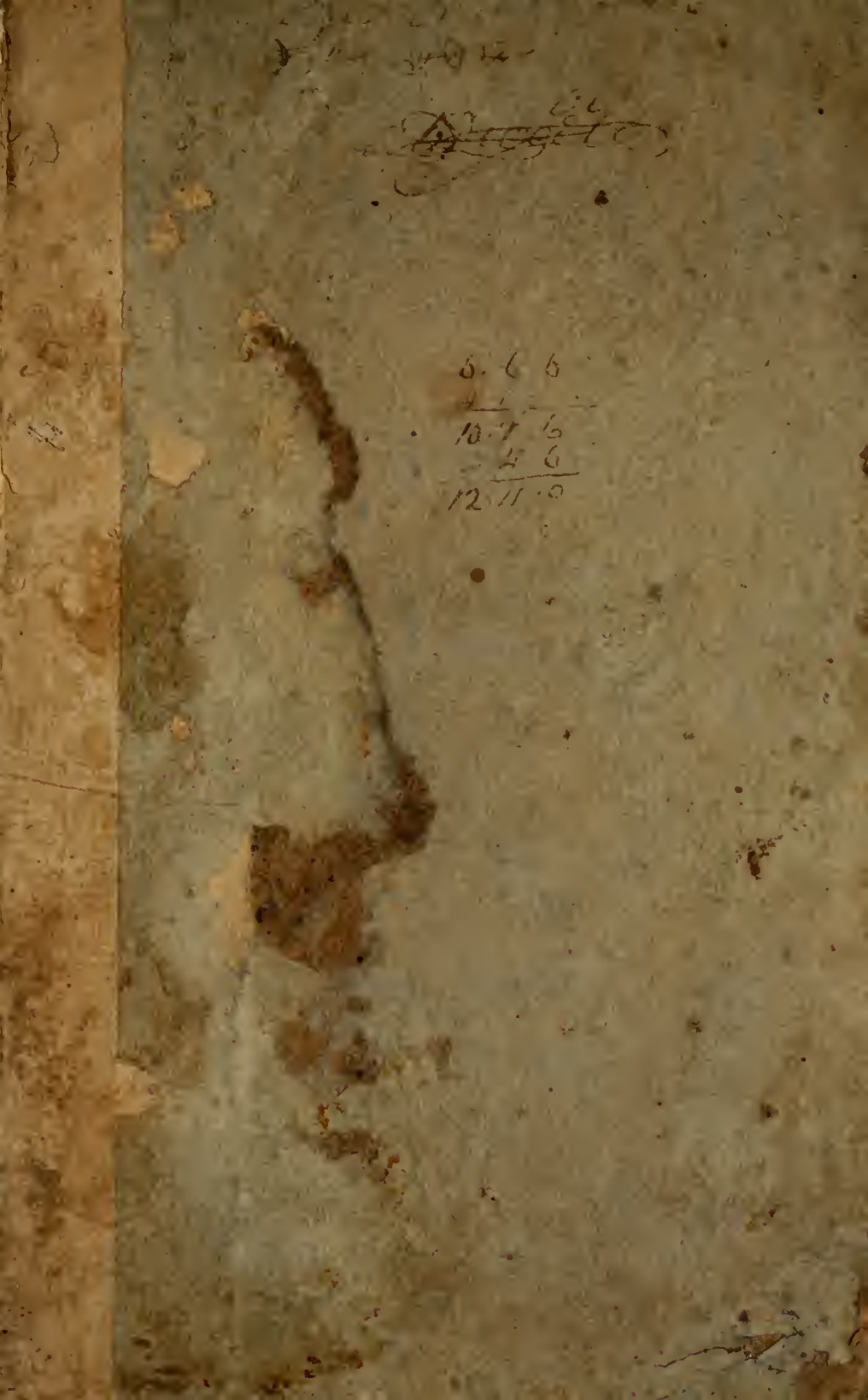

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DURING PART OF THE

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By RICHARD BAYLEY.

NEW-YORK:

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—1796.—

PREFACE.

THE following ſketch of the probable cauſes of the late epidemic, as they appeared to the writer, with the treatment which proved moſt ſucceſsful in his own practice, as well as in that of ſome of his friends, is reſpectfully offered to the peruſal of his fellow citizens, as well as to the practitioners

tioners of medicine; from whom he expects the exercise of that candour, of which the best judges are commonly the most liberal, and which he is conscious it very much requires.

R. B.

New-York, May 30, 1796.

AN

AN

ACCOUNT, &c.

THE epidemic fever which made its appearance in this city, at the latter end of the month of July laſt year, and which occaſioned a degree of mortality among the people never experienced in ſo ſhort a ſpace before, afforded matter of much ſerious converſation, and gave riſe to a great diverſity of opinion. An idea was entertained by ſome, and this idea was, by others, induſtriouſly propagated abroad, that the diſeaſe was imported from the Weſt-Indies, and that it was *contagious:* while, on the other hand, many contended that a concurrence of local circumſtances, which derived an uncommon activity from a *peculiar conſtitution of the air*, were alone ſufficient to account for its production.

It

It is the main object of the writer of this pamphlet to lay before the public a few facts on this important ſubject; and in doing this, he is conſcious that the chief merit of theſe will conſiſt in the diligence with which they were collected, and the fidelity with which they are detailed. He ſhall purpoſely avoid attacking any particular doctrines in medicine, relatively to the nature of the fever in queſtion; and the ſame temper will incline him to paſs, without animadverſion, the practice of thoſe who have ſtood deſervedly high in their profeſſion. He will therefore hold himſelf reſponſible only for a *faithful narrative*.—It has, indeed, been thrown together under circumſtances very unfavourable to regular compoſition; but as it ſprung from no vain conceit of ability to render that clear, which has long been involved in obſcurity, he thinks he may rely on the purity of his motive for publiſhing it, as a ſhield againſt the ſeverity of criticiſm. The motive, as

it

it firſt ſuggeſted itſelf to his mind, was none other, than a deſire to point out the *real cauſes*, *as they appeared to him*, *of the late epidemic*, and thereby, in ſome degree, to moderate individual apprehenſion, and quiet popular alarm.

At the firſt appearance of the diſeaſe, the following reports were diligently circulated, and very generally credited, viz. that Dr. Treat, then health officer of the port of New-York, had viſited the brig Zephyr, juſt arrived from Port-au-Prince; that he found the crew ſickly; that ſeveral men had died on the paſſage; that a boy had died the morning of her arrival; that Dr. Treat had incautiouſly opened the dead body; that it was very generally tinged with a yellow colour; and that it was extremely offenſive to the ſmell.

How correſpondent theſe reports were with truth, will hereafter appear, from a ſtatement of facts, ſubſtantiated by the teſtimony of indubitable authority.

A few

A few days after Dr. Treat viſited the brig Zephyr, about the 20th of July, he was ſeized with fever. The manner of the attack, the nature and ſeverity of the ſubſequent ſymptoms, attended with a yellow countenance, and a ſimilar tinge of the ſkin generally, were ſuppoſed to conſtitute the diſeaſe the *yellow fever*.

About the ſame time that Dr. Treat became indiſpoſed, a fever, reſembling that of which he died, made its appearance on board the ſhip William, ſaid to be then lying at Fitch's wharf, nearly oppoſite Dover-ſtreet. Shortly after, Auguſt 1ſt, the family of Mr. Jenkins, living in Water-ſtreet, near Dover-ſtreet, was attacked with fever, which was ſuppoſed to have been communicated from the ſhip William.

At firſt it ſeemed rather extraordinary, that the ſhip William, which had ſailed directly from Liverpool to this place, and whoſe men had been healthy during the paſſage, ſhould have contained matter of

a con-

a contagious nature, which only operated upon the crew in producing fever ſeveral weeks after her arrival.

This difficulty, however, was ſoon made to vaniſh, and the explanation became eaſy, when it was alledged that the brig Zephyr, on board of which no one was ſuppoſed to doubt that the yellow fever exiſted, had hauled along-ſide the ſhip William, and thus communicated the diſeaſe to the ſailors.

This account, plauſible in appearance, obtained almoſt univerſal credit, and though highly erroneous, as will hereafter be proved, was in a haſty and unauthorized way conveyed to Philadelphia, and, no doubt, afforded a conſiderable ground upon which the regulations that took place in that city, relative to this, were founded.

At this period the public mind laboured under great apprehenſions. A new diſeaſe was ſuppoſed to have made its appearance. Several deaths had already happened, the

nature of which, judging from the adventitious circumſtance of colour, had an aſpect extremely formidable. The progreſs, alſo, of the complaint, was ſuppoſed to be ſuch, that to thoſe who took things for granted, there remained but little doubt that the city would ſoon be overſpread with contagion: and it cannot be ſufficiently regretted, that the ſuppoſed contagious nature of the diſeaſe was too much urged by thoſe who ought to have been more reſerved in their opinion: for as yet no circumſtances had really occurred to countenance or juſtify the violent and exaggerated accounts which were circulated upon this ſubject.

In this ſtate of affairs the torrent of opinion became irreſiſtible. Fear and diſmay pervaded every mind; and thoſe of the inhabitants who were moſt alarmed, as well as many of thoſe who had no particular motive for remaining in the city, ſought refuge in the country.

In

In all ſituations in which our ſafety becomes a matter of conſiderable doubt, it is natural for us, after the panic, with which at firſt we are apt to be ſeized, has a little ſubſided, to enquire what the chances are that we eſcape the danger. Accordingly, thoſe who remained in the city, and were at the trouble of inveſtigating the ſubject, found, that many examples had offered, where the ſick had been attended with impunity: neither phyſicians, nor friends, nor attendants had imbibed any infection: and the circumſtances attending the very few inſtances which were ſuppoſed to favour the idea of contagion, were ſo extremely obſcure and doubtful, that nothing could be collected from them, of a nature at all ſatisfactory. In confirmation of this, we have the declaration of the Medical Society, in anſwer to a letter from Governor Jay, dated 24th of September, 1795:—"The "collective opinion of this Society, as the "reſult of attentive obſervation, is, that

"the

" the fever is not ſpecifically contagious;
" and we are confirmed in this opinion
" from the following powerful conſidera-
" tions, that neither relatives, nurſes, nor
" phyſicians have, ſave in one or two
" doubtful caſes, been infected by attend-
" ing on thoſe who have either recovered
" or died of the diſeaſe."

Much was daily urged from theſe facts; and finally, the terror with which the ſuppoſed contagious nature of the diſeaſe had filled people's minds, was in a great meaſure done away: and the confidence which took place, between the patient and phyſician, as a conſequence of this conviction, was, I have no doubt, in many inſtances, a mean which greatly contributed to the recovery of the ſick.

Thus it would appear, from what has already been ſaid, that a difference of opinion had exiſted, as well among the citizens as the phyſicians, with reſpect to the real origin and character of the late epidemic.

The

The object I have in view is to reconcile those opinions, as far as that can be effected, by bringing into one view all the facts I have been able to collect upon the subject. These shall form the principal data upon which any future reasoning may be founded; and if the sentiments I may advance are found to differ from the opinion of others, I hope that a liberal and candid communication may tend to our mutual information, and that the public may be benefited by our attempts to arrive at truth.

We shall, therefore, in the next place, proceed to examine the validity of the opinion, that the brig Zephyr introduced a contagious fever into this city. And the following letters from Messrs. Armstrong and Barnwell, and Miller and Hoope, are, in my mind, very explicit.

'*New-York*, 20*th Oct.* 1795.

'SIR,

'The brig Zephyr, Capt. Frederick Bird, 'arrived from Port-au-Prince on or about 'the 19th of July laſt, loaded with ſugar 'and coffee. The cargo came to our ad- 'dreſs. She hauled firſt to the Old-ſlip, 'where her cargo was unloaded. The 'veſſel leaked much on her paſſage from 'Port-au-Prince, which damaged twenty- 'two hogſheads of coffee in the ground 'tier: in conſequence of which the veſſel 'was ordered into the ſtream, where the 'damaged coffee was thrown into the wa- 'ter, under the inſpection of the Wardens 'of the Port. One boy died on board the 'day of her arrival, who had been ſick all 'the paſſage. The captain, mate, and 'one ſeaman, were taken ſick at Port-au- 'Prince, and continued ſo during the paſ- 'ſage; but were perfectly reſtored to health 'ſoon after their arrival. Dr. Treat viſited

'the

'the veſſel on her arrival. The day was 'extremely hot, and he uſed uncommon 'exertions in the middle of it, to find the 'commanding officer on Governor's Iſland, 'to obtain permiſſion to inter the boy there. 'He complained on his return, that the 'day and exerciſe had almoſt overcome 'him.

'The veſſel, after ſhe was unloaded, put 'up for freight for Baltimore, and took 'on board her cargo for thence at the Cof-'fee-houſe ſlip. She was never near the 'ſhip William, which laid at, or near 'Fitch's wharf. During the delivery of 'the inward cargo we were on board every 'day, as were alſo the Wardens of the 'Port; and we have not learned that any 'perſon has been taken ill in conſequence.

'We underſtand that the captain pro-'ceeded to Baltimore in the veſſel, and 'the mate to Boſton. However, as they 'were more immediately under the direc-'tion of Meſſrs. Miller and Hoope, to

'whom

'whom the veſſel was conſigned, we refer
'to them for particulars in that reſpect.
'We were informed by Capt. Bird that it
'was ſickly at Port-au-Prince when he
'was there in June and July, which is ge-
'nerally the caſe at that ſeaſon, but that
'it was ſcarcely known among the French
'inhabitants, and fell chiefly on the Bri-
'tiſh and Americans. He alſo told us that
'the place was growing more healthy when
'he left it.

'We are, Sir, &c. &c.

'ARMSTRONG & BARNWELL.'

'*New-York, Oct. 20th, 1795.*

'SIR,

'The brig Zephyr, of Boſton, Capt.
'Bird, came addreſſed to our houſe from
'Port-au-Prince; her cargo, conſiſting of
'ſugar, coffee, and hides, was addreſſed to
'Meſſrs. Armſtrong and Barnwell. The
'brig hauled to the eaſt ſide of the Old-
'ſlip, and there diſcharged her cargo, ex-
'cept

'cept a quantity of damaged coffee, which 'was thrown into the Eaſt-river. The 'brig was then hauled to the end of Jones's 'wharf, below the Coffee-houſe, and took 'in her cargo for Baltimore.

'Capt. Bird and all his crew were ſick 'leaving Port-au-Prince, and one of them 'died the day or day after the brig arrived.

'The captain was in good health when 'he ſailed for Baltimore, and we believe 'the crew recovered ſoon after their ar-'rival in this city.

'MILLER & HOOPE.'

The foregoing letters afford an unequivocal teſtimony of the condition of the crew of the brig Zephyr, on her arrival in this port. They afford, alſo, a complete refutation of the aſſertion, that the Zephyr communicated a contagious fever to the ſhip William, the two veſſels having never been near one another: and, in ſhort, they ſhew, that, excepting the death of the boy,

the reports circulated concerning the Zephyr, at the firſt appearance of the fever, and indeed believed by many during its continuance, were altogether without foundation.

When it was diſcovered that the brig Zephyr had not been nearer the ſhip William than half a mile, ſo wedded were individuals to the idea of imported contagion, that they fixed on the brig Active, which had juſt arrived from Martinique, as the contagious veſſel. But the following letters from Meſſrs. Lawrence and Van Zandt will be found to contain facts as little favourable to the opinion, that contagion had been communicated from the Active, as has been proved with reſpect to the brig Zephyr.

'SIR,

'It affords us ſincere pleaſure to furniſh 'you with ſuch facts as came within our 'knowledge, concerning the brig Active,

'ſuppoſed

‘ ſuppoſed to have been one of thoſe veſſels
‘ which introduced a contagious diſeaſe in-
‘ to this city. The ſaid brig ſailed from
‘ this port on the 9th of April laſt, bound
‘ to the Weſt-Indies, navigated by Capt.
‘ Mathew Rogers, a mate, and five hands.
‘ After touching at ſeveral iſlands for a
‘ market, ſhe finally arrived at Martinique,
‘ where the captain diſpoſed of her cargo,
‘ and received in payment thirty-ſix hog-
‘ ſheads of molaſſes, and the reſidue in bills
‘ of exchange on this city. He alſo re-
‘ ceived on board, on freight, and conſigned
‘ to Meſſrs. Concklin and Loyd, merchants
‘ here, one hundred and thirty-four bales
‘ of caſſia, commonly called wild honey.
‘ This and the molaſſes conſtituted the
‘ whole of her return cargo. The ſaid
‘ brig ſailed from Martinique on the 30th
‘ of June, bound for this port, and arrived
‘ here the 22d of July. Seventeen days
‘ previous to her arrival, ſhe loſt one man
‘ by ſickneſs, and from information receiv-

‘ ed

'ed from the captain, he died with a fever,
'the nature of which he could not aſcer-
'tain, but ſuppoſed it was brought on by
'the uſe of liquor, of which the deceaſed
'would, previous to his ſickneſs, drink
'large quantities. After his body was
'committed to the waves, the captain, for
'three ſucceſſive days, had the birth, bed-
'ding, and every thing belonging to the
'deceaſed, carefully cleaned, under his
'own inſpection. The reſidue of her crew
'enjoyed a full ſtate of health during the
'voyage, and were all perfectly well on
'her arrival in this port. Her cargo was
'landed at Fitch's wharf, partly by her
'crew and partly by labourers: nor do we
'know an inſtance of any one of them
'being ſick after their diſcharge from the
'veſſel. She remained at Fitch's wharf
'about three weeks; at which time we
'diſpoſed of her to Mr. Orange Webb,
'merchant of this city, who immediately
'loaded her and ſent her to ſea.

'The

'The above is a true and perfect account of the brig Active. If you can draw any information from it that will aid you in your laudable undertaking, we shall enjoy the pleasing reflection of having, in a small degree, served the cause of humanity.

'We remain, &c.

'LAWRENCE & VAN ZANDT.'

We are indebted to Mr. Strong for the following:—

'SIR,

'In pursuance of your request, I yesterday saw Capt. Rogers, late master of the brig Active, who tells me he hauled along side of Fitch's wharf on Friday the 24th of July last, and that he began to break bulk the next day, being Saturday the 25th.

'He further assures me, that a number of his acquaintance were on board the brig every day, and that he has since seen

'several

'several of them, none of whom have been 'taken with the late disorder.

'I was repeatedly on board, and in the 'cabin: once in particular, before she 'hauled along side the wharf, I was in the 'hold of the brig, and examined the cargo; 'but as I was not taken with the disorder 'until the 5th of September following, '(although I lived near Peck-slip, where 'the disease first began to rage) I am confi-'dent I never took it on board Captain 'Rogers' brig.

'I am, Sir, &c.

'BENJAMIN STRONG.'

The preceding letters leave little doubt with respect to the healthful state of the brig Active. It appears that she arrived in port on the 22d of July: on the 23d she laid on the outside of a vessel at the end of Fitch's wharf: on the 24th she hauled into the slip; and on the 25th of July she broke bulk.

Hitherto

Hitherto it has been ſuppoſed, that the ſhip William alſo laid at Fitch's wharf; but the truth is, that this veſſel did not, at any period this ſeaſon, lie at that wharf. Her ſituation, at firſt, was at the wharf of Lawrence and Kipp, about fifty yards weſtward of Fitch's; and on the 24th of July ſhe removed to Rutgers' wharf, diſtant about half a mile from her firſt ſtation.

Upon a compariſon of theſe ſtatements it will appear, 1ſt, that the veſſels above named were never nearer one another than fifty yards; and, 2dly, that the day before the Active began to unload, the William was removed to the diſtance of half a mile. Thus it is ſhewn how little foundation there was for a report of a fever being communicated from the brig Active to the ſhip William.

The next ſubject of ſuſpicion was a parcel of cotton, which had been imported in the brig Caroline, and which was depoſited in the ſtore of Lawrence and Mott, at the foot

foot of Dover-ſtreet. It was reported that a man had thruſt his arm into a bag of damaged cotton, and that, when he withdrew it, the arm, from the virulence of the contagion, was of a livid colour. However extravagant this declaration may ſeem, there were not wanting thoſe who ſubſcribed to its credit. In ſhort, ſo infatuated were ſome of the inhabitants with the belief of imported contagion, that they ſuſpected every veſſel, which had arrived from the Weſt-Indies previous to the late epidemic, to have brought contagion in her.

With regard to the ſuſpected cotton, the following certificates will give the neceſſary information:—

" I, John Church, maſter of the brig " Caroline, of New-York, do certify, that " the fifty-one bales of cotton, ſhipped on " board the ſaid brig Caroline, about the " 20th of June, 1795, was purchaſed by " me in the neighbourhood of Lance and " Veau, and was never on board any veſſel

" but

" but the ſaid Caroline, until landed from
" on board her in New-York, about the
" 22d of July, 1795."

" We, the ſubſcribers, do certify, that
" we were on board the brig Caroline,
" which laid at Lawrence's wharf, foot
" of Dover-ſtreet, divers times on the 21ſt
" and 22d of July laſt—that we ſaw a
" number of bales of cotton wool on board
" the ſaid brig—that we examined the
" cotton by picking it open, and running
" our hands into the ſacks, for the purpoſe
" of aſcertaining its quality—that George
" Townſend did purchaſe one bale on the
" 22d of July, and retailed it out of his
" ſtore—that Selah Strong was not taken
" with the diſorder: Benjamin Strong was
" taken ſick on the 5th, and George Town-
" ſend on the 21ſt of September following.

" BENJAMIN STRONG,
" SELAH STRONG,
" GEO. & BENJ. TOWNSEND.

" *New-York*, 16*th Dec.* 1795."

I have thus advanced ſuch documents, upon the ſubject of imported contagion, as, from a careful enquiry, I have been able to collect. From this inveſtigation the public is in poſſeſſion of ſuch information, as may be made the baſis of a tolerably accurate judgment; and I have little heſitation in believing, that the concluſion naturally reſulting from the premiſes, will be extremely unfavourable, if not abſolutely againſt the opinion which ſome have ſo warmly embraced, that the cauſe of the late epidemic was imported contagion.

We muſt now take the liberty of recurring to a further conſideration of circumſtances relative to the brig Zephyr.

From the ſtatements contained in the letters already inſerted, regarding this veſſel, ſeveral facts of conſiderable importance are made to appear, viz. that no perſon died on board the Zephyr, during the whole of her voyage, except the boy already mentioned: that all thoſe of the crew who had been

been taken ſick at Port-au-Prince, and had become convaleſcent, ſoon got well after her arrival in this harbour; and that neither the wardens of the port, the conſignees, nor any other perſon who had been tranſiently on board the Zephyr, except Doctor Treat, ſuffered any bad conſequences from their viſits.—The queſtion then occurs, Did Doctor Treat take the diſeaſe, of which he died, from the Zephyr?

It was a circumſtance well known, that the health of Doctor Treat was generally impaired. His ſtomach was in a ſtate of conſtant diſorder; and this, independent of other effects, was, at particular periods, accompanied with ſuch extreme dejection of ſpirits, that he did not, as he had often aſſured me, expect to live from one day to another. The Doctor had been complaining more than common for ſeveral days before he viſited the Zephyr. He embarked in a ſmall open boat at mid-day, with a black hat on his head, and without an umbrella,

brella, which he had always been accuſtomed to uſe, to defend him from the ſun's rays. The day was calm, extremely hot, and the veſſel at leaſt one mile and a half from the place of his departure. It is alſo ſtated, that he was much fatigued, upon Governor's Iſland, in ſearching for the commanding officer.

Thus, then, it would appear as matter of fact, firſt, that Doctor Treat was indiſpoſed at the time he viſited the Zephyr: ſecondly, that in performing that duty he was expoſed, for ſeveral hours, to the extreme heat of the ſun; and, thirdly, that he encountered conſiderable bodily fatigue. If theſe circumſtances are well conſidered, and that peculiar ſtate of the weather, which prediſpoſes to fever, is taken into the eſtimate, is it unreaſonable to ſuppoſe that the fever with which Doctor Treat was attacked, might have originated from the operation of ſuch a combination of cauſes? Every candid phyſician will give a ne-

a negative anſwer to the queſtion. But we ſhall not be very ſolicitous to prove, that Doctor Treat did not contract his diſeaſe in this manner—We grant that he might have received *infection* from the Zephyr; but does it neceſſarily follow, that it ſhould have cauſed a *contagious* fever? A conſideration of the conſequences, in a variety of parallel caſes, will contribute much to the formation of an opinion upon this ſubject.—The following is conſidered illuſtrative of this point.

At the termination of the late war between the United States and Great-Britain, Colonel William Smith, of this city, was appointed, by General Waſhington, to reſide in New-York, with the conſent of Sir Guy Carlton, for the purpoſe of ſuperintending the evacuation of the country, and to ſee that it was performed agreeably to the treaty. In the exerciſe of this duty, he had frequent occaſion to go between the decks, and into the holds of veſſels. In the

the courſe of theſe viſits, he was ſeized with (what is commonly denominated a ſhip-fever) a bilious remitting fever. After a few days, the fever happily intermitted, and Colonel Smith ſoon recovered a tolerable ſhare of ſtrength.

It was thought proper to caution him againſt the danger he would incur by repeating his viſits on board ſhip. He anſwered, that the duty was indiſpenſible. The conſequence was, he contracted a ſecond fever. The firſt of the attack was attended with a ſenſe of coldneſs, which was ſoon ſucceeded by violent pain in the head. His countenance was fluſhed, and his eyes were very red. The third day his neck and breaſt took on a yellow appearance; and in forty-eight hours, the whole of his body became as yellow as an orange. From the acceſſion of his fever to its termination, his heat was ſo conſiderable, that on feeling his pulſe, or graſping his wriſt, the ſenſation communicated was ſimilar to

the

the ſting of nettles, or very fine needles pricking the hand.

Colonel Smith lodged at Mr. Depeyſter's in Pearl-ſtreet, and notwithſtanding the unremitting attention he received from the family, the diſeaſe was not communicated to one of his attendants.*

I have twice, in the purſuit of my avocations, imbibed infectious fevers—once on ſhip-board; and again on viſiting a priſon. I was handled very ſeverely in both inſtances, and deprived of my ſenſes ſeveral days during each confinement. My attendants were numerous, and vigilant; yet

* 'Sometimes only one man in a ſhip may be ſeized with the petechial, or with the yellow fever, while all the reſt continue unaffected: of this the Magnamine afforded an inſtance,' &c. &c. &c.

'Another perſon was ſent from the Raven ſloop, in the yellow fever, of which he alſo died; and yet no other perſon on board of thoſe two ſhips were, either before or afterwards, taken ill of ſuch fevers.'

'I have frequently viſited patients in fevers ſimilar to the above mentioned, in families, where an infection was not in the leaſt ſuſpected.'

Lind on Scamon, p. 213.

yet no one ſuffered from contact with my body, or from breathing the air of my chamber.

As favourable to the ſame concluſions with the above inſtances, and tending to illuſtrate the doctrine we are endeavouring to eſtabliſh, we ſhall here introduce the hiſtory of a fever which raged among the men of Monſ. De la Motte's fleet, in 1757.

A fleet, under the command of Monſ. De la Motte, ſailed from Breſt on the third day of May, 1757, for Louiſburg, in Nova-Scotia. A number of ſailors (about two hundred) who had been confined in Rochfort hoſpital, with putrid fever, and had become convaleſcent, were embarked on board the Glorieux and Duc de Burgogne, ſhips of war. Theſe ſhips had been two years in a ſtate of equipment, and moſt of that time at ſea; they, therefore, could not be ſuppoſed to have been very clean. The other ſhips of the fleet had lain ſome time in the harbour of Breſt, and were not in a very

very healthy condition. On board the different veſſels were alſo diſtributed four hundred ſailors, who had juſt returned from confinement in the Engliſh priſons. The ſhips' companies became ſickly on their paſſage, particularly thoſe of the Glorieux and Burgogne; and on the 20th of June they arrived at Louiſburg. The wind was fair during the paſſage, blowing moſtly from the ſouth-eaſt; and the weather was ſo favourable and temperate, that it was found unneceſſary to ſhut the port-holes or cloſe the hatch-ways.

As ſoon as the fleet arrived at Louiſburg, the different ſhips had their tents pitched on ſhore, for the accommodation of the ſick; and they were accordingly diſembarked immediately. The tents were pitched too near one another, and hence the ſick did not receive all the advantages which they might have derived from their ſituation.

The particular ſtate of the ſick during the months of July and Auguſt, their number, or the mortality which prevailed, is not mentioned. But it is obſerved, that the number of the ſick was greatly augmented during the latter part of September. This aroſe from two cauſes; firſt, from the neceſſity they were under of collecting all their ſtrength from the different veſſels, to finiſh works, in order to defend the city: ſecondly, from a ſevere gale of wind, which happened on the 25th of September, and threatened deſtruction to the whole fleet. Several ſhips were in particular danger, to ſave which, the united exertions of officers and ſailors were required; and in performing this duty, the men were unavoidably expoſed to exceſſive labour and extreme bad weather. After this, the ſick became more numerous; and by the 30th of October, the day on which the fleet left Louiſburg for Breſt, the ſick amounted to fourteen hundred. Of this number, four hundred

of

of the worſt caſes were left at Louiſburg, in bad lodgings, and under the management of few, and thoſe unſkilful attendants.

The fleet had not been at ſea more than ſix days, before moſt of thoſe who were ſick at the time of ſailing, with many others, died. The paſſage was attended with very boiſterous weather; and the ſea ran ſo high, that the ports were obliged to be kept ſhut. Under circumſtances ſo uncomfortable, the malady ſpread with great rapidity, and on the arrival of the fleet at Breſt, which happened on the 22d of November, the number of the ſick amounted to four thouſand.

Fifteen days before the return of De la Motte's fleet, the two ſhips of war, Bizarre and Celèbre, arrived in Breſt harbour from Canada. The crews of theſe ſhips were affected with a complaint ſimilar to the one which prevailed on board the Louiſburg fleet; and they had already ſent one thouſand men to the hoſpitals at Breſt. The hoſpitals, therefore, were found crouded; and

and for the accommodation of the ſick newly arrived, temporary hoſpitals were erected. Into theſe the ſick were hurried from the ſhips, in cold and wet weather, and thrown together in heaps (entaſſé pélé mélé). Under theſe circumſtances, little benefit was obtained from the means employed for their relief.

The diſeaſe raged, with unrelenting violence, from the 22d of November to the laſt of February. It began to diminiſh in the month of March, and ceaſed entirely in April. But it was remarked, that this cruel diſeaſe did not ceaſe until it had deſtroyed ſo many men, that thoſe who remained had, in conſequence, an opportunity of enjoying all the advantages of breathing a pure air, of cleanlineſs, and good attendance.

The number that died in the hoſpitals at Breſt, at this period, was not leſs than ten thouſand, beſides a conſiderable number in the city.

Of

Of the four hundred men left at Louiſburg, who appeared to be in a condition from which a recovery could not be expected, badly accommodated, and worſe attended, three hundred and eighty were cured.

The foregoing is an epitomized narrative of a voyage from Breſt to Louiſburg, in which is related the prevalence and mortality of a fever, which the author of the account denominates PUTRID, MALIGNANT, CONTAGIOUS, and PESTILENTIAL.

A conſideration of the circumſtances attending this expedition, and the ſtate of a conſiderable part of the men employed on the occaſion, will readily, I apprehend, explain the fatality attending it, without recurring to the ſuppoſition of the diſeaſe being, in its nature, eſſentially *contagious* or *peſtilential.*

It will have been perceived before this, that we have been ſomewhat ſolicitous to eſtabliſh

eſtabliſh a diſtinction between diſeaſes which are *infectious*, and thoſe which are *contagious*. By contagion we underſtand ſomething *peculiar* and *ſpecific*, poſſeſſing properties *eſſentially* different from any thing elſe. Thus the contagion of the ſmall-pox, the meaſles, &c. Thoſe diſeaſes do not require the concurrence of certain cauſes to render them contagious; they are ſo under *all* circumſtances. But other diſeaſes may, or may *not* be *infectious*, according to the conditional ſtate in which they are placed. Thus a fever ſhall continue days, or even weeks, without giving riſe to the leaſt ſuſpicion that it has, in any inſtance, been the cauſe of fever in any perſon, who may have been, either a frequent viſitor, or conſtant attendant: whilſt a fever, accompanied with the ſame ſymptoms and appearances, and not more violent in degree, ſhall be communicated from one to another, and extend to incalculable lengths, ſo long as the circumſtances exiſt which favour

favour its propagation. Agreeably to this difinition, may be explained the ſlow, or rapid progreſs of the fever of the Louiſburg fleet, at different periods.

To illuſtrate this more fully, we ſhall take a review of the circumſtances attending that fleet, from the time of its ſailing from Breſt harbour, to its return to that port, and the after diſpoſal of the men.

The convaleſcents from Rochfort hoſpital received on board the fleet, had been weakened by a previous diſeaſe; the nature of which we preſume not to have been contagious, becauſe no mention is made of it. They were ordered into ſhips which had been the greateſt part of two years at ſea, and in a condition, it is ſtated, not very favourable to the re-eſtabliſhment of health. The conſequence was, that moſt of theſe unfortunate men had a return of fever, and this fever became infectious. The fever, it is ſaid, was communicated to ſome of the ſhips' company during

during the paſſage to Louiſburg. We have no doubt of the fact. But we by no means admit this as a proof of the contagious nature of the diſeaſe. It is very common for fevers to become *infectious*, when a number of ſick are crowded together in confined apartments; and on ſhip-board they are particularly liable to become ſo, from the impoſſibility of ventilation in ſome inſtances, and the neglect of it in others. Here, too, it often happens, that, for want of room, the well are compelled to lie with, or near the ſick, and to breathe an air rendered extremely noxious from the abſtraction of that part which is eſſential to animal vigour, and from a combination of the different effluvia ariſing from the ſick, the dying, and perhaps the dead. Hence a cauſe appears why ſhip-fevers are often communicated with ſo much facility, and are a cauſe of ſo great a mortality.

But in the caſe now more immediately under conſideration, the extenſion of the

fever,

fever, beyond thoſe who came on board in a debilitated ſtate, did not take place in many inſtances; and the reaſon is evident: —The weather, during the paſſage from Breſt to Louiſburg, was ſo mild, that the port-holes (the windows of a ſhip they might be called) and hatch-ways were permitted to be generally open, by which means a circulation of air was kept up between decks, and thus the cauſes of infection were, in a great meaſure, carried away. The fine weather, alſo, allowing the men to be chiefly on deck, was another reaſon why the crews were not more ſickly.

The narrative does not mention the ſtate, nor the number of the ſick during the months of July and Auguſt. It ſays, "On a perdit quelqu'un."

If this fever had been contagious, ought it not to have ſpread more generally during the ſummer months? "Il repandit tres peu." I preſume that a contagious diſeaſe among ſo many people would have been ſo

generally experienced, that a particular account of it would have been kept, and reported in the general ſtatement.

To promote the object of the expedition, it was thought neceſſary, ſome time in September, to collect all the men of the fleet, and throw up works, in order to defend the town. The exertions that were made on this occaſion greatly augmented the number of the ſick; and this effect was attributed to the contagious nature of the diſeaſe. But I apprehend the cauſe to have been *over-fatigue*, and of that ſort to which the men had not been accuſtomed: to which we may add, expoſure to inclement weather, and a ſcarcity of proviſions, and thoſe of a bad quality.

On the 25th of September, a ſevere gale of wind happened. This neceſſarily occaſioned a great degree of expoſure, and much fatigue. From theſe cauſes the ſick became more numerous; and the number increaſed till the period of their departure from

from Louiſburg, which was on the 30th of October, when fourteen hundred were upon the liſt. Of theſe it was thought that four hundred of the moſt deſperate and hopeleſs caſes ſhould remain at Louiſburg.

The fleet had not been at ſea more than ſix days before moſt of thoſe who were ill at the time of ſailing, with many others, were dead; and by the time that the fleet arrived at Breſt, which was on the 22d of November, four thouſand ſailors were confined with fever.

If we conſider the circumſtances of the paſſage, viz. the ſtate of the men taken on board the fleet; the condition of them afterwards, owing to boiſterous weather, which rendered cloſe confinement neceſſary, and a proper ventilation impracticable, we need not be ſurpriſed that the fever ſhould have prevailed ſo generally, nor that the mortality ſhould have been ſo conſiderable. The air between decks, in a ſtagnant

ſtate,

ſtate, and in which ſo many ſick were crouded together, could not fail of becoming infectious: and the heat, as well as the moiſture, which muſt neceſſarily exiſt in ſuch ſituations, would give a particular activity and virulence to the infection. And in this way we may account for the propagation and fatal tendency of the diſeaſe, without ſuppoſing it to have had any thing in its nature ſpecifically contagious.

After the arrival of the fleet at Breſt, the men were placed under circumſtances as little favourable to their recovery, as they were before their debarkation. They were ſent to hoſpitals, too ſmall to contain them, ſave in a ſtate extremely crouded; and there were not attendants in ſufficient number to take proper care of the ſick, and to preſerve cleanlineſs.

In this ſituation, ſo confined was the air, and ſo impregnated with the foul vapours, ariſing from the ſick, that, on entering the hoſpital,

hoſpital, it is obſerved, a perſon found himſelf ſurrounded by an air ſo extremely warm, and poſſeſſing a cadaverous odour, ſo diſagreeable to breathe, that one who had not been accuſtomed to it, could not remain expoſed to its operation but for a few minutes, without feeling a pain in the head.

When, from the great numbers who died, the hoſpital became ſo thinned, and the ſick ſo few, that they received all the advantages of pure air, good attendance, a due obſervance of cleanlineſs, proper medicines, &c. the progreſs of the diſeaſe was ſoon arreſted, and in a ſhort time it finally diſappeared.

Now, when the preceding hiſtory is well conſidered, together with the concluſions drawn from the facts therein ſtated, it will appear, that the fever of De la Motte's fleet ought to be arranged under the head of *infectious* diſeaſes, and not that of a contagious one.

But

But if it ſhould ſtill be urged, that there was contagion in the caſe, and at the ſame time we admit, (which *facts* compel us to grant) that a free air, and other circumſtances, will ſtop the progreſs of a contagious diſeaſe, nay, deſtroy its contagious property, the conceſſion is all we wiſh to obtain, in order to eſtabliſh our doctrine of the nature of *infectious fevers*.

As a corroborating fact to our opinion, it will be proper to remark the aſtoniſhing recovery of three hundred and eighty, out of the four hundred worſt caſes, that were left at Louiſburg. The hiſtory of contagious diſorders no where, I believe, furniſhes any thing like a parallel example of ſo large a proportion of ſick getting well.*

We

* 'When a malignant fever, in the late war, was brought from England into the hospital at Mahon, the house being insufficient for the reception of so great a number of patients, tents were erected in the fields for many of the men. These poor men were thought to be hardly accommodated: but it was observed, that most of those who lay in tents recovered; when the mortality in the house was so great, that, in some wards, not one in three escaped,' &c. &c.

Lind on Scamon.

We find upon record, numberleſs examples of people having received infection of the moſt ſerious nature, from going out of the healthy air of the common atmoſphere, into confined places; ſuch as dungeons, crouded priſons, or between the decks of veſſels, where fevers have prevailed. But there is not an inſtance within my recollection or obſervation, where a perſon, having imbibed ſuch infection, and where cleanlineſs, keeping the room well aired, and other proper attentions have been obſerved, has communicated the diſeaſe, either to occaſional viſitors, nurſes, friends, or relatives: and the particulars of Doctor Treat's caſe will furniſh another analogous fact.

He went on board the Zephyr, and, as his duty required, deſcended into the hold, or between decks, to aſcertain the ſtate of the veſſel, as it regarded infection. In doing this, we will ſuppoſe that he expoſed himſelf to foul and ſtagnant air, rendered

particularly

particularly noxious by the exhalations which paſſed off before and immediately after the boy's death.

A day or two afterwards he began to complain. Where he reſided, there was a family about him. His ſiſter, particularly during his illneſs, was a conſtant attendant at his bed-ſide. His numerous friends were preſſing around him to his laſt moments. Several of them aſſiſted in the execution of the means preſcribed for his relief, when they had direct contact with his body, and were more immediately expoſed to whatever aroſe from it:—Yet the fever was in no inſtance communicated to a ſecond perſon.

If, then, the Doctor's diſeaſe had been *ſpecifically* contagious, ought we not to have expected an unequivocal manifeſtation of it, in ſome of thoſe who were placed under circumſtances ſo favourable for receiving contagion?

Many

Many people were confirmed in the opinion, that the fever was contagious, from the vague reports of examples having occurred, where perſons were infected with fever in the country, in conſequence of having had a communication with thoſe who had carried the diſeaſe from the city. Now, I believe, there are not any well authenticated caſes of this ſort: and if a few ſolitary inſtances are offered in ſupport of the contagious nature of the diſeaſe, which, however, are very obſcure, they prove very little when compared with the uniform confinement of the diſorder to thoſe who were immediately expoſed to the firſt cauſes which produced the complaint.

We have already admitted that the air of a room in which a perſon is lying with a bilious remitting fever, may become infectious, if ventilation is not performed, if all excrementitious matter is not ſpeedily removed, and if the bedding and clothing of the patient are not in due time changed.

And if the fever has ariſen in the country, in the manner the reports above ſtated expreſs, I preſume infection has been the cauſe, and not contagion; for all that has hitherto been alledged is, that one or two inſtances have happened, where people have taken the diſeaſe, from the many of thoſe who have ſickened in the country after leaving the city; not that the diſeaſe has ſpread through a neighbourhood or a village.

I preſume it is ſufficiently proved by this time, that the late epidemic fever was not brought here from abroad; and, alſo, that there exiſts in nature, and that there ought to be made, a diſtinction between *infectious* and *contagious* diſorders. Much more might be ſaid upon theſe ſubjects, and a variety of teſtimony added; but, without fatiguing the reader, by entering into a farther diſcuſſion of theſe queſtions, I ſhall proceed to enquire into thoſe cauſes which may,

with

with great probability, be conſidered as productive of the late epidemic.

During the months of January and February, 1795, the weather was unuſually variable; the loweſt degree to which the thermometer fell was five degrees of Farenheit's ſcale, and it roſe as high as forty-ſix degrees.

The weather of the ſucceeding ſpring, during the months of March and April, was alſo very variable, and was attended with a greater degree of cold and wet than common. This was remarkably evidenced by their effects upon vegetation. Trees put forth their buds, and bloſſomed later, than is uſual in ordinary ſeaſons.

As the ſeaſon advanced, the weather became warmer; but the moiſture of the air was in no degree diminiſhed. This ſtate of the atmoſphere continued during the ſummer months. The acceſſion of heat was ſlow, but by the latter end of July it became exceſſive, and continued ſo

generally

generally during Auguſt and the firſt part of September. The effects of this hot and moiſt air was remarkable in the production of mould.

It was a very common complaint, that hardly any thing could be kept without becoming mouldy. Books, which had remained for years in libraries and other places, became covered with this ſubſtance. Shoes and boots, thrown aſide only a day or two, contracted an abundance of mould; and the wooden floors, and papered walls of family rooms which were cloſed a few days only, and even in ſome inſtances where the rooms were daily expoſed to a free acceſs of air, which before had always remained perfectly dry, now generated a great quantity of mould.

The prevailing conſtitution of the air produced remarkable effects upon cabbages. It was obſerved, that this vegetable grew with uncommon rapidity to its uſual ſize, and with the appearance of great

great health and vigour; it would then ſuddenly aſſume an unhealthy aſpect, which, on examination, was found to depend upon ſome diſeaſe at the juncture of the head with the trunk; and this, on many occaſions, proceeded ſo far as to cauſe a complete ſeparation, and the head would fall to the ground. It was alſo a common obſervation, that the cabbages which were brought to market, were found damaged about the center: and, further, that ſome ſpecies of cabbages would not form into a head as uſual.

The effects of a peculiar ſeaſon were ſhewn alſo upon different kinds of fruit. It was remarked that cherries did not come to that perfection in which we commonly have them, and that they very ſoon ſhewed a diſpoſition to decay. Early in the ſeaſon the apple-trees were very generally extremely productive, and promiſed a large ſupply of their fruit in the autumn; but the expectations of the huſbandman on this

head

head were greatly diſappointed: the apples began to fall at leaſt a month before the uſual time, and in a very imperfect ſtate; and thoſe which came to maturity could not be kept ſo long as it is common for them to be preſerved.

In a letter from John Kemp, Eſq; profeſſor of natural and experimental philoſophy, &c. &c. in Columbia college, dated April 12th, 1796, it is ſtated, "that in his obſervations upon the ſtate of the atmoſphere during the laſt ſummer, the mercury in the thermometer was, on an average, three degrees of Farenheit's ſcale higher than it has been, at the ſame ſeaſon, during the ten preceding years; that the moiſture, as indicated by the beſt hygrometers, was much greater than uſual; that the quantity of active electricity was ſo ſmall, as to be frequently imperceptible by very ſenſible electrometers, connected with an exploring rod; that the quantity of rain was much greater than uſual, and thunder ſtorms leſs frequent;

frequent; and that, for the moſt part, the wind was between ſouth-eaſt and north-eaſt."

The firſt being eſtabliſhed, that the ſtate of the air, during the winter of 1794—5, and particularly during the ſucceeding ſpring and ſummer, has differed very materially from its uſual temperature and diſpoſition, can there be any good reaſon aſſigned why the diſeaſes to which our climate is liable in a greater or leſs degree, every ſeaſon, ſhould not receive a *particular character*, or be variouſly modified by a peculiarity of weather? The influence of climate upon the human conſtitution has been remarked in all ages; and not a year paſſes that we do not hear of particular diſeaſes, being attended with ſome uncommon appearances, ariſing from peculiarity of ſeaſon.

At a meeting of the Medical Society of the State of New-York, held on the ſecond Tueſday in July, it was remarked by one

of

of the members, that he had ſeen ſeveral caſes of angina trachealis, which were attended with anomalous ſymptoms, and alſo a few caſes of dyſentery in adults, which proved obſtinate: and as theſe diſeaſes were not unſual at that ſeaſon of the year, he concluded that they would become epidemic, or be found the forerunner of one. He was led to this opinion from the hiſtory of epidemics; diſeaſes of that kind being almoſt always anticipated by ſome particular previous diſorder: and he further remarked, that there was ſomething in the ſtate of the air which prediſpoſed to complaints.

At the ſame time it was obſerved by another member, that he had alſo ſeen ſeveral caſes of angina trachealis, and he found the diſeaſe attended with leſs danger of ſuffocation than uſual. Bleeding ſerved rather as a check to the ſymptoms than to afford that manifeſt advantage which is its effect on common occaſions. The diſeaſe yielded

yielded to emetics, warm bathing, moderate bleeding, and liberal bowels.

It was further remarked, that febrile complaints had occurred more frequently than uſual at that ſeaſon, and eſpecially among children; and that in the uſe of antimonials, the evacuations were extremely bilious in their appearance. From what had been obſerved, therefore, there would remain little doubt that there was ſome circumſtance in the ſeaſon, which prediſpoſed to complaint, and on many occaſions attended with a ſuperabundance of bile.

Several members of the ſociety had met with inſtances of cholera, and alſo with obſtinate conſtipation of the bowels. It was alſo noticed, that the diarrhœa and dyſentery, to which children are ſo liable here in the ſummer ſeaſon, and which is ſometimes a cauſe of great mortality among them, were very rare diſeaſes.

The Medical Society came to a reſolution to be particular in noticing the diſeaſes

which might take place in the interval between the then preſent meeting and their next monthly meeting. But the report of a *contagious yellow fever*, which began to prevail in the city about the 25th of July, was a cauſe of ſo much hurry and haſty declaration of opinions, that a compariſon of notes, and a friendly diſcuſſion of a queſtion of ſo much importance, at the time appointed, was entirely ſuperſeded. But, however widely individuals differed in ſentiment on this intereſting occaſion, it is but juſtice to mention, that no exertions were wanting, on either ſide of the queſtion, to leſſen the calamity with which our city was threatened.

If we carefully peruſe the hiſtory of diſeaſes, we ſhall find, that thoſe which have proved moſt fatal to the human race, have proceeded, either directly or indirectly, from ſome acknowledged peculiarities of the ſtate of the air.

Of

Of this truth, every author, who has written on epidemic diſeaſes, bears abundant teſtimony: and notwithſtanding that ſome countries are more expoſed to changes than others, few have been found altogether exempted. Nor can it be expected, from the nature of things, that the people of North-America, who inhabit a climate which may be ſaid to participate of all the climates in the world, ſhould not, in their turn, experience the operation of ſimilar cauſes.

In order the better to underſtand why the fever aroſe in a particular part of the city, and was more prevalent, as well as malignant, in that part, it will be neceſſary to take a general view of the ſituation of New-York, and the diſpoſition of the ground.

New-York is ſituated in north latitude forty degrees and an half, longitude ſeventy-four degrees weſt from the meridian of London. It is built on a ſouth-weſt point

of

of land, the higheſt elevation of which, above the level of high water mark, is near forty feet, and which is continued, through the city, near a mile lengthways. From this elevation in the original ſtate of the ground, there was a pretty bold deſcent continued, in oppoſite ways, to the water's edge. But it has been the policy of the corporation of this city, at different times, to make *new ground*, as it is called, or to ſell to others the privilege of doing ſo; which has conſiderably increaſed the dimenſions of the city, both on the eaſt ſide, and on the north.

The new made ground is nearly a level, or the deſcent is ſo gradual, that it is drained with difficulty; and we may add, that the level of the new made ground is but very little above the mark of high water. Indeed, it is ſometimes entirely overflowed by the ſpring tides; and from the looſe nature of the ground, the water frequently finds its way into the cellars of the houſes

in

in Front and Water ſtreets, and ſometimes even into thoſe of Pearl-ſtreet.

The new made ground from Whitehall to Catharine-ſtreet, along the Eaſt-river, is, on an average, four hundred feet in breadth, creating, if one may ſo ſpeak, fifty acres of ground, all of which is built upon. The ground made on the weſt ſide of the city is about ten acres. The conſequences of this mode of extending the city are, no doubt, extremely injurious to the health of the inhabitants; and it is much to be regretted, that meaſures are not taken to prevent an increaſe of the evil: for we ſhall preſently ſee, that the late epidemic was rendered particularly malignant and fatal, from cauſes ariſing in this plan of inlarging the city. To render this apparent, we muſt take a more particular ſurvey of that part of the city where the epidemic firſt made its appearance.

We ſhall begin at the river on the eaſt ſide of Peck-ſlip: from thence to Water-

ſtreet

ſtreet the ground is nearly a level: proceed up the ſlip, and after leaving Water-ſtreet a few paces, the ground aſcends until you arrive at Pearl (late Queen) ſtreet: from this to Dover-ſtreet the ground is riſing, but gradually deſcends again as you proceed along Cherry-ſtreet as far as Rooſevelt-ſtreet: from this to the New-ſlip it is nearly a level. The ground at the top of Dover-ſtreet may be conſidered as the higheſt ſpot in the range between Peck and the New-ſlip, by the way of Pearl and Cherry ſtreets, and extending eaſt and weſt, maintains a general height, which may be computed at fifteen, twelve, ten, &c. feet above the level of Water-ſtreet.

The houſes on the high grounds are principally three ſtories high, and built of brick, between which and thoſe lowly ſituated on the north ſide of Water-ſtreet, there is a ſpace of ground conſtituting the different yards of the above houſes, meaſuring about one hundred feet.

Water-

Water-ſtreet, extending from Peck to New-ſlip, in many places has been raiſed two feet, or more, above the ordinary level of the ground on the north ſide of the ſtreet. From thoſe grounds to the river there are no drains to convey off the water, &c. which renders an accumulation of filth, in the rear of the houſes upon thoſe lots, almoſt a neceſſary conſequence. Water will frequently become ſtagnant, and this containing animal and vegetable matters, expoſed to a hot ſun, muſt prove a fruitful ſource of noxious vapours. Under theſe circumſtances, it is natural to expect that thoſe who are expoſed to the influence of ſuch foul air, ſhould feel its effects, eſpecially in a ſtate of prediſpoſition, ariſing from a peculiar conſtitution of the air.

The grounds on the ſouth of Cherry-ſtreet are ſo arranged, that they are more immediately expoſed to the ſun; for they may be conſidered as on the ſouth ſide of a conſiderable hill; and no one is ignorant

of

of the powerful effects which the ſun produces on a ſurface of this expoſure.

In a very correct map of this city, by Benjamin Taylor, it will appear, that a line drawn from Whitehall to the bottom of Dover-ſtreet, will run in the direction of north-eaſt; and from the bottom of Dover-ſtreet to Corle's-hook, the courſe is nearly eaſt. An attention to this fact, alſo, is of conſequence, if it produces the effect upon the tides it is ſaid to do, viz. that of creating different eddies, which furniſh a vaſt quantity of floating, periſhable matter, to the ſlips in the vicinity of the ground which we have been deſcribing.

From this arrangement of the ſhores along the Eaſt-river, the ſalutary effects of thoſe winds which blow during the hot months, from the different points of the compaſs, between ſouth-weſt and north-eaſt, and which ſo often afford refreſhment to the inhabitants of the elevated ſituations, and at the weſt end of the town, are little

or not at all experienced by thoſe who reſide at the eaſt end: for the air is ſo changed in its temperature and qualities, before it arrives there, by paſſing over a large part of the city, that it loſes that vivifying principle ſo eſſential to health.

From all theſe circumſtances it is plainly diſcoverable, that the ſouth-eaſt part of the city is placed under circumſtances not very conducive to the health of its inhabitants; eſpecially as a great number of them are of the poorer kind, and in many places very much crouded together in ſmall confined apartments. To ſtrengthen this opinion, I will give an extract of a letter from a gentleman of great candour and reſpectability in the neighbourhood of Dover-ſtreet:—"Although the docks in the vici-
"nity of the ſtore which I occupy may be
"leſs offenſive than in many other parts
"of the city, yet many of them are in a
"very exceptionable ſituation. The pond-
"ing of water, by running a bulk-head

" acroſs an unfiniſhed dock, and leaving " the vacancy, for ſeveral years, to be " filled with every ſpecies of filth and pe- " riſhable matter, is an object worthy the " attention of the police. The ſituation " of the grounds between Water and " Cherry ſtreets is rendered very noxious, " by Water-ſtreet being raiſed above a " certain level, and thus preventing thoſe " grounds from being drained. The effect " of ſuch a nuiſance on the health of the " inhabitants of a crouded part of the city " cannot be imaginary."

It is not to be underſtood, that the latitude of a place is always to determine its temperature; nor is it uniform in giving a ſimilar character to the diſeaſes moſt prevalent under a ſimilar parallel. Local circumſtances will have a much more powerful operation, and, in general, are found to produce the characteriſtic diſtinctions which exiſt between the prevalent diſeaſes of

of countries upon or near the ſame line of latitude.

The country bordering upon the ſea-coaſt, from the Province of Main to the Neverſink, or Highlands of Shrewſbury, is rough and irregular, and almoſt every where covered with hardy oaks and hickories; and the ſoil is generally as irregular as the face of the country. Moſt of the different capitals, on the coaſt, are ſituated upon eminences, or high ground, and ſo near the ſea, that the rapid currents which waſh their harbours, may be conſidered almoſt as pure as the ſea itſelf; and this is particularly the caſe with the harbour of New-York.

The nearneſs of New-York to the ſea, the ready acceſs which the tides have to its harbour, and the elevation and boldneſs of the ſhores, muſt doubtleſs be a great ſecurity to the health of the inhabitants. I believe it may be ſaid, with great truth, that few cities enjoy ſo many natural advantages,

vantages, ariſing from ſituation, as New-York; and I make no doubt, that a vigilant and determined police would render it as healthy a city as any under the ſun.

The country, on the ſea-coaſt, for many hundred miles to the weſt and ſouth of the Highlands of Neverſink, is low, with very few elevations, and thoſe not conſiderable. The principal cities are moſtly ſituated at a diſtance from the ſea, and on the margin of ſome river, the navigable waters of which are a mixture of freſh and ſalt water; and the freſhets which take place in thoſe rivers, at particular ſeaſons of the year, often overflow their banks, and have, no doubt, a conſiderable agency in producing the epidemic diſeaſes which ſo often prevail in thoſe climates, of which Doctor Jackſon has given a very particular and intereſting deſcription. "We learn from "experience (ſays the Doctor) that fe-"vers are little known in rough and hilly "countries, where waters flow with a rapid "courſe;

" courſe: while we alſo know, that they " are common in low and champaign " countries, where water ſtagnates, or has " only a ſluggiſh motion. Independent of " which, thoſe ſituations which are in the " neighbourhood of large ſwamps, or near " the oozy banks of large rivers, have " always been obſerved to be particularly " liable to ſuch diſeaſes."

Winterbotham, on the climate of North-Carolina, remarks, that " in the flat country, near the ſea-coaſt, the inhabitants, during the ſummer and autumn, are ſubject to intermitting fevers, which often prove fatal, as bilious or nervous ſymptoms prevail. Theſe fevers are ſeldom immediately dangerous to the natives who are temperate, or to ſtrangers who are prudent. They, however, if ſuffered to continue any length of time, bring on other diſorders, which greatly impair the natural vigour of the mind, debilitate the conſtitution, and terminate in death. The countenances of the inhabitants,

inhabitants, during theſe ſeaſons, have generally a pale yellowiſh caſt, occaſioned by the prevalence of bilious ſymptoms. They have very little of the bloom and freſhneſs of the people in the northern ſtates."

The plague, which often rages in Egypt, appears, upon good authority, to be occaſioned by ſimilar cauſes. " En Egypte ou' " la peſte eſt trois, ou quatre mois l'année, " a, cauſe des diſbordmens du Nil. Leur " mauvais effet, ſe fait ſurtout ſentir, " quand un vent chaud & humide, ſouffle, " ou bein quand el eſt mêlé avec des " vapeurs corrompues." The effect of low ſituations, attended with moiſture, in producing fever, is well illuſtrated in the following detail:—" In the year 1748, upon the breaking up of the Britiſh camp in Flanders, the cavalry were cantoned upon the unhealthy ground, about Bois le Duc, and were ſoon after attacked with a general ſickneſs, occaſioned by a late inundation of that part of the country. Doctor Horne,

Horne, then ſurgeon to Cope's dragoons, obſerves (Diſſertat. Medica. Inaug. de Febre Remittente) that the troops ſuffered in proportion to their proximity to the marſhes; and that, univerſally, the nearer to Bois le Duc, the more violent was the diſtemper; the number of ſick, by very accurate obſervations, being found exactly to correſpond with the dampneſs of their ſituations and of the air.

To put the matter beyond all doubt, this ingenious gentleman provided himſelf with a good *hydroſcope*, by which he carefully meaſured, every day, the degree of moiſture and dryneſs of the air.

Upon comparing his tables with the regiſter he kept of the ſick, he found that the progreſs of the diſeaſe kept an exact pace with the humidity of the air.

On the 29th of June they left the camp, and from that day to the 12th of July, the air being dry, not one ſoldier was affected with an ailment.

On

On the evening of the 20th, the *hygrometer* indicated a great degree of moiſture in the air; and that very night the epidemic ſickneſs (viz. the remittent fever) began among the troops, three dragoons of Cope's regiment being ſeized with it.

During eight days afterwards the air continued extremely moiſt, and the number of the ſick was proportionably increaſed. The ten following days being dryer, the number of the infected viſibly diminiſhed: but two very moiſt days ſucceeding, the patients were again greatly increaſed.

In a word, the ſame quality of the air which differently affected the inſtrument, did alſo, every day, in like manner, affect the health of the men.

Sir John Pringle, on the diſeaſes of the army, has alſo the following obſervations. Speaking of the diſeaſes of the low and marſhy parts of the Netherlands, which are conſiderably to the northward of our ſituation; "It is to be remarked, (ſays he) that

that the ſickneſs never begins till the heats have continued ſo long as to give time for putrefaction, and evaporation of the water; the commencement, therefore, of the epidemics, may be dated from ſome time in July, or the beginning of Auguſt, under the canicular heats; their ſenſible decline about the falling of the leaf; and end when the froſt begins."

Speaking of the garriſon of Ghent, he obſerves,—" The battalion of the guards was a remarkable inſtance of the difference of quarters: two of its companies were ſtationed on St. Peter's hill; the remaining eight in the lower part of the town, in rooms ſo very damp, that the men could hardly keep their ſhoes and belts from moulding. In the month of July, the ſick of this one battalion amounted to about one hundred and forty; of which number only two men belonged to the companies on the hill, and all the reſt to thoſe in the lower town. But in the middle of Auguſt,

upon changing the barracks, the ſickneſs ſuddenly abated."

Can any thing ſhew more ſatisfactorily, than this ſhort deſcription of Sir John Pringle, the unfailing influence of ſituations in determining the extent of diſeaſes under particular conſtitutions of the atmoſphere? And might not any one ſuppoſe, that Doctor Horne's hydroſcopical obſervations were made in New-York, during the prevalence of the late epidemic? For my part, I cannot refrain from comparing Broadway, and the higher ſituations of New-York, to St. Peter's hill; and the upper end of Water-ſtreet, to the lower part of the city of Ghent.

It is a fact, then, well eſtabliſhed, that while an epidemic has raged among the inhabitants of flat and low ſituations, thoſe who have lived on high grounds, in the neighbourhood, have not, in the ſmalleſt degree, felt its influence: but they need only deſcend to the low ground, and they will

will there ſicken in common with the inhabitants.

If the preceding circumſtances are conſidered, they afford a ſufficient explanation why the effects of the late epidemic were ſo partially felt by the inhabitants of this city.

It will be proper to remark here, that the epidemic of laſt year is not a new diſeaſe. It is eſtabliſhed upon reſpectable authority, that a diſorder, in every reſpect ſimilar to the one which made its appearance in this city in July laſt, and in one inſtance attended with the ſymptom of black vomiting, occurred in Water-ſtreet, in the neighbourhood of Dover-ſtreet, four or five years ago, and more or leſs every year ſince; and was particularly confined to that part of the city: but being unaided by a particular ſtate of the air, and under the influence, perhaps, of exciting cauſes of a leſs active nature, it was neither ſo generally felt, nor ſo fatal in its operation.

Agreeably to this opinion is the declaration

tion contained in a letter we before have had occaſion to quote; the author of which obſerves,—" I am convinced that the diſ-" order has originated from local cauſes, " becauſe it has appeared in this quarter " of the city, at the ſame ſeaſon, for ſeveral " years paſt."

Nor has this diſeaſe been confined to New-York. It is a fact beyond controverſy, that during the warmer parts of the year 1795, a fever, in all eſſential circumſtances reſembling the epidemic of this place, appeared in many places in this ſtate and in the ſtate of Connecticut. The ſame cauſes, we ſhould naturally expect, would produce ſimilar effects. Accordingly, we have it upon the evidence of ſeveral very reſpectable characters, that a peculiar conſtitution of the air, the ſenſible qualities of which were *exceſſive heat and moiſture*, was generally prevalent. This ſtate of the atmoſphere, operating with the exhalations ariſing from the decompoſition of dead animal

animal and vegetable matters, in low and damp ſituations, were a frequent cauſe of bilious remitting fever.

In confirmation of this truth, we are fortunate in being enabled to preſent our readers with the following intereſting communication from Doctor Williams.

'*Philadelphia*, 19*th Dec.* 1795.

'SIR,

'As near as I can recollect, there are at 'Whitehall, formerly called Skeenſbo- 'rough, about two hundred and eighty fa- 'milies; out of which, and tranſient per- 'ſons, there died, from the firſt of July to 'the laſt of October, about twenty of a 'bilious fever.

'In the town of Hampton, which lies 'ſouth-eaſt, and adjoining Whitehall, 'containing about one hundred families, 'five died of bilious fever. In Weſtfield 'and Greenfield about twenty-four died, 'two thirds of a bilious fever.

'That

'That part of the town of Whitehall 'where the deaths in general happened, 'is by the ſide of Wood-Creek, where 'there are low marſhy grounds and dead 'waters. New comers to this place are 'commonly attacked with bilious or inter-'mittent fevers. But the laſt year, by 'reaſon of continued hot and dry weather 'ſucceeding an uncommon wet ſpring, 'ſome of the old ſettlers were likewiſe 'attacked with theſe complaints.

'It was obſerved that the lowneſs of the 'waters had expoſed, more than common, 'dead vegetable matter to the action of 'the ſun; and thus the exhalations did not 'conſiſt of watery vapours only, but of a 'putrid effluvia, ariſing from the decom-'poſition of dead vegetable matter, and 'innumerable inſects, which are always 'found in ſuch ſituations.

'About the year 1788, at the town of 'Hebern, ſouth and adjoining Grenville, 'a mill was erected on a dead creek. The

'waters

'waters in conſequence ſpread over the 'flat grounds for near three miles in length. 'This cauſed, in the hot ſeaſons, a fourth 'of the inhabitants adjoining this water, 'to be attacked with bilious fever.

'About ſix years ſince, in the town of 'Argyle, an obſtruction of water was 'cauſed as above, ſo that three hundred 'acres of land were overflowed. This oc-'caſioned, the firſt year, ſlight bilious and 'intermitting fevers. The ſecond year, 'when part of the land before covered with 'water became dry, and was expoſed to the 'ſun, the complaints became putrid in their 'tendency, and numbers died. The ob-'ſtruction, the following winter, was re-'moved, and the place again became heal-'thy, and ſo remains.

'It is to be remarked, that the laſt ſum-'mer produced more ſickneſs than was ever 'known in that country, except in the 'year 1788; when, at the latter part of 'July, there happened a great flood, which

'was

'was followed by a great drought. The 'heat of laſt ſummer was acknowledged 'by all to have been much greater than in 'former ſeaſons. The water of Saratoga 'lake, in Saratoga county, was very low, 'and the colour exceeding green.

'From Lanſingburgh, northerly, along 'the banks of the river Hudſon, the in-'habitants were generally attacked with 'bilious fever; moſt of which, without 'timely care, became putrid. At Schoch-'ticook, a town about a mile to the eaſt of 'Hudſon river, and upon the banks of Ho-'ſack river, heretofore healthy, the inha-'bitants were generally attacked with bi-'lious fever, and ſome died.

'Although I have attended numbers, 'and frequently remained days and nights 'with the ſick, I never felt any bad effects 'from it. But I have obſerved, that, if the 'nurſes came from ſituations not ſo much 'expoſed to bilious complaints, it was not 'uncommon for them to be taken ſick.

'I am, &c. &c.'

The

The exiſtence of a bilious remittent fever, reſembling the late epidemic of this place, at a diſtance from the city, is further confirmed by the teſtimony of a gentleman, of high eſtimation, and extenſive practice in his profeſſion, in the city of Hartford, in the ſtate of Connecticut, who writes, in a letter to Doctor Wright Poſt, dated January 12th, 1796, as follows:—

'This epidemic (the dyſentery) was by 'no means a partial one; it ſpread over the 'whole city, and continued until about 'the beginning of October, when it gave 'way to the introduction of the bilious re-'mittent, which has, as yet, ſcarcely left 'us, though for a month or ſix weeks paſt, 'the caſes have been few and trifling. 'This, although not ſo prevalent as the 'dyſentery, ſpread over particular parts of 'the town, and many of the caſes were 'obſtinate and lengthy.

'The weather, eſpecially in Auguſt and 'September, while the dyſentery prevailed,

'was very ſingular, ſuch as is without a 'ſimilar inſtance in the recollection of the 'oldeſt perſons; I mean particularly as it 'reſpected the *deluging rains*, which fell ſo 'frequently in the courſe of theſe two 'months. Every two or three days, a 'fall of rain, which generally laſted about 'ſix hours, would deluge the whole coun-'try; inſomuch that moſt of the vegeta-'bles, plants, graſs, &c. in the vallies, 'where vegetation was much the moſt 'rapid, were killed and ſwept away, or re-'mained among ſtagnant waters. In many 'places the air became highly offenſive, 'and wholly unfit for reſpiration. Theſe 'heavy rains were ſucceeded, almoſt 'without an exception, by uncommonly 'hot ſuns; hence the whole atmoſphere 'was impregnated with exhalations, from 'putrid vegetables, and more eſpecially in 'the neighbourhood of rivers and vallies.

'The effect of local ſituation was par-'ticularly obſervable in this place; I mean

'as

'as it reſpects the bilious remittent. 'Between our front ſtreet and the river, a 'diſtance of about forty rods, the ground 'is much lower than on each ſide. This 'extends about half a mile in length, with 'ſeveral interruptions, by ſtreets being 'built acroſs it. It was about this place, 'and on the banks of a little river which 'runs through a part of the town, that this 'diſeaſe was moſtly confined; *and this I 'find was generally the caſe in the moſt 'ſickly parts of the ſtate.*

'I will relate to you the ſituation of one 'family, which was the moſt remarkable 'of the whole. Some time in the month 'of September, I was called to viſit a young 'man, about eighteen years old, in a fami-'ly in the ſkirts of this town. He was 'violently attacked with moſt of the cha-'racteriſtic ſymptoms of the yellow fever, 'as deſcribed by Ruſh. The next day a 'ſecond was taken in the ſame manner; 'and on the morning of the third day,

'three

'three more were taken ſick. This led
'me to ſuſpect ſome particular cauſe. I
'ſearched for it in vain at that time. The
'next morning, on paſſing through the
'kitchen, I ſmelt ſomething that was very
'offenſive, which none of the family had
'noticed. On opening the cellar-door, I
'found that it proceeded from the cellar.
'Two perſons went down to examine,
'and found in one corner of a ſmall tight
'room, a quantity of June cabbages, on
'which the ſun had ſhone about three
'hours in the day. They had rotted, and
'ſunk down into a lump of putrefaction.
'They run a ſtick under them, and lifted
'them up, and there immediately iſſued
'ſuch an intolerable ſtench, as obliged
'them inſtantly to leave the cellar. A
'vomiting was brought on at once, which
'laſted them nearly an hour. Notwith-
'ſtanding that the doors and windows of
'the cellar were thrown open, it was two
'days before they could clear it out. No

'other

'other perſon in the family was taken 'afterwards, and thoſe who were already 'ſeized, all recovered.

'Here was the ſame diſeaſe, excited by 'the ſame cauſe which produces it elſe-'where, and that cauſe detected. Why 'may we not ſuppoſe, that if this circum-'ſtance had taken place in a thickly inha-'bited neighbourhood, prepared by prediſ-'poſition, and aided by all thoſe cauſes 'which generally exiſt during the hot ſea-'ſon, in populous places, that it would 'have ſpread with the ſame rapidity it 'did in New-York or in Philadelphia? I 'confeſs the conjecture appears to me a 'rational one, and ought, at leaſt, to ex-'cite our attention.'

We cannot forbear to remark on the facts contained in the above letters, how analogous the circumſtances were, under which the bilious fever aroſe in different parts of the country: and by comparing theſe facts, more eſpecially as they relate

to

to the city of Hartford, with what happened in this place, we ſee a very ſtrong analogy indeed. Now, were it neceſſary to inlarge any further upon the ſubject of imported contagion, we might, with great propriety, adduce the exiſtence and prevalence of a fever at Hartford, and eſpecially in the family ſo particularly mentioned, the ſame as our late epidemic, which no one ever entertained a ſuſpicion to have ariſen from any cauſes than thoſe *perfectly local.*

It would be difficult to aſcertain with accuracy, what proportion the different deſcriptions of people bear to one another, who were attacked with the late epidemic fever. It may be taken for granted, however, upon the teſtimony of thoſe whoſe opportunities beſt enabled them to judge, that the number that were taken ſick, living on the new made ground, particularly at the ſouth ſide of the city, and in other low places, compared with thoſe reſiding

reſiding in more elevated ſituations, may be computed as twenty to one; and if we were to make a calculation of the number of inhabitants who died, compared with viſitors, or tranſient perſons, we might ſay five of the latter to one of the former.

This diſproportion may be accounted for: firſtly; viſitors, eſpecially thoſe from the northward, where the air is generally purer, are more ſuſceptible of an epidemic influence than the inhabitants, who are accuſtomed to the circumſtances of their ſituation: for there cannot remain a doubt, that the human conſtitution acquires, by habit, the power of reſiſting, to a certain degree, the effects of thoſe cauſes which have a tendency to produce diſeaſe.

We find this fact particularly noticed by moſt writers on the bilious or yellow fever, which ſo commonly makes its appearance on board the ſhipping in the different harbours in the Weſt-Indies. It is deſcribed as moſt fatal to thoſe lately from the north-

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ern latitudes. So, in New-York, the firſt appearance of the fever was on board the ſhip William, from Liverpool, the 25th of July, four of whoſe crew died. On the 26th of July the fever appeared in the ſhip Connecticut, from Liverpool: ſhe alſo loſt four of her men. Theſe veſſels, it muſt be remarked, laid at the wharfs in front of that part of Water-ſtreet, where the diſeaſe firſt appeared among the inhabitants. Their men, without doubt, were frequently on ſhore, and having lately arrived, were more ſuſceptible of the cauſes producing the fever, than the reſidents of that ſituation, who had become gradually habituated to its action.

The men of many other veſſels from the northward, which were ſtationed at different wharfs in the eaſt river, felt more or leſs the effects of the epidemic influence: whereas the crews of thoſe veſſels which arrived during the ſummer months from the Weſt-Indies, and other warm

warm latitudes, all remained well; and ſuch individuals among them as had been ſick on their paſſage, recovered very ſoon after their arrival in this harbour.

Secondly; of the viſitors who were ſeized with the epidemic fever, a great proportion were emigrants from England, Ireland and Scotland; and they were more expoſed to its effects from the very crouded and confined ſituations in which they were unavoidably placed.

The miſerable condition of that claſs of unfortunate people, is well ſhown in a candid and very intereſting communication from the Rev. Mr. O'Brien, paſtor to the Catholic congregation in this city, from which the following is an extract:—

'As ſoon as the above cauſes had pro-
'duced their malignant effects in the part of
'the city which was previouſly diſpoſed to
'receive them, I was conſtantly employed,
'inſomuch that I might with ſome truth
'ſay, that I lived in the centre of the diſeaſe;

'and for nearly two months, never laid in
'bed one whole night. I found in moſt pla-
'ces, a total want of every neceſſary of life.
'Numbers of poor ſufferers, confined in
'ſubterraneous apartments, which admit-
'ted no light, but from their hatch-doors;
'ſo that when ſhut down at night, it might
'literally be ſaid of them that they were
'buried alive. In the progreſs of viſiting
'the ſick, I was much diſguſted at the abo-
'minable, uncleanly ſtate of their miſera-
'ble habitations, and a total want of ne-
'ceſſaries: for in moſt places, they had
'not even a ſtool to ſit on, nor a bed to lie
'upon. On inquiry, I found the much
'greater part of them to be emigrants of
'that very ſummer; inſomuch that out
'of four hundred and ſixty-two of my con-
'gregation, who ſunk under the diſorder,
'nineteen twentieths were totally un-
'known to me.'

To this deplorable condition of the poor emigrants who arrived in this city during the

the prevalence of the epidemic fever, is to be aſcribed, humanly ſpeaking, the extent of its mortality. It is a circumſtance, moreover, well known to many, that numbers of them were obliged to remain on board ſhip for ſome time after their arrival in this port, as well from their want of means to procure comfortable lodgings, as from the very crouded ſtate of the city; and at laſt they exchanged their confined holds for thoſe ſubterraneous apartments which have juſt been ſo emphatically deſcribed by Mr. O'Brien. This may account for the fact, that out of nearly eight hundred perſons who died, not more than one hundred and fifty were citizens of New-York; and of this number but a ſmall proportion until the diſeaſe had prevailed a conſiderable time, perhaps one half during the laſt four weeks.

If the above ſtatement be true, what a leſſon does it convey, as well to the people as to the magiſtracy! Ought it not

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to inſpire the citizens with a proper degree of confidence, and ſtimulate thoſe who have the regulation of our city police to adopt ſuch meaſures as are within their authority, in order to obviate, as far as poſſible, the fatal effects of another viſitation?

I ſhall now diſmiſs this part of the ſubject, in order to lay before my readers the ſymptoms which ſerved to characterize the fever in queſtion, as far as they came under my obſervation.

The firſt and the moſt conſtant of theſe, as well as the moſt ſevere, was a pain ordinarily fixed in the fore part of the head; and this was uſually attended with a diffuſed redneſs of the eyes, and a pain in the back. Theſe ſymptoms have been known to exiſt, in a moderate degree, ſeveral days previous to the attack of fever.

A ſenſe of coldneſs did not always take place at the beginning of the fever; and much

much leſs frequently was any thing like rigors experienced. The loſs of ſtrength, alſo, in the beginning, was very variable. Many did not complain of any particular weakneſs; whilſt others felt ſo great a degree of proſtration, as to be unable to ſupport themſelves.

The patients ſometimes complained of a general ſoreneſs of the muſcles, and particularly thoſe of the thighs and legs; and in ſome this affection continued a troubleſome ſymptom.

It did not frequently happen that the ſtomach was much affected at the commencement of the diſeaſe; yet inſtances occurred where the fever was uſhered in with great ſickneſs, frequent retchings to vomit, oppreſſion and pain about the præcordia, with exceſſive anxiety and reſtleſſneſs.

The tongue often at firſt appeared natural, but it moſt commonly looked white. After the fever had continued ſome days, the

the matter collected upon its ſurface, aſſumed a brown colour, but continued moiſt. At length it became dark, ſometimes black, dry, and rough.

The pulſe was generally frequent at the beginning of the fever, but varied, as to fulneſs and ſtrength, according to the habit and conſtitution of the patient. It ſometimes happened, after the fever had made conſiderable progreſs, that the pulſe remitted, and was commonly a ſymptom of great danger. A rare pulſe, alſo, was in ſome inſtances met with. In a boy who had had the fever ſix or ſeven days, and in whom the number of pulſations in a minute had been, for the moſt part, about one hundred and twenty, the frequency was ſuddenly diminiſhed, and did not exceed fifty-five ſtrokes in a minute. In this ſtate they continued, with very little variation, for two days, while the patient appeared to be getting well. The pulſe then ſuddenly became as frequent

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as before, and two days after the acceſſion, he died. It happened alſo in the inſtance of a gentleman, whoſe attack was very violent; whoſe pulſe was frequent, full, and ſtrong, and who had been freely and repeatedly bled; that after eight days, the number of pulſations were reduced below the uſual ſtandard, and ſeemed to be attended with a general change for the better. Theſe appearances, however, were fallacious: a recurrence of violent ſymptoms ſoon put a fatal termination to the diſeaſe. The ſame circumſtance we find taken notice of by Doctor Hunter and others.

Yellowneſs of the ſkin was by no means a conſtant concomitant of the diſeaſe. Sometimes it appeared partially about the face and neck; at other times a little tinge of the eyes was the only yellowneſs to be obſerved. In ſome inſtances it made its appearance about the third day, but more commonly not until the fifth, ſixth, or ſeventh

venth day. When it came on early, it was generally attended with violent ſymptoms, and denoted danger: and yet patients recovered, whoſe ſkin was univerſally as yellow as ſaffron.

The temperature of the ſkin varied very conſiderably. In ſome caſes it was hot and dry, and communicated a very diſagreeable ſenſation to the touch. In others it was moiſt and cool from the firſt attack, and continued ſo during the diſeaſe.

Although the fever frequently ran high, it was ſeldom attended with much thirſt; except in ſome few caſes, where it was difficult to ſatisfy the demands of the ſick for drink.

When the pain in the head was very conſiderable, the eyes were commonly a good deal inflamed, ſuffuſed with tears, and very impatient of light: and it now and then happened, that the patients complained of a ſenſation, as if the eyes were endeavouring to eſcape from the ſockets.

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The reſpiration was ſeldom much affected at the beginning. On ſome occaſions, however, it was difficult, attended with a ſenſe of fulneſs in the cheſt, which was ſometimes a cauſe of great anxiety, and frequent deep ſighing. Doctor Hunter obſerves, that "there is no difficulty in "diſtinguiſhing thoſe ſymptoms from la-"borious reſpiration, that depends upon a "local affection of the lungs. In the lat-"ter the difficulty of breathing is uniform; "whereas, in the former, both the expira-"tions and inſpirations will, for two or "three times, be natural and eaſy, and "immediately after become laborious and "unequal, and ſo on, alternately."

The urine, in general, underwent very little change. It was ſometimes a little increaſed in quantity, and at other times rather diminiſhed. But in thoſe caſes where the ſkin became yellow, the urine put on that dark brown appearance which is com-

mon in diffuſions of bile. In ſome inſtances of black vomiting, and in two or three caſes, previous to the occurrence of that ſymptom, the urine became exceedingly turbid, and depoſited a dark coloured matter.

Theſe were the ordinary train of ſymptoms, which attended the fever, we have endeavoured to deſcribe; and though in particular caſes, no doubt, ſome deviations might be noticed, yet it is believed there were none which could be thought to affect eſſentially the character of the diſeaſe.

In the treatment of the late epidemic fever, my firſt care was to have the patient placed in a room as large, and well ventilated as poſſible. The advantages ariſing from an attention to this part of practice, muſt appear obvious to all who reflect, that while a cauſe which may have produced a diſeaſe continues to act, or while circumſtances exiſt, which tend very much to aggravate the ſymptoms, the efficacy

efficacy of our remedies is rendered, if not of no avail, at leaſt extremely doubtful.

When the patient was placed in a ſituation as eligible as could be procured, the leading object was to evacuate the ſtomach and bowels. If this important point could be effected at the firſt attack, it was often found to cut ſhort the courſe of the diſeaſe: and when it did not do this, it for the moſt part rendered the ſubſequent ſymptoms ſo moderate, that they more readily yielded to the means of art.

In general it was not thought of much conſequence, what purgative medicine was uſed, except in inſtances where the ſtomach ſhewed ſigns of particular diſorder. A ſolution of ſalts and manna, in ſuch doſes as circumſtances ſeemed to indicate, was very commonly preſcribed. In moſt caſes it ſat eaſy upon the ſtomach; and even when the firſt doſes were rejected, by perſevering in its uſe, it finally paſſed downwards, and, upon the whole,

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was found to operate with more certainty and effect, than any other medicine.

The bowels being emptied, with ſalts and manna, it was thought expedient to continue the evacuation in a moderate degree; and for this purpoſe, a ſolution of manna and cream of tartar was employed, ſo as to produce its effect three or four times a day. This was a favourite medicine. It was found not diſagreeable to take, and generally remained upon the ſtomach, without producing any ſickneſs or other uneaſineſs. When the diſeaſe was extended beyond the ſixth or ſeventh day, and purgatives were indicated, there was a manifeſt advantage derived from equal parts of rhubarb and magneſia, in mint-water, over any other medicine, given in ſmall and repeated doſes; or a ſtrong watery infuſion of rhubarb, with the addition of a little manna, and ſp. lavend. comp. to render it agreeable to the taſte. Theſe medicines anſwered the pur-

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poſe of gentle aperients, whilſt they induced no debility by their operation.

If jalap and calomel were preſcribed at the beginning of the complaint, it was ſeldom thought neceſſary to repeat them. To preſerve the bowels ſoluble, a ſolution of manna and cream of tartar was found better to anſwer the intention.

When a diſordered ſtomach did not appear among the primary affections, but, on attempting the uſe of purgatives, they were thrown up again, a few grains of ipecacuanha, with a free uſe of camomile tea, has ſometimes emptied the ſtomach to advantage. After allowing the ſtomach to reſt a few hours, purgatives could then be employed with the uſual ſucceſs.

A diſordered ſtomach, with frequent retchings and efforts to vomit, was now and then met with at the beginning of the fever, and ſometimes, with other matters thrown up, there was an appearance of bile. Glyſters, frequently repeated, very commonly

commonly moderated this ſymptom. Occaſionally an infuſion of camomile, or, where the patient preferred it, warm water, was uſed to cleanſe the ſtomach; and as ſoon as there was a probability that the ſtomach would retain it, recourſe was had to the purgative ſolution.

When a ſenſe of weight and oppreſſion at the ſtomach, a tenderneſs or ſoreneſs of the præcordia upon preſſure, a vomiting of a bilious matter, of a dark poracious appearance, extreme reſtleſſneſs, a dejection of ſpirits, were met with among the primary ſymptoms, the caſe wore an alarming aſpect, and called for the utmoſt ſkill and exertions of the phyſician. To allay the vomiting, frequent glyſters, and the application of a bliſter to the region of the ſtomach, were found moſt effectual; and to theſe was added the occaſional uſe of effervеſcing draughts. If this method did not ſucceed, the feet and legs were wrapt in large flannel cloths, wrung very

dry

dry out of hot water. This expedient, by relaxing the veſſels on the ſurface, and inducing perſpiration, ſometimes relieved the diſtreſſing ſymptoms juſt enumerated.

When the vomiting could not be ſubdued, the patient at length threw up a dark coloured matter, reſembling the grounds of coffee, and ſometimes little dark coloured flakes were found mixed with it. To this affection of the ſtomach, ſucceeded coldneſs of the extremities, with a livid appearance of the hands and feet, intermitting pulſe, exceſſive anxiety, oppreſſion about the region of the ſtomach, and hiccough, with difficult and laborious reſpiration. Theſe ſymptoms continuing in a high degree, commonly indicated the near approach of death, which was ſeldom protracted to more than two or three days. I am happy to add, however, that there were not wanting inſtances of the recovery of perſons who had laboured under black vomiting, accompanied with all the diſtreſ-

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ſing ſymptoms peculiar to this ſtage of the diſeaſe.

It likewiſe happened during the progreſs of the foregoing ſymptoms, but at no certain period, that a hæmorrhage took place from the noſe, mouth, or gums, and ſometimes from all three ſources at once. In one inſtance, a friend of mine informed me, that the blood trickled from the internal parts of the ears. But in the courſe of my viſiting the ſick, I ſeldom met with conſiderable hæmorrhages, that the application of ice to the bleeding veſſels, or to the neighbouring parts, did not moſt certainly check the diſcharge.

The ſevere train of ſymptoms above enumerated, according to my obſervation, generally occurred in what might be called the ſecond ſtage of the diſeaſe, and ſometimes after a free uſe had been made of the lancet.

At the firſt of my attendance upon the epidemic fever, I was impreſſed with an idea

idea that an early recourſe to the bark was eſſentially neceſſary to the ſucceſsful treatment of it. Under the influence of this opinion, after the contents of the ſtomach and bowels were carried off, I directed the bark to be uſed, either in powder, decoction, or the cold infuſion, as circumſtances appeared to indicate. In every inſtance it was found to diſagree with the firſt paſſages. In ſome it occaſioned a fulneſs and ſtraightneſs about the præcordia: in others it offended the inteſtines, producing a fulneſs and ſoreneſs in the abdomen: whilſt in others it excited the ſyſtem, increaſed the head-ach, and brought on an acceſſion of fever. Nor did I ever ſee the bark do good, *until an entire ſolution of the diſeaſe took place*. That it might not have been beneficial, I ſhall not aſſert. If, however, an opportunity of a ſimilar kind unfortunately occurs, I ſhall preſcribe it, under particular circumſtances, in a manner very different from that in which I have before uſed it.

The bad effects of the bark, which ſo invariably followed the uſe of it, under my direction, were commonly removed by the uſe of purgatives. Whilſt the patient was taking laxative medicines, I made it a common practice to give freely of ſp. minderer. and evidently with good effects.

If the heat and fever were conſiderable, and the ſtomach retentive, ſmall doſes of antimonials, particularly James's powder, ſometimes joined with camphor, were found uſeful. The ſp. minderer. alſo, was a uſeful medicine in this ſtate of the diſeaſe.

The diaphoreſis which it commonly induced afforded great relief, and generally brought on a remiſſion, if not an intermiſſion of the fever. When a free perſpiration took place on the ſecond or third day, it was conſidered as a favourable event, and denoted a happy termination of the diſeaſe. But ſweating did not always

always prove ſerviceable. Inſtances happened, where this evacuation was profuſe from the firſt attack, without ſeeming to benefit the patient in any degree. When it came on thus early, the temperature of the ſkin generally, and particularly of the extreme parts, was ſo altered as to communicate a conſiderable ſenſe of cold to the touch.

With reſpect to calomel, which many have preſcribed with that freedom and conſtancy, as if it poſſeſſed ſome ſpecific qualities, I can ſay little from my own experience. I never could induce my mind to believe that it poſſeſſed any advantages over many other purgatives; and from the account given of its effects by ſome of my friends, I am diſpoſed to favour a belief that its operation, as a purgative, was *very limited.* It produced frequent ſtools, but the quantity diſcharged was very ſmall; and during the uſe of it, the patient frequently complained of a ſenſe of fulneſs and

and conſtriction in different regions of the abdomen. Theſe feelings were commonly ſoon relieved by the more copious evacuations procured by either of the purgative ſolutions before mentioned. That calomel has nothing ſpecific in its nature, ſeems pretty clearly evinced by thoſe caſes in which it has been taken as a preventive. Inſtances of this ſort were not unfrequent during the prevalence of the late epidemic in this city. But the fever was known to attack perſons under the influence of this medicine; while others, who did not take mercury, and were living preciſely under the ſame circumſtances, have eſcaped the diſeaſe.

Three perſons out of four, of the ſame family, had taken mercury for ſome time, with a view to guard themſelves againſt the fever; but they were, notwithſtanding, ſeized with the epidemic. In one, a ſalivation had been produced, and in this ſituation, he was attacked with fever.

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As ſoon as the fever came on, from a conviction that the mercury had not been of any ſervice to him, he omitted the uſe of it, and with the aſſiſtance of mild purgatives, ſoon got well. The fourth perſon, who had not taken any calomel, and who nurſed the other three, eſcaped the diſeaſe.

A number of other inſtances might be mentioned, in which calomel had been taken as a preventive, where the perſons, notwithſtanding, took the diſeaſe.

In the management of the late epidemic, the cold bath was frequently reſorted to. As a general application, I can ſay nothing of it from my own obſervation. I have been, indeed, in the habit of waſhing the hands, arms, face, neck, and breaſt, with cold vinegar and water, in caſes of fever, and always found it a very grateful refreſhment to the patient. I accordingly employed it freely, and as extenſively as conveniences would allow. But I know

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that the general bath was alſo employed for the late fever, with great advantage, but under what particular circumſtances I cannot ſpeak with preciſion. Doctor Charlton, of this city, a phyſician of much experience, who had in many inſtances witneſſed its good effects, favoured me with the following communication: "I "experienced the happieſt effects from "cold bathing, in a variety of caſes. I uſed "river-water, and had the patient placed "in a large tub, and a couple of pails-full "thrown over him. It happened in one "inſtance only, that the patient did not feel "ſo much refreſhment, as to be impatient "for a repetition of it. In this caſe the "patient grew chilly after uſing the bath, "which I thought a ſufficient reaſon for "diſcontinuing it. In every other inſtance "I found no method ſo effectual for reliev- "ing the extreme diſtreſs of the head and "ſtomach, ſo generally attendant on that "diſeaſe."

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We find a ſimilar practice recorded by Mr. Bruce, who ſays, that the inhabitants of Maſuah are ſubject to violent fevers, which "generally terminate the third "day in death. If the patient ſurvives till "the fifth day, he very often recovered by "drinking water only, and throwing a "quantity of cold water upon him, even "in his bed, where he is permitted to lie, "without attempting to make him dry, or "change his bed, till another deluge adds "to the firſt."

In the uſe of cordial medicines, or drinks of that nature, much circumſpection was neceſſary. In the firſt ſtages of the diſeaſe, they were altogether inadmiſſible. They were preſcribed in ſome inſtances, after conſiderable remiſſions had taken place, but manifeſtly to the injury of the ſick. Even after complete intermiſſions had formed, they ſometimes produced a ſtate of excitement, which rendered the patient's ſituation much leſs comfortable.

comfortable. Theſe obſervations apply particularly to thoſe caſes, where the remiſſions took place at an early period, or where the diſeaſe did not run out beyond the fifth, ſixth or ſeventh day. When the fever was of longer continuance, the debility it induced made the uſe of cordials not only allowable, but particularly neceſſary.

Porter, more or leſs diluted, was found to agree better with the ſick than any other drink of the cordial kind: but its ſalutary effects appeared very much to depend upon a liberal ſtate of the bowels. When given conjointly with ſome mild purgative, it increaſed the ſtrength, and very often ſuperſeded the uſe of any other tonic.

In the latter ſtages of the complaint an infuſion of ſnake-root was alſo made uſe of with advantage. On many occaſions it compoſed the ſtomach, ſupported the ſtrength of the patient, without exciting him, and ſeemed productive of very happy effects.

Much

Much has been ſaid and written reſpecting the uſe of the lancet, and the effects of bleeding in this diſeaſe. On this part of practice I ſhall advance nothing, but what is the reſult of experience and obſervation. In general, the indications of cure were not ſuppoſed to include this operation; it was, therefore, but ſeldom had recourſe to. In ſome of thoſe caſes, in which the lancet was uſed, the good effects of bleeding were obvious, more eſpecially in relieving the diſtreſſing pain in the head; whereas in other inſtances, and, where the ſymptoms ſeemed to render it peculiarly proper, it did not afford the relief that was expected from it; but, on the contrary, although the quantity of blood drawn was copious, and the bleeding frequently repeated, the patient ſunk under the diſeaſe.

If I were to ſay in what caſes bleeding would probably be uſeful, it would be where the fever ſeizes upon healthy, robuſt con-

ſtitutions, where the pain in the head was extremely violent, and where the eyes, (to uſe a frequent expreſſion of the ſick) ſeemed ready to leap from their ſockets, *and eſpecially if ſuch a ſubject had juſt arrived from the purer and cooler air of the country.* In a perſon of this deſcription, the attack, and all the ſubſequent ſymptoms, are commonly violent indeed; to moderate, therefore, the exceſſive action of the ſyſtem, bleeding would probably be neceſſary and uſeful. Under circumſtances like theſe, I have accordingly bled, and to good purpoſe; but I have, previouſly to blood-letting, directed my patient to drink freely of warm water; by which means I have obſerved, that not only the action of the vaſcular ſyſtem was much abated, but alſo that the whole body more readily yielded to a copious perſpiration. But if a perſon is attacked with this fever, whoſe body has been previouſly debilitated, perhaps by a ſedentary manner of living, and

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from having reſided ſome time in the epidemic conſtitution of the air, it could hardly be ſuppoſed that the ſame remedies would be required as in the former inſtance.

An attention to the above diſtinction of cauſes, as far as reſpects the remedy of bleeding particularly, may be of greater importance in the treatment of this diſorder, than has been commonly imagined.

Opium was rarely admiſſible in this fever, and never in the firſt ſtage of it. But after the contents of the ſtomach and bowels were freely evacuated, and the exceſſive action of the ſyſtem moderated, the uſe of it was juſtified in many inſtances of ſucceſsful practice. Indeed, particular caſes occurred, in which great irritation, reſtleſſneſs, and want of ſleep, could by no other means be ſo well alleviated. When given under ſuch circumſtances, it was commonly conjoined with ſome ſudorific, and moſt frequently with ſp. mind. When, alſo, in the advanced ſtage of the diſeaſe, the

the vomiting became exceſſive, opium was adminiſtered with the beſt effects.

Bliſters were occaſionally employed; they were found moſt uſeful in removing local affections. If the head-ach continued ſevere, after free evacuations, a bliſter, applied between the ſhoulders, often removed the pain. When the ſickneſs at the ſtomach was great, attended with oppreſſion and pain, a bliſter to the præcordia has often proved of advantage. Doctor Blane found nothing ſo ſucceſsful in removing irritability of the ſtomach, as a bliſter applied externally to the part. When there has been a general foreneſs and fulneſs of the abdomen, which has not ſubſided after a free uſe of purgatives, the application of a bliſter has produced the happieſt effects. A friend of mine had a young clergyman under his care, whoſe diſeaſe, from its continuance, had become very formidable. He was covered with petechiæ; his ſtomach was eaſily excited;

cited; his ſtools were generally of a dark colour, and ſometimes black. The bark had been tried, but it did not agree with him. Upon examining the abdomen, it was found univerſally tender to the touch, but not painful. A large bliſter was applied to the affected part, the operation of which put an immediate check to the progreſs of the diſeaſe. His drink was porter, to which water was occaſionally added; and with the aſſiſtance of an eaſy diet, ſuch as ſago, gruel, &c. his recovery was ſoon completed.

The drinks which ſeemed the moſt grateful to the ſick, and were conſidered as the moſt proper during the fever, were lemonade, water with toaſt in it, water alone, molaſſes and water, balm-tea, &c.

The diet commonly recommended was ſago, tapioca, panado, and occaſionally weak broths. The latter, however, frequently produced uneaſineſs at the ſtomach, which made it neceſſary to deſiſt from

from their uſe. A gruel made with Indian-meal, or oat-meal, appeared, upon the whole, to agree better with the ſick than any other food; and, in many inſtances, it conſtituted the whole diet and drink of the patient.

The uſe of animal food was uniformly attended with bad effects; the ſmalleſt quantity, taken in the intermiſſion, has haſtened the acceſſion of fever, and increaſed its violence. Even after the diſeaſe had entirely ſubſided, and debility only remained, a too early recurrence to animal food has brought on a renewal of fever.

I ſhall only add, that through the whole courſe of the diſeaſe, the ſtricteſt attention was paid to cleanlineſs, eſpecially to the immediate removal of all excrementitious matter. The patient's linen, bed-cloaths, and often the bed itſelf, were frequently changed, and the refreſhment it always afforded was a ſufficient proof of its utility.

The

The foregoing exhibits an unvarniſhed view of the hiſtory of the late epidemic, as far as it came under my notice; and of the practice, as far as it ſeemed rational, and was ſucceſsful under my management: and I have purpoſely avoided, as much as poſſible, all theoretical or controverſial grounds.

Indeed, I have been anxious about nothing ſo much as to fix upon the mind, the great and obvious diſtinction betwixt contagious diſeaſes, and thoſe which, under very peculiar circumſtances, may aſſume much of that character.

The utility of this diſtinction is ſo well ſhewn by Doctor John Hunter, in his Enquiry into the Nature and Cauſes of the Remittant Fever, that I cannot do better than give his own obſervations upon the ſubject. "There is hardly any part of the "hiſtory of a diſeaſe (ſays the Doctor) "which it is of more conſequence to "aſcertain with accuracy, than its being

"of

" 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 in-
" conveniences, which greatly aggravate
" their ſufferings, and often deprive them
" of the neceſſary aſſiſtance: they are neg-
" lected, if not ſhunned; and at the time
" they require the greateſt care and at-
" tention, they have the leaſt. I have
" had occaſion to obſerve, that the remit-
" tant fever, whether with its uſual, or
" more uncommon ſymptoms, with the
" yellow colour of the eyes and ſkin, or
" without them, was never found to be
" infectious. The ſtrongeſt proofs of this,
" in my opinion, were to be met with in
" private families, where the ſon, the bro-
" ther, or the huſband, labouring under
" the worſt fevers, were nurſed with un-

" remitting

" remitting aſſiduity, by the mother, the " ſiſter, or the wife, who never left the " ſick by day or by night, yet without be- " ing infected. That ſuch near relations " ſhould take upon them the office of a " nurſe, is matter of the higheſt commen- " dation in a country, the diſeaſes of which " require to be watched with greater care " and attention than can be expected from " a ſervant."

Why the late epidemic, in many inſtances during its deſtructive progreſs in this city, wore the dreadful aſpect of contagion, may be gathered, in a good degree, from the few following particulars, within the knowledge of us all, viz. The laſt ſummer, and a great part of the autumn, were marked by an uncommon degree of heat, combined with moiſture. The atmoſphere, which, at that ſeaſon, is ordinarily loaded with the electric fluid, ſeemed deſtitute, for weeks together, of this vivifying principle. The intenſe

heats which we often experience in the forenoons of July and Auguſt, are generally allayed by thunder and lightning, and the refreſhing rains, which follow towards the evening; but in the ſeaſon referred to, this precious relief from the languor induced by a verticle ſun, was ſeldom felt.

Now, when we reflect that a great majority of thoſe who fell victims to the late epidemic fever were not only foreigners, but poor perſons, many of whom had been only a few weeks in the country, arrived after a long voyage, and prediſpoſed to ſickneſs by hard and ſcanty fare; huddled together, in a great many inſtances, in the moſt uncomfortable apartments, and theſe ſituated in the moſt unhealthy parts of the city; frequently without the early attention of a phyſician, deſtitute of friends, and often without the moſt common comforts of life; under ſuch diſtreſſing circumſtances, notwithſtanding the humanity

nity of the citizens, were numbers placed; and what conſequences, but thoſe which followed, could reaſonably have been expected?*

* In the former part of this eſſay, we enumerated many circumſtances which tended to ſhew, that the ſeaſon of the late epidemic more eſpecially, was attended with *an uncommon conſtitution of the air*. Since theſe obſervations were put together, I have been favoured with a letter from Mr. Gardiner Baker, proprietor of the Muſeum in this city, who mentions ſeveral occurrences illuſtrative of the ſame thing. He obſerves, "Books in my libra-"ry, and thoſe that were in daily uſe, were covered "with mould. All the preſerved animals in the Mu-"ſeum, that were not contained in glaſs caſes, were in-"jured very much by the long continued atmoſ-"pheric moiſture, and ſome of them quite ſpoiled; parti-"cularly a very finely preſerved buffaloe, which had, in "the courſe of twelve years, been expoſed to every climate "on the continent, without ſhewing the leaſt diſpoſi-"tion to decay. But, in the month of Auguſt laſt, upon "applying my hand under the belly, I found it as wet as "if taken out of water, and ſoon after this part of the ani-"mal began to fall, piece by piece, as large as my two "hands, until the whole of the belly had fallen to the floor. "Fiſh that had been well preſerved for ſeveral weeks, "had collected ſo much moiſture from the air, that drops "of water fell from them.

"I have a very excellent electrical machine, and have "been in the daily habit of uſing it; but during the ſick-"neſs, when the appearance of the atmoſphere was the "moſt favourable, I could not, with all my art or induſtry,

"excite

" excite it, so as to answer any purpose in experiment, " &c. when, in the ordinary state of the atmosphere, four " or five revolutions of the cylinder, will give as hard a " shock as a man can bear with convenience."

The foregoing observations of Mr. Baker prove, in a remarkable degree, that there was a prevailing property in the air, viz. *extreme moisture.* The annexed table will exhibit the degree of heat, which appears, upon an average, to exceed the usual temperature several degrees.

Meteorological Observations for 1795, *made by G. Baker.*

THERMOMETER.

Months.	*High.*	*Low.*	*Weather.*	*No. of Rains.*
January.	44 50	8	Very variable.	6 small quan.
February.	46	5	Not very variable.	2 very little.
March.	62	23	Not very variable.	9 small quan.
April.	74	28 50	Variable.	12 large quant.
May.	81	48 50	Not very variable.	14 large quant.
June.	87	57	Very variable.	6 small quan.
July.	89	63	Not variable.	9 considerab.
August.	93 50	57 50	Not very variable.	11 large quant.
September.	87	48	Not variable.	8 small quan.
October.	75	38 50	Not very variable.	8 small quan.
November.	67	20	Not very variable.	9 considerab.
December.	54	37	Not variable.	8 small quan.

BAROMETER.

Months.	*High.*	*Low.*	*Months.*	*High.*	*Low.*
January.	30 20	29 30	July.	30 11	29 55
February.	30 5	29 45	August.	30 5	29 50
March.	30 30	29 15	September.	30 8	29 25
April.	30 17	29 35	October.	30 28	28 80
May.	30 15	29 65	November.	30 23	28 95
June.	30 40	29 60	December.	30 6	28 85

" It is very remarkable, that for near three years there has " been but a very small quantity of thunder and lightning. " In the month of May last it thundered and lightned three " times, and there was no more until October, when we " had a very distant thunder, and some lightning, and this " was the last for 1795."

APPENDIX.

INTRODUCTION.

THOSE who have inclination, and have not perused the writings of some authors justly distinguished for their talents in medicine, and who have written professedly on the *fever in question*, (for I pay no regard to the various names by which it is known) may find in the annexed pages, a very circumscribed view of their opinions of right practice, as far as respects the most efficacious remedies employed against it. Those who have more leisure, and more curiosity, will, of course, consult the originals from whence they are taken; for my own part, I have by no means intended, by this selection, to strain any part of their practice, with a view to strengthen, or give consequence to *my own opinions*, or to fix a *methodus medendi*, which, it will occur to every intelligent practitioner, obtained under circumstances, in many instances, very dissimilar.

HILLARY.

THE first indication of cure, Doctor Hillary observes, is " to moderate the too great and rapid motion " of the fluids, and abate the heat and violence of the " fever,

" fever, in the two firſt days of the diſeaſe. Wherefore
" bleeding, in the beginning of the firſt ſtage of this fe-
" ver, either to a greater or leſs quantity, accordingly as
" the following ſymptoms and circumſtances indicate, is
" always abſolutely neceſſary: and the quantity to be ta-
" ken away ſhould always be as the age and ſtrength of
" the patient, the degree of the plethora, and the greater
" or leſs elaſtic ſtate of the ſolids, the fulneſs of his pulſe,
" and the violence of the fever and its ſymptoms. For
" which reaſon, when I have been called in time, (which
" is too ſeldom the caſe) I generally order 12, 14, 16,
" 18, or 20 ounces of blood to be taken away on the
" firſt or ſecond day; but always, as the above ſymp-
" toms and rules indicate and direct: and if the patient's
" pulſe riſes after the firſt bleeding, or if the fever con-
" tinues to be ſtill high, and the pulſe full, (for it is ne-
" ver high in this fever) I repeat the bleeding once, in
" the firſt or ſecond day of the diſeaſe, if the above
" mentioned ſymptoms indicate it; but bleeding a
" third time is ſeldom or never required, neither is
" bleeding on the third day almoſt ever required; and
" when it is performed on that day, it ought not to be
" adviſed without great caution and judgment; neither
" ſhould a vein be opened after the third day in this
" fever, unleſs ſome very extraordinary ſymptoms and
" circumſtances require it, which very rarely or never
" happen. I have always found that taking away a
" moderate, but ſufficient quantity of blood on the firſt
" or ſecond days, has rendered the fever more moderate,
" and abated the putreſcent diatheſis afterwards. But
" as to the quantity of blood to be taken away in this
" caſe, either the firſt or ſecond time, or on the firſt or
" ſecond days, it is impoſſible to aſcertain it, ſince that

" muſt

" muſt be different, in different patients; becauſe ſome
" conſtitutions can better bear the loſs of fifty ounces
" of blood than others can the loſs of eight or ten;
" therefore, the only rules that can be given are thoſe
" laid down before."

The irritable ſtate of the ſtomach, Doctor Hillary ſays, forbids the uſe of emetics; but to carry off the contents of this organ, a liberal uſe of warm water is recommended, which greatly relieves the patient. In the next place, " in order to gain a truce, and ſome
" reſpite from the anxiety, and almoſt continual
" reaching, vomiting, and ſickneſs, which are not in-
" creaſed, but ſomewhat relieved by drinking the warm
" water, I uſually give extract. thebaic. g. 1 vel. g. 1 ſs.
" and order them to take nothing into their ſtomachs for
" two hours after it, that they may retain it; and it be-
" ing in ſo ſmall a compaſs, they ſcarce ever reject it.
" By this method the poor diſtreſſed patient gets ſome
" reſt and reſpite, and all the ſymptoms are generally
" conſiderably abated, the reaching and vomiting ei-
" ther totally ceaſes, or do but ſeldom return; ſo that
" other medicines may be given and retained on the
" ſtomach, which it would not retain before; ſuch as
" cooling acid juleps, or other antiphlogiſtic and anti-
" ſeptic medicines."

The evacuation of the bowels is the next circumſtance to which Doctor Hillary directs our attention. He attempts this firſt by glyſters, " and after ſix or eight
" hours reſt and reſpite, he orders a gentle antiphlogiſ-
" tic and antiſeptic purge.

" Or if the patient has a purging before, which
" ſometimes, though very ſeldom happens, I order a
" gentle doſe of toaſted rhubarb to be given, and an an-
tiſeptic

" tiſeptic anodyne, after it has operated, to abate and " check the too much purging, but not to ſtop it, as I " have always obſerved it to be of ſervice in this caſe, " provided that it is moderate, and not too violent: and " I obſerved that all thoſe who had this purging, gene- " rally did well with it, if the patient's ſtrength was " but properly ſupported with ſuitable nouriſhment, " and proper antiſeptic medicines, which laſt are al- " ways abſolutely neceſſary in this fever.

" And though purging in many other fevers, may be " deemed bad practice, yet in this fever, as nature in- " dicated it, I have always found it of ſingular ſervice, " and the patient not only greatly relieved by it, but the " diſeaſe always rendered more moderate and manage- " able afterwards."

Doctor Hillary not only purges in the beginning of the diſeaſe, but, ſays he, " and I moſt commonly find " it neceſſary to repeat this purging every ſecond or " third day, for two or three times, and ſometimes, " when the ſymptoms are very bad, and have not " much abated upon taking the firſt and ſecond purge, " and the patient has not been treated in the method " before deſcribed, or I have not been called in till late " in the diſeaſe, I have found it neceſſary to repeat the " gentle purging every day, for four or five days ſuc- " ceſſively, and with the deſired ſucceſs too."

In the latter ſtages of the diſorder, when, (according to Doctor Hillary) it might be ſuppoſed that antiſeptics " were neceſſary to put a ſtop to the putreſcent diſpo- " ſition of the fluids, and prevent gangrenes coming " on," our author found the cort. peru. though a medicine of the nature indicated, " ſo diſagreeable to " moſt palates, and the ſtomachs of the ſick, in this

diſeaſe

" diſeaſe, are ſo much affected, and ſo weak, and ſo " ſubject to reject every thing, even the moſt pleaſant " and innocent, that they can very rarely take it in any " ſhape, and ſtill much fewer can retain it, when they " have got it down."

As a ſubſtitute for the bark, Doctor Hillary uſed an infuſion of ſnake-root, to which Madeira wine and elixir of vitriol was added, " and with much bet- " ter ſucceſs than he could hope for, or dare expect." If this medicine required " more warming," the quantity of rad. ſerpent. was increaſed, or vin. croc. or confec. cardiac. or ſome ſuch medicines were added.

Thoſe ſymptoms, viz. " low pulſe, coma, delirium, " coldneſs of the extreme parts, tremors, convulſions, " ſpaſms, &c." which might be ſuppoſed to indicate viſicatories, " have not only not been relieved by their " application, but have been increaſed thereby, and the " hæmorrhage which uſually attends this fever has been " haſtened on, or if come on before, it has been in- " creaſed by their application.."

HUME.

" The firſt patient I was called to, was one An- " drews, a plethoric, muſcular man, about twenty-five " years of age: he had not complained three hours " when I ſaw him, about ten in the forenoon; yet the " oppreſſion on the præcordia, and the bilious vomit- " ings had already ſeized him. His pulſe was full and " ſtrong, and I took ſixteen ounces of blood from his " arm immediately, and ordered a laxative clyſter to

" be injected as ſoon as it could be got ready, and en-
" joined him to drink plentifully of barley water, acidu-
" lated with the juice of the lime. I called upon him at
" noon, and was much diſappointed to find the ardent
" ſymptoms, and the oppreſſion on his breaſt both in-
" creaſed: his vomitings were almoſt continual, and
" he complained much of diſtreſs on breathing, and of
" the burning of his eyes. The reaſons for bleeding
" him ſtill continuing, I took fourteen ounces of blood
" from the ſame orifice, and ordered him, the ſame
" evening, a ſcruple of ipecacuanha at ſix o'clock, and
" at ten applied a large bliſter between his ſhoulders,
" in hopes of relieving his cheſt."

" He continued to vomit, with but ſhort intermiſ-
" ſions, from the time he took the emetic, although he
" diſcharged a great deal of bile by ſtool. He had a
" very reſtleſs night, and continued through the ſe-
" cond day, vomiting, and labouring under the oppreſ-
" ſion of his breaſt, till about twelve at night, when
" he died; about forty hours from the time of his be-
" ing firſt ſeized.

" At this time the practice in Barbadoes was, to uſe
" large and repeated bleeding, vomiting, and bliſtering,
" as recommended by Doctor Town, which method I,
" as a ſtranger, thought myſelf obliged to follow.

" Before Andrews died, ſeveral others were taken
" ill, and, except the ſecond bleeding, which was omit-
" ted, they were treated the ſame way, with no better
" ſucceſs."

Doctor Hume next relates the morbid appearances exhibited upon opening the bodies of the two firſt men who died. There were an inlarged liver, and " evi-
" dent marks of inflammation on the lower extremity

" of

" of the ſtomach, and likewiſe on the ſuperior part of
" the duodenum.

" No marks of mortification were found on the in-
" ternal or external ſurface of the ſtomachs of either of
" theſe men; but I opened two not long after, who
" died in a more advanced ſtate of the diſeaſe, and found
" one of them, who had vomited the black matter, in a
" ſtate of mortification every where, and ſome coagu-
" lated blood in it; the internal coats of the other were
" covered with livid ſpots of different ſizes, and, exter-
" nally, towards the bottom, there were large black
" ſpots of the ſize of a crown piece."

" Having obſerved, with much regret, the bad ſuc-
" ceſs I had from bleeding and vomiting, and that the
" firſt man who died evidently ſunk after the firſt
" bleeding, I bled the reſt but once; and when the pa-
" tients were not plethoric, I have frequently omitted
" the operation altogether, as I ſometimes did when I
" had not ſeen them within twenty-four hours of be-
" ing taken ill."

" I have ſeen ſome ſubjects opened, on whoſe ſto-
" machs no marks of inflammation could be diſcover-
" ed, yet even theſe had exceſſive vomitings."

" The ſtate in which I found the ſtomachs of the
" two firſt men who died, deterred me from giving any
" more vomits; and I have ever found that bowel ſo deli-
" cate and irritable, that I have never ſince ventured to
" give any emetic whatever. There ſeems, however,
" a neceſſity to evacuate the bile by the ſtomach, by the
" inteſtines, and by the ſkin, when there is a tendency
" to ſweat."

" After bleeding, I uſed to order a clyſter of &c. and
" for common drink, I ordered a pleaſant ſherbett made
" of freſh, ripe limes, &c."

" I found

" I found this not only a pleasant drink for the sick,
" but looked upon it as the most powerful antiseptic,
" and antiemetic I could give them. It is true that
" on first using, it was thrown up as fast as water,
" when an emetic is given; but such as had resolution
" to persevere in drinking it, soon found their sick fits
" less severe; and, after the first three or four draughts,
" every succeeding one remained longer on the stomach
" than that before it, so that, in a few hours, the inter-
" missions between the fits of vomiting came to be so
" lengthened, that I could attempt giving some mild
" purgative medicine. I commonly ordered two ounces
" of manna, and one of cream of tartar, dissolved
" in three pints of lemonade. Of this I gave them
" a few spoonfuls, or a tea-cup full, at such dis-
" tances of time, as I thought their stomachs could
" bear."

" Manna and cream of tartar was continued occa-
" sionally, through the whole course of the disease, on-
" ly it was sometimes changed for tincture of rhubarb,
" drawn in weak cinnamon-water, to render it more
" grateful to the stomach. When these failed of pro-
" ducing frequent bilious stools, glysters were injected;
" but the heat, frequency, and acrimony of these bi-
" lious stools, often deprived me of this resource, for
" the extremity of the rectum, many times, became so
" tender as not to be able to bear the introduction of
" the smallest and smoothest pipe."

" When I observed any tendency to sweating, I al-
" ways discontinued the laxative medicines, and gave
" six drachms, or an ounce of the sp. mind. and re-
" peated the dose in five or six hours, if the sweat con-
" tinued so long, encouraging the sick to drink a weak

" infusion

" infuſion of ſage, acidulated, if they deſired to have " it ſo."

Doctor Hume recommends the application of bliſters to the thighs, to relieve the ſevere vomitings. " When," ſays he, " the ſick complained much of the " bliſters of their thighs, the vomiting uſually began " to abate, and to ceaſe entirely, as the irritation and " inflammation increaſed."

" This fever, like ſome others, often ends in ſcabby " eruptions about the mouth and noſe, and ſometimes " I have ſeen ſmall biles, from the ſize of a common " pea to that of a horſe-bean, break out on the breaſt, " ſides, ſhoulders, or hips, and prove critical."

" There is one critical appearance, which I do not " remember to have ſeen taken notice of by any wri- " ter on the bilious fever, and which, I believe, has " been obſerved by few practitioners, (it ſometimes " happens in the third ſtage, and ſometimes in the " courſe of it) which is, one or more cluſters of ſmall " florid eruptions on or near the pit of the ſtomach, " not larger than meaſles, and from three or four to " ſeven or eight in a cluſter."

" In whatever ſtate of the diſeaſe the ſick are re- " lieved, whether by ſweats, bilious ſtools, biles, erup- " tions, or by bliſters, and it is evident from the ceſſa- " tion of the vomiting, from the load at the breaſt be- " ing removed, and from the reſpiration becoming ea- " ſier, that the fever is giving way, we ſhould attempt " to give the bark: ſooner would be to no purpoſe, for " it would hurt the patient, by exaſperating the ſymp- " toms."

To the infuſions of bark, uſed by Doctor Hume, ſnake-root was added.

Speaking

Speaking of opiates, Doctor Hume says, " it does " not seem probable that they can be of any use in this " disease, if it is considered, that the principal inten- " tion of cure is the evacuation of the offending bile, " by every outlet; and to attempt confining it by opi- " ates, is to counteract that intention."

DOCTOR JACKSON
ON THE FEVERS OF JAMAICA, &c.

Doctor Jackson, after dividing the yellow fever into three species, and giving the symptoms attending each form, proceeds to the method of cure.

Treatment of the first species.

" The species of the yellow fever," says he, " which " I have now described, is universally allowed to be a " terrible disease; and there are few, I believe, so un- " candid as to boast of general success in the manner " of curing it. A road is, therefore, left open, not on- " ly for improvement, but almost for total innovation. " The only author I have read on the subject, or the " practitioners with whom I am acquainted, do not " seem to have extended their views beyond the symp- " toms of the disease. There are some, who, from ob- " serving that there is pain in the head, and flushing of " the face, recommend bleeding; others, from the pre- " sence of nausea, or inclination to vomit, make trial " of emetics; and many, from various causes, insist on " the indispensible use of cathartics. My views, I must " confess, are different from those of preceding authors. " Bleeding was employed occasionally; emetics were " cautiously

" cautiouſly avoided; but time appeared to be too pre-
" cious to be ſpent in attending to the effects of ca-
" thartics, which cannot often be known in leſs than
" twenty-four hours; and which at beſt are precarious
" and feeble. Inſtead, therefore, of attempting to eva-
" cuate redundant bile, or to correct it when ſuppoſed
" to be vitiated, I exerted myſelf from the firſt moment
" that I was called to the patient, to change the genius
" and natural temper of the diſeaſe; or, if I may be al-
" lowed the expreſſion, to take the buſineſs, as ſpeedily
" as poſſible, out of the hands of nature."

" I remark, in the firſt place, that I generally began
" the cure of this ſpecies of the yellow fever with bleed-
" ing. Bleeding was employed in the preſent caſe,
" chiefly with a view of paving the way to remedies
" of greater efficacy. It was, however, found to mo-
" derate the violence of local pain, particularly the
" violence of the head-ach, and to be not altogether
" without effect in retarding the uſual rapid progreſs of
" the diſeaſe. It has hitherto been thought neceſſary,
" indeed almoſt indiſpenſible, to empty the firſt paſſa-
" ges in this ſpecies of fever; but time is ſhort, and the
" good which accrues from ſuch evacuations, is not
" very certain, and often not eſſential. It was, there-
" fore, thought ſufficient to truſt this intention, for the
" moſt part, to laxative glyſters; after the employment
" of which, (bleeding having been premiſed in ſuch
" quantity as was deemed proper) the patient was waſh-
" ed clean, and bathed in warm water, in as complete
" a manner as the circumſtances of ſituation would
" permit. It is needleſs to mention that this was done
" with a view to increaſe the mobility of the ſyſtem,
" and to remove ſpaſmodic ſtricture from the extreme

" veſſels

" veſſels of the ſurface; in conſequence of which,
" greater benefit was expected from the application of
" cold ſalt water, which was daſhed ſuddenly from a
" bucket on the head and ſhoulders. This practice
" may appear hazardous to thoſe who argue without
" experience; but I can vouch for its general ſafety,
" and bear teſtimony to its good effects. Sweat, with
" perfect relief from all the feelings of anxiety and diſ-
" treſs, was generally the conſequence of this mode of
" treatment. If employed within the firſt twelve hours
" from the attack, it ſeldom failed of removing all the
" ſymptoms of danger; or of affecting a total and com-
" plete change in the nature and circumſtances of the
" diſeaſe; but if the progreſs was more advanced, though
" the ſame rule of practice might ſtill be proper, the
" execution required more boldneſs and deciſion. It
" is only poſſible to judge from the circumſtances of the
" caſe, at this period, of the neceſſity or propriety of
" bleeding, and of emptying the lower inteſtines, by
" means of glyſters; but when this buſineſs ſhall
" have been accompliſhed, in ſuch manner as ſhall
" have been deemed right, or conducive to the main
" view, it will be adviſable to ſhave the head, to bathe
" the whole body in warm water, and inſtantly to daſh
" cold water from a bucket on the head and ſhoulders.
" I have even ſometimes, where there was an appear-
" ance of greater obſtinacy, ventured to wrap the whole
" body in a blanket ſoaked in ſea-water, or in water in
" which was diſſolved a large portion of ſalt. If anx-
" iety was great, or nauſea and vomiting troubleſome,
" I have alſo obſerved benefit from the application of a
" bliſter to the epigaſtric region. Opiates, joined with
" remedies which had a tendency to determine to the
" ſurface,

" ſurface, were found to be ſerviceable; and wine, with
" a ſupply of freſh and cool air, in moſt caſes was high-
" ly neceſſary. This method of proceeding will, per-
" haps, be thought unwarrantable, but I can ſpeak con-
" fidently of its ſafety; and I may further add, that
" unleſs ſome decided ſteps are taken to change the
" nature of the diſeaſe, during the continuance of this
" ſtage, our future endeavours to do good will gene-
" rally be in vain. I have hitherto promiſed ſucceſs in
" the cure of this fever, with a good deal of confi-
" dence; but if it ſhould ſo happen, that we are not
" called to the patient till the yellowneſs has ſpread
" over the whole of the body, or till the black vomiting
" has begun to make its appearance, the proſpect, I
" muſt confeſs, is then very dark. The ordinary re-
" ſources of our art are feeble; and if good can be
" done at all, it can only be done by means, which, in
" the common opinion of practitioners, border on
" raſhneſs. In this latter ſtage of the complaint, ſo
" great a degree of torpor overwhelms the powers of
" life, that remedies do not produce their uſual effect,
" and our labour is often the ſame, as if we attempted
" to reſuſcitate a corpſe. I have, however, ſeen in-
" ſtances of ſuch unexpected recoveries, from the moſt
" hopeleſs ſtate in fevers, that I ſeldom totally deſpair
" as long as life remains. I know that death may be
" prevented, even after black vomiting has appeared,
" with all its terrors, if a remedy can be found power-
" ful enough to excite the action of the extreme veſſels,
" and to recall the determination to the ſurface of the
" body. For this purpoſe, I have employed alternate-
" ly, warm and cold bathing, with ſucceſs. I have
" even wrapt the body, as I mentioned before, in a

" blanket ſoaked in water, in which a large portion of
" ſalt was diſſolved, or which had been ſteeped in bran-
" dy or rum, enjoining, at the ſame time, the liberal uſe
" of wine, or even more powerful cordials. I have
" heard of ſome well atteſted inſtances, where plenti-
" ful draughts of rum and water have checked the vo-
" miting, and apparently ſaved the lives of patients, af-
" ter the medical people had given them up for loſt."

Treatment of the ſecond ſpecies.

" The cure of this ſpecies of the diſeaſe, though by
" no means eaſy, was leſs difficult, upon the whole,
" than that of the former. Inſtead of the torpor and
" inſenſibility, which prevailed in the latter periods of
" the proper yellow fever," (for Doctor Jackſon con-
ſiders the firſt deſcribed ſpecies as the true yellow fe-
ver of Jamaica) " the mobility of the nervous ſyſtem
" was ſo much increaſed in the preſent ſpecies of diſ-
" eaſe, that remedies ſeldom failed of producing ſenſi-
" ble effects: and wherever remedies produce effects, it
" is generally in our power to manage the buſineſs in
" ſuch a manner, that ſome good may ariſe. It may be
" obſerved in the firſt place, with regard to the cure,
" that bleeding, which frequently was uſeful in the for-
" mer ſpecies, was generally hurtful in the preſent; and
" that, inſtead of retarding, it oftener accelerated the
" progreſs of the diſeaſe. Emetics were employed,
" very commonly, by the practitioners of the Weſt-
" Indies, in this as in other caſes of fever; but I can-
" not help remarking, that languor and debility, fre-
" quently yellowneſs, and ſometimes a continual vo-
" miting, which no remedies could reſtrain, were often
" the conſequence of antimonial emetics of ſevere
" operation; and I have no doubt in ſaying, that the

" approach

" approach of death was actually haſtened, in ſeveral " inſtances, by this method of treatment. Laxatives " were occaſionally of ſervice; but the ſtronger purga- " tives frequently hurtful. Bliſters were often ex- " tremely beneficial; but it requires care and diſcern- " ment to apply them in the proper circumſtances, ſo as " to reap the full advantage. Opiates were ſometimes " ſerviceable; and bark and wine, in moſt inſtances, " were remedies of great value; but the principal truſt " was placed in warm and cold bathing, which, under " proper management, ſeldom failed of anſwering every " expectation completely, or ſpeedily of removing the " chief ſymptoms of danger. Sometimes it appeared " to cut ſhort the courſe of the diſeaſe abruptly."

In the next place, as introductory to the ſymptoms and method of cure, of the third ſpecies of yellow fever, Doctor Jackſon obſerves, " I have now deſcribed two " ſpecies of fever, which ſeem to be, in ſome degree, " peculiar to the natives of northern regions, ſoon af- " ter their arrival in the Weſt-Indies. In the one, a " determination to the alimentary canal and biliary or- " gans, with marks of putreſcent tendency, in the ge- " neral maſs of fluids, was diſcoverable at an early " period; in the other, the brain and nervous ſyſtem " were more particularly and principally affected; " while the ſpecies of which I now attempt to give " ſome account, exhibited ſtrong marks of vaſcular ex- " citement, with a very high degree of apparent in- " flammatory diatheſis. This was more irregular in " its appearances, and more complicated in its nature, " than the others. The marks of inflammatory diathe- " ſis were generally very apparent in the beginning; " but they uſually gave way, or became complicated

" in

" in the latter ſtages, with ſymptoms of putreſcency or " nervous affection."

Speaking of the cure of this ſpecies, he ſays, " if we " proceed on the firſt obvious view of the diſeaſe, we " ſhall often do irreparable miſchief, by copious and " repeated evacuations; yet there will not be leſs dan- " ger, on the other hand, if, regardleſs of the preſent " degree of excitement, we indulge freely in the uſe " of ſtimulants. It is neceſſary to obſerve a middle " courſe; and, I muſt confeſs, that it is ſometimes dif- " ficult to do any thing without doing harm. Bleed- " ing was frequently employed in the cure of this diſ- " eaſe, and, in moſt caſes, it was an uſeful remedy, " though leſs perhaps from its own effects merely, than " from paving the way to other more powerful appli- " cations. It is, however, capable of being eaſily " carried to exceſs; and ought not to be truſted to " wholly for the removing the irritability, and high " degree of excitement, which prevail ſo generally in " the beginning of this diſeaſe. After bleeding, eme- " tics and cathartics are employed very freely. I have " always profeſſed myſelf an enemy to the practice of " giving emetics in the fevers of Jamaica; yet I muſt " confeſs, that antimonials were not only ſafer, but of " more particular ſervice in this, than in any other ſpe- " cies of fever where I have ſeen them tried. Among " the great variety of forms which have been recom- " mended by practitioners, for the purpoſe of empty- " ing the firſt paſſages, I have not found any one an- " ſwer ſo well, as a thin ſolution of the ſal cathartı- " cum, given at different intervals, with a ſmall por- " tion of emetic tartar, and ſometimes with the addi- " tion of laudanum. The operation of this remedy

" was

" was extenſive. It might be ſo managed as to pro-
" mote nauſea, or vomiting, ſweat, or moderate evacu-
" ations downwards; at the ſame time, it proved very
" powerfully ſedative. I may likewiſe add, that I have
" ſometimes found benefit from nitre, camphor, and
" opium, given in pretty large doſes, and accompani-
" ed with plentiful dilution. But though theſe reme-
" dies were often ſerviceable, and contributed, in many
" caſes, to moderate the high degree of irritability;
" yet the chief dependence of the cure was much
" better truſted to cold bathing. After the ſurface of
" the body had become ſufficiently relaxed, by the pre-
" vious uſe of warm bathing and fomentations, the ef-
" fects of cold bathing were wonderful. The exceſ-
" ſive irritability was moderated or removed, and the
" powers of life were invigorated, in a very ſingular
" manner, in conſequence of it."

MOSELY

ON TROPICAL DISEASES.

" It is unneceſſary to fill many pages with a long
" catalogue of preſcriptions and medicines in the treat-
" ment of this fever, for it is compriſed in a few words,
" and almoſt as few medicines; and requires only care
" and attention, that thoſe moments do not ſlip away,
" that the occaſion is forever loſt, when

" Bleeding,	Diaphoretics,
" Purging,	Bliſters, and
" Baths,	Bark,

" ought to have been timely uſed, for the ſalvation of
" the patient's life; and that afterwards they are not
" untimely employed for its deſtruction."

" If

" If a perſon, newly arrived in the Weſt-Indies, has " ſubjected himſelf to any of the cauſes which may " produce this fever, previous to the attack he has ſuf- " ficient warning given him, if he will attend to it, and " time enough, in general, to cure it by anticipation. " For, as ſoon as any heavineſs, or reſtleſſneſs, or laſſi- " tude, or ſtretching and yawning is perceived, he has " reaſon to expect that they are the harbingers of this " tragedy, and he ſhould immediately be blooded, and " take a doſe of ſalts, and dilute plentifully, and keep " himſelf quiet and cool; and after the operation of the " ſalts, he ſhould take ſmall doſes of *James's powder*, " live low, and drink barley-water. After the body " is well evacuated, and cooled, it is always prudent " to take the bark."

" In the firſt ſtage of the fever, when it has made a " regular attack, when theſe precautions have not been " uſed, or when they have failed, and the patient is no " longer able to abſtain from his bed, he ſhould be kept " in a large room, as cool as poſſible, covered lightly " with bed-clothes, with a circulation of air admitted " into the room, but not directly upon or near the bed: " and this muſt be obſerved through the whole of the " diſeaſe."

" Bleeding muſt then be performed, and muſt be re- " peated every ſix or eight hours, or whenever the ex- " acerbations come on, while the heat, fulneſs of " pulſe, and pains continue; and, if theſe ſymptoms be " violent and obſtinate, and do not abate during the " firſt thirty-ſix or forty-eight hours of the fever, " bleeding ſhould be executed *uſque ad animi de-* " *liquium.*"

" The

" The blood taken away in the beginning is very flo-
" rid, and of the arterial blood colour; and the ſurface
" never ſizy, and ſeldom contracted."

" The intention of bleeding can be anſwered only
" by performing it immediately, and in the moſt exten-
" ſive manner, which the high ſtate of inflamma-
" tion, and the rapid progreſs of the diſeaſe, demand.
" Taking away only ſix or eight ounces of blood,
" becauſe the patient may faint, which is a ſymptom
" of the diſeaſe, is doing nothing towards the cure.
" Where bleeding is improper, no blood ſhould be
" taken; where it is proper, that quantity cannot re-
" lieve—and it is loſing that time which can never be
" regained."

" Bleeding, it is evident, muſt not be performed in
" any other ſtage of the diſeaſe than the firſt, or in-
" flammatory ſtage; but this has been injudiciouſly
" done, which has given riſe to the notion, that a pa-
" tient will ſeldom bear more than two bleedings.

" Many practitioners have been deterred from bleed-
" ing their patients from the depreſſion of the pulſe,
" and from the faintneſs which ſometimes accompanies
" the very firſt onſet of this fever; but here the pulſe
" always riſes, and the faintneſs diſappears, as the heart
" is relieved from its oppreſſion by the loſs of blood."

" Faintneſs and depreſſion of the pulſe here are not
" to be conſidered like thoſe circumſtances where putri-
" faction has commenced, or where there has been long
" and fatiguing illneſs: they are ſymptoms here of *ple-*
" *thora*, the reverſe of inanition; and bleeding is ad-
" viſed for ſuch ſyncopes by two of the greateſt phyſi-
" cians the world has produced."

" Nor

" Nor is fainting, during the operation, any reaſon " for not repeating it, in the firſt ſtage of the fever; for " I have often cured it by bleeding only: and it has " frequently happened in the Weſt-Indies, that acci- " dental bleeding from the orifice, when a patient has " fallen aſleep, to far greater quantities than has ever " been directed to be taken away, has carried off the " fever entirely; and the ſurpriſe on diſcovering a pro- " fuſion of blood in the bed, has been changed to joy " for the alteration it has produced in the patient."

" The effects of nature would be oftener ſucceſsful " than they are, were not her powers totally overcome " in hot climates. Bleeding at the noſe, in the firſt " ſtage of this fever, has ſometimes removed it; and it " is as certain a ſolution of this fever, as it is of the " *cauſus* in Europe."

" In the early part of the diſeaſe ſpontaneous hæ- " morrhage is always critical, and ſhould never be ſup- " preſſed; afterwards it is ſymptomatical, and if not " ſtopped, the patient ſoon ſinks under it."

" Eruptions about the lips and noſe, painful biles, or " phlegmons about the body, which always ſuppurate " unkindly, or an abſceſs forming, are alſo critical, and " generally terminate the diſeaſe."

" Sweating, in the firſt ſtage of the diſeaſe, is ſeldom " critical. Whenever ſweats are critical, which may " happen very early in the diſeaſe, if the patient has " been well evacuated, they are accompanied with a " ceſſation of vomiting, and a change in the appearance " of the urine: the ſweating is then to be aſſiduouſly " promoted, and if preceded by a bleeding of the noſe, " it is a complete criſis."

" The

" The ſickneſs of the ſtomach, and diſagreeable taſte " in the mouth, indicate the quality, and not the quantity " of the offending ſecretions. The vomiting is from " irritation in the ſtomach, and not from plenitude; " therefore vomits are never to be given, though " ſtrongly adviſed by Towne: no, not ſo much as warm " water, recommended by Hillary, for fear of exciting " and ſtirring up that terrible operation, which, when " once begun, no art can ſometimes allay."

" When a ſufficient quantity of blood has been taken " away, which is never done, let the patient's habit be " what it may, while the heat, reiterated exacerbations, " flushings in the face, thirſt, pains in the head, and " burning in the eyes remain, the ſtep is to evacuate " the contents of the bowels, and turn the humours " downwards."

" But if large and repeated bleedings, during the two " firſt days, ſhould not remove the thirſt, pains, flush- " ings, and heat in the eyes, and the ſtate of the ſto- " mach ſhould be ſuch as to reject every thing that is " taken, ſo that there is no chance of procuring eva- " cuation by ſtool, the patient ſhould have repeated " purgative glyſters, and be put in a tepid bath."

" The bath ſhould be compoſed of a very weak de- " coction of camomile flowers, in which a little nitre " may be diſſolved, and a little vinegar added."

" This will often remove every ſymptom at once, " and diſpoſe the patient to a *diaphoreſis*, which muſt " be promoted until a ſufficient quantity of ſome pur- " gative medicine can be taken, ſo as to make an effec- " tual operation downwards."

" There is ſeldom a neceſſity to repeat the bath, as " the ſtrictures and tenſion generally yield to the firſt

" immerſion. The patient ſhould not remain long in " the bath, nor ſhould it be deferred till late in the diſ- " eaſe, for it can be of no uſe when the ſtomach is de- " ſtroyed."

" Soft, ſmooth drinks, free from any ſtimulating " tendency, ſuch as barley-water, always anſwer beſt " for common drink, and are no impediment in the way " of medicine."

" Glyſters are to be frequently given in the beginning " of the diſeaſe, particularly where the patient is coſ- " tive, and to precede the uſe of cathartics, and aſſiſt " their operation."

" The purging medicine to be uſed in the yellow fe- " ver, is the *tartarum, vitriolatum chryſtaliſatum*, or " *ſal polychreſtus*, diſſolved in equal parts of *ſimple cin-* " *namon* and *common water*, or in ſimple *cinnamon-* " *water* alone. It muſt be given in ſmall doſes every " hour, until it operates; and the patient is to dilute " copiouſly while it operates, with very weak chicken " broth. The quantity of the ſalt is four drachms, to " ſix or eight ounces of water, (as much as the water " will diſſolve) and the doſe of it may be two table " ſpoonfuls. In defect of this medicine, ſoluble tar- " tar, or ſal catharticus amarus, or manna and cream " of tartar, muſt be uſed. But let me caution practi- " tioners againſt adding tartar emetic, in order to " quicken the operation of their medicines; which, " however uſeful it may be in bilious diſeaſes, may be " fatal in this."

" Purging generally completes the ſuppreſſion of the " fever, and carries off the vomiting; but it muſt be " continued while the ſtools remain bilious, or fœtid, " otherwiſe the fever will riſe, and the vomiting return."

" In

" In caſe the fever ſtill continues, the ſtomach ſet-
" tled, and the bowels well evacuated, recourſe muſt
" be had to ſudorifics: repeated doſes of James's pow-
" der, effervescent draughts, and plentifully diluting
" with barley-water, or balm, or mint-tea, generally
" ſoon remove it."

" An intermiſſion being procured, bark, in ſubſtance,
" is immediately to be given, and repeated every hour,
" in drachm doſes, if the ſtomach will bear it, until
" twelve drachms have been taken; which is generally
" a ſufficient ſecurity againſt the progreſs of the diſeaſe:
" but it muſt ſtill be continued, at longer intervals, for
" many days; interpoſing mild cathartics, ſuch as an
" infuſion of rhubarb and tamarinds, with, or without
" a ſmall quantity of ſal polychreſt, or by keeping the
" body from a coſtive ſtate by glyſters."

" In the ſecond ſtage, or *metaptoſes* of this fever,
" which I believe will ſeldom happen, where the
" preceding directions have been faithfully purſued, we
" muſt draw a diſtinct line, or boundary, in the very
" beginning of it, and put a final period to bleeding.
" In this alarming ſtate, all the ſkill and power of phy-
" ſic muſt be ſummoned up, and quickly too, to oppoſe
" the various breaches which the diſeaſe is now mak-
" ing, for the entrance of death."

" The ſtrength now begins to fail; the pulſe is ſink-
" ing; the ſuffuſion of yellowneſs is perceived in the
" eyes, neck, and breaſt; the vomiting inceſſant, and
" the ſtomach rejects every thing that is ſwallowed.
" A coldneſs here, not ſucceeded by ſweat, or bilious
" diſcharges, is almoſt a certain mortal ſymptom."

" In this ſtate nothing but purging can remove the
" vomiting, and ſave the patient's life. Here the cor-

" ruption

" ruption of the humours begins, and the ſtools are " acrid, corroſive, and fœtid, to an extraordinary " degree."

" The misfortune here is, that the ſtomach, retain- " ing nothing, without great difficulty, oppoſes all our " attempts. The tartarum vitriolatum, or ſal poly- " chreſt, is a nauſeous medicine: but there is no other " proper medicine, of which a ſmall quantity will " purge, which is the objection againſt tamarinds, " cream of tartar, and manna; nor is there any other " that I have ever found equally cooling and attenuat- " ing. It muſt be given; and though part of it will " be returned, yet ſome of it will remain; and by re- " peating a very ſmall quantity every hour, ſtools will, " in time, be procured, and generally urine, plentifully. " If the patient have five or ſix ſtools, the vomiting " will ceaſe. He muſt dilute with weak chicken " broth."

" Glyſters may aſſiſt, with warm fomentations fre- " quently applied to the region of the præcordia, which " ſometimes bring out a crop of acrid eruptions about " the pit of the ſtomach, on which the vomiting gene- " rally ceaſes; but in caſe theſe attempts fail, the pa- " tient ſhould be put into a tepid bath, and have a blif- " ter applied to his back, or to the inſide of his thighs, " or, what is more effectual, to the region of the ſto- " mach; and a diaphoretic treatment adopted, with " *James's powder*, in order to relieve the internal irri- " tation by revulſion, and enable the ſtomach to bear " purgatives, which alone can carry off the offending " humours, and remove that perverſion, as it were, of " the periſtaltic motion, which is the ungovernable " ſymptom, and, by its continuance, the moſt certain- " ly mortal ſymptom of this fever."

" As

" As to what is called fever, there is nothing after " the firſt ſtage of the diſeaſe that deſerves that name. " Therefore, after the firſt ſtage, bark is always to be " given, when the ſtomach will bear it. The worſt " evil that generally attends the giving of bark here a " little too early, is oppreſſion and load at the ſtomach; " which, if glyſters do not remove, the purgative ſolu- " tion, or a watery infuſion of rhubarb, will; or the " uniting ſome purgative medicine with the bark."

" Sometimes, ſoon after the firſt attack of the fever, " an abatement of every ſymptom is obtained; and thoſe " who are not well acquainted with the pulſe, and " the extenſive evacuations this fever demands, con- " clude that a remiſſion, or an intermiſſion, or a ſolu- " tion of the fever is decided. But when this happens " before the third day, a ſtrict attention to the pulſe, " and the excretions, will diſcover the deception, and " ſhew, by their diſagreement with thoſe ſymptoms " which appear favourable, that they appear ſo with- " out a proper cauſe, and cannot be laſting."

" They who unfortunately make any dependence " here, deſiſt from further evacuations, and proceed to " giving bark, and cordial nouriſhment. Every body " about the patient is filled with flattering hopes of his " recovery. But the evacuations have been diſconti- " nued too ſoon, and have not been ſufficient to extin- " guiſh entirely the inflammatory diſpoſition of the diſ- " eaſe; which, now aggravated, breaks out and rages " with redoubled violence, and hurries the patient into " the ſecond ſtage of the diſeaſe, and then ſoon out of " the world."

" A yellow ſuffuſion may be either critical, or ſymp- " tomatical. Critical, as Towne ſuppoſes; but it muſt

" be

" be when there is a tranquil ceſſation, without languor,
" of all the other ſymptoms, with warm perſpiration;
" and ſymptomatical, as Hillary ſuppoſes, when accom-
" panied with laſſitude, nauſea, or vomiting, colliqua-
" tive ſweats, and ſunken pulſe.

" Great diſputes have ariſen in this part of the diſ-
" eaſe, concerning the application of bliſters." Bliſ-
ters, however, according to Doctor Moſely, "are found
" to be a ſafe and powerful remedy. Natives, and
" long reſidents in the Weſt-Indies are ſeldom diſturb-
" ed by inflammatory diſeaſes, and bliſters can ſcarcely
" ever be applied amiſs. They give a ſtimulus to the
" languid veſſels, and form a drain for the acrid ſerum
" of the blood, which often keep up diſorders from de-
" bility, obſtruction, and irritation."

" If bleeding, purging, baths, and diaphoretics, do
" not remove the fever in its firſt ſtage:

" If purging, baths, diaphoretics, and bliſters, do not
" remove it in the ſecond ſtage:

" If the vomiting cannot be ſuppreſſed, and the bark
" retained:

" The laſt ſtage of the diſeaſe appears with its dire-
" ful vomiting; which at firſt has generally the ap-
" pearance of the grounds of coffee; then that of a ſlate
" colour, and then dark, thick, and grumous. The in-
" terior ſurfaces of the body are oozing out blood into
" their cavities. Every excretion is corrupted blood."

" I have ſeen people recover after the vomiting has
" reſembled coffee grounds, when any purgative medi-
" cine, united with a decoction of bark, could be made
" to paſs downwards."

" I ſhould not have thought it neceſſary to mention
" even the name of *opium* in this fever, had not Hillary
" adviſed

" adviſed it, and others raſhly followed his advice in
" giving it, to check the vomiting in the beginning of
" this diſeaſe."

" In a fever ſo highly inflammatory, with the ſto-
" mach in a conſtant ſtate of inflammation, and the
" contents of the whole alimentary canal ſo hot and
" acrid, it muſt be, what I believe it often has been, a
" fatal medicine."

" In regard to regimen, during the firſt three or four
" days, thin, ſoft, cooling drink, emulſion, and chicken
" broth, beſides the medicines, will be as much as the
" ſtomach can ſuſtain, even were any thing elſe neceſ-
" ſary. After the criſis, or after the firſt ſtage of the
" diſeaſe, panado, ſago, and gruel, are the moſt proper
" articles of nouriſhment, with the addition of a ſpoon-
" ful of Madeira wine, where the patient is weak,
" languid, and exhauſted. Wine cheriſhes the ſto-
" mach, and acts as a cordial, mixed with theſe nou-
" riſhments; but if it be given in any other way, it af-
" fects the head, and heats the patient. Wine, where
" it is neceſſary, ſhould be uſed in the ſame manner
" in all fevers."

THE CURE OF THE REMITTENT FEVER.

By JOHN HUNTER, M. D.*

" In treating of the cure of the remittent fever, I
" ſhall give an account of the remedies, in the order in
" which they were adminiſtered when the fever had
" its moſt uſual appearance; and ſhall afterwards enu-
" merate

* Observations on the Diseases of the Army in Jamaica.

" merate the means that were found moſt ſucceſsful
" in removing, or palliating particular ſymptoms, &c.

" No diſeaſe requires more ſpeedy aſſiſtance; for the
" efficacy of the medicines employed depends, in a
" great meaſure, on their being given early."

" If I ſee a patient during the firſt fit, I direct an
" ounce of Glauber's ſalt, or the ſame quantity of the
" bitter purging ſalt, to be diſſolved in half a pint of
" water, to which two drops of the oil of peppermint
" being added, four table ſpoonfuls of the ſolution are
" given every half hour, till it operates, or be all taken.
" As there is generally much ſickneſs at the ſtomach,
" it is given in ſmall doſes, leſt it ſhould excite vomit-
" ing. The eſſential oil covers the taſte of the ſalt,
" and renders it leſs offenſive to the ſtomach."

" It is probably of no great conſequence, what kind
" of purgative medicine is given, provided it operates
" effectually, and without violence."

" After a few ſtools having been procured, the patient
" generally feels himſelf much eaſier, and a remiſſion
" often enſues. This is to be carefully watched for, and
" immediate advantage is to be taken of it, for adminiſ-
" tering the Peruvian bark. The common doſe of this
" medicine is a drachm, which may be repeated every
" ſecond hour; and as a general rule in giving it, this
" is perhaps the beſt; but both the quantity and inter-
" val muſt often be varied, according to circumſtances.
" Where the preceding fit has been uncommonly ſe-
" vere, and there is reaſon to fear that the ſucceeding
" one will be ſtill more violent, and where a long re-
" miſſion cannot be depended upon, the doſe may be in-
" creaſed to two drachms, which may be given every
" hour. But few ſtomachs will bear ſo much, and

" ſometimes

" ſometimes the bark cannot be given at all, in ſub-
" ſtance. In ſuch a caſe recourſe muſt be had to a
" decoction, or an infuſion."

" In ſevere attacks of the fever, in which it is abſo-
" lutely neceſſary to watch for the remiſſion, in order
" to make the beſt advantage of it, whenever the pulſe
" becomes a little ſlower, and the heat begins to abate,
" a doſe or two of the infuſion may be given, and the
" powder added afterwards, as ſoon as the ſtomach
" will bear it. This I found the moſt certain way of
" moderating or preventing the next paroxyſm."

" The vehicle in which the bark is given, muſt, in
" many caſes, be ſuited to the patient's ſtomach. It
" will ſometimes ſit eaſy on the ſtomach, when mixed
" with coffee, with wine and water, or with wine
" alone, if the remiſſion be conſiderable; in ſome caſes,
" it anſwers the ſame purpoſe to mix it with milk, or
" with a weak infuſion of camomile flowers. By
" theſe expedients the ſtomach is reconciled to the me-
" dicine, is enabled to receive a larger quantity of it,
" and to retain it better."

" It will ſometimes happen that the bark purges
" ſtrongly, and paſſes through the body almoſt un-
" changed. This is not an unfavourable ſymptom,
" and the remedy is eaſy, for three or four drops of the
" *tinct. thebaic.* added to each doſe, ſoon put a ſtop
" to the purging."

" When the method of cure laid down above is
" carefully put in practice from the beginning, it will,
" in many caſes, prevent a return of the fever; in ge-
" neral, however, a ſufficient quantity of bark cannot
" be given on the firſt remiſſion, nor is there time for it

" to produce its effects upon the body, ſo as to prevent " a ſecond paroxyſm."

" The heat, reſtleſſneſs, anxiety, and indeed all the " ſymptoms uſually accompanying the ſecond parox- " yſm, are more violent than in the firſt, if nothing has " been done in the remiſſion to ſtop the progreſs of the " fever; but if the length of the remiſſion, and the " ſtate of the ſtomach have admitted of the liberal uſe " of the bark, it has a conſiderable effect upon the en- " ſuing fit. The ſymptoms run high, but the ſtrength " of the patient appears more equal to the ſtruggle; " the paroxyſm is ſharp, but it is of ſhort duration, " and the remiſſion that follows is of the completeſt " kind."

" The medicine that I have found moſt conſidera- " bly to relieve the ſymptoms during the paroxyſms, and " promote a remiſſion, is James's powder. It is given " in ſmall doſes, ſeldom exceeding five grains, and is " repeated every three or four hours. If the ſtomach " be in an irritable ſtate, the doſe is often not larger " than half the quantity juſt mentioned; for, as has " been obſerved before, no ſymptom of the diſeaſe is " more troubleſome or dangerous than vomiting; in " the cure, therefore, care muſt be taken to avoid " every thing that might induce or aggravate any " tendency that way. The moſt ſalutary operation " of James's powder is, either to excite a ſweat, or " gently open the body. There is ſeldom occaſion " to give James's powder in the firſt paroxyſm, " that being occupied by the purgative medicine; " but if the fit continues as long as forty-eight " hours, and the purge has been given and produced

" the

" the full effect, and ſtill there is no remiſſion, James's
" powder may be given in the manner juſt mention-
" ed, and by exciting a ſweat, or further gently open-
" ing the body, it promotes a remiſſion of the fever."

" In ſubſequent attacks, the ſame courſe is to be
" followed; that is, ſmall doſes of James's powder are
" to be given during the paroxyſm, and the bark in
" remiſſions."

" If James's powder does not keep the body open,
" which it ſeldom fails to do, laxative glyſters are of
" uſe; for it is to be obſerved, that one or two ſtools
" in the twenty-four hours, greatly relieve the ſick,
" and promote the good effects of the bark. This
" is particularly the caſe in the fevers ſubſequent to
" the rains in September and October, which are of
" the worſt kind. In ſuch it is frequently advanta-
" geous to join four or five grains of rhubarb, to each
" doſe of the bark, in order to procure two or three
" motions in a day."

" I have had occaſion to mention, that no ſymp-
" toms are more dangerous than violent retching and
" vomiting, and nothing can be more pernicious than
" the uſe of emetics in ſuch circumſtances. If there
" be ſickneſs and vomiting at the beginning of the
" diſeaſe, camomile-tea, or warm water, are ſufficient
" to cleanſe the ſtomach. If the vomiting or retch-
" ing ſtill continues after making uſe of them, which
" they will often do, and harraſs the ſick, even dur-
" ing a remiſſion of the other ſymptoms, ſaline
" draughts, in a ſtate of effervescence, repeated every
" hour, or oftener, will frequently allay this diſtreſſing
" ſymptom. The ſtomach is alſo relieved by open-
" ing the body, which further tends greatly to check

" the

" the vomiting; but as cathartic medicines would be " immediately thrown up, purgative glyſters are the " only means that can be employed for that purpoſe, " and it is neceſſary ſometimes to repeat them ſeveral " times. In this way the vomiting is often quieted, and " the ſtomach enabled to retain the bark."

" It will ſometimes, however, happen, in the worſt " fevers, that the retchings are not abated by the effer- " veſcing draughts, which are themſelves thrown up. " In ſuch caſes I have had recourſe to opiates, and " generally with ſucceſs. From fifteen to twenty " drops of the *tinct. thebaic.* may be added to an " effervеſcing draught, or given in a little Briſtol " water, and repeated in two or three hours, accord- " ing to the exigency of the ſymptoms."

" The vomiting being overcome, the bark muſt be " given with diligence, yet with caution at firſt, by be- " ginning with the infuſion, or decoction, and adding " the ſubſtance as the ſtomach will bear it."

" During the acceſſion of fever there is commonly " more or leſs of head-ach, which ſometimes becomes " extremely violent, and greatly diſtreſſes the patient. " A bliſter, applied between the ſhoulders, ſeldom or " ever fails either to relieve, or entirely remove this " ſymptom."

" In the very low ſtate that was mentioned ſome- " times to ſucceed violent paroxyſms, eſpecially in " thoſe fevers that were attended with yellowneſs of " the ſkin, nothing was ſo uſeful as cordials; for, " though the bark was not entirely laid aſide, yet the " quantity the ſtomach would bear, in any form, was " ſo ſmall that little could be expected from it. Wine " and nouriſhment were the beſt cordials."

The

The nourifhment which Doctor Hunter recommends, conſifts of chicken broth, panado, ſago, ſalop, thin gruels, and tea, in which bread has been ſoaked. " To all theſe, except the broth and tea, wine may be " added, with ſugar and nutmeg, or any other ſpice " that is more agreeable. It is of the utmoſt conſe- " quence in giving both nouriſhment and wine, that it " be repeated often, and that only a little be ſwallowed " at a time; for the ſtomach is eaſily overloaded, and " provoked to vomit."

" When the ſick are greatly reduced, after two or " more paroxyſms of fever, wine and nouriſhment be- " come more eſſential than medicine."

" In treating the ſick, I have ſuppoſed the method " of cure to be put in practice from the beginning of " the diſeaſe; but this cannot always be the caſe, as, " for various and obvious reaſons, a firſt, or even a " ſecond paroxyſm may have paſſed before any thing " is done towards the cure. In this ſituation, if there " be a remiſſion, and the preceding fit has been violent, " and there is reaſon to believe that the ſucceeding one " will be more ſo, it is not adviſable to loſe three or " four hours in giving an opening medicine, which " muſt therefore be omitted, and the bark adminiſtered " directly. In order, however, to prevent any ſenſe " of fulneſs, either in the ſtomach or bowels, which " might ariſe from that medicine, and likewiſe to pro- " mote the operation of it upon the conſtitution, ſome " opening medicine is joined to it, ſo as to procure " three or four ſtools in the twenty-four hours. With " this view, four or five grains of rhubarb may be ad- " ded to each doſe of the bark."

" If

" If a delirium, with a conſiderable degree of wild-
" neſs and agitation, which ſometimes prevail during
" the paroxyſm, continue after the uſual evacuations,
" an opiate, given in a moderate doſe, and repeated
" after two or three hours, will, in ſome caſes, have a
" good effect in quieting it, and thereby promote a re-
" miſſion of the fever."

Doctor Hunter, in his obſervations on the effect of remedies, remarks; " Blood-letting well deſerves to be
" conſidered. In ſuch caſes as ſeemed moſt to require
" it, for example, where the patient was young, ſtrong,
" of a full habit, and lately arrived from Europe; where
" the pulſe was quick and full, the face flushed with
" great heat and head-ach, and all theſe at the begin-
" ning of the fever, bleeding did no good. It neither
" diminiſhed the ſymptoms for the time, nor procured
" a ſpeedier remiſſion. I cannot ſay, however, that it
" did that miſchief that has been imputed to it by ſome;
" for, provided it were a moderate quantity, it could
" hardly be ſaid to produce any ill conſequences. But
" if it were copious, or repeated a ſecond time, it was
" always hurtful, and rendered the recovery of the pa-
" tient extremely ſlow, if not attended with worſe con-
" ſequences. This effect it had in the inflammations
" of the lungs that ſometimes happened, in which it
" was neceſſary to bleed freely. It will not be conſi-
" dered as a recommendation of bleeding to ſay, that
" there were ſome caſes in which it did little or no
" harm, if uſed moderately; yet ſuch is the concluſion,
" to which the obſervations I had an opportunity of
" making lead me."

IT

IT will be recollected that I ſet out with a reſolution, from which I am unwilling to depart, to make no comments on the doctrines, or method of cure, of thoſe authors who have written largely and learnedly on the bilious remittent fever; but I cannot forbear making a remark or two on the practice of adminiſtering of bark. My own experience authorizes me to ſay, as in page 105, that I never knew it *ſafe or uſeful, until an entire ſolution of the diſeaſe took place*; or at leaſt when no ſymptoms of importance remained, except the *conſequence* of ſevere fever, viz. *mere debility*. That the bark is too indiſcriminately given, and without due regard to the condition of the firſt paſſages, cannot have eſcaped the notice of the moſt inattentive; and to me it appears evident, that in thoſe caſes where it is given in the early ſtages of the diſeaſe, unleſs it acts as a gentle purgative, it ſeldom fails to do miſchief, particularly if the pain be conſiderable in the head, or any tenſion or ſenſe of fulneſs remains in either of the larger cavities. To *throw in the bark*, as the phraſe is, after the firſt obſcure remiſſions in fevers of the bilious ſort, *particularly in theſe northern climates*, is a practice, in my judgment, if not calculated to endanger the life of the patient, at leaſt ſuch as to protract, in many inſtances, the continuance of the moſt formidable ſymptoms. This fact is correſpondent with the obſervations and experience of ſeveral practitioners of medicine in this city, who ſtand deſervedly high in their profeſſion. The celebrated traveller Bruce, who was alſo a phyſician, informs us, that in Maſuah, on the coaſt of the Red Sea, a certain ſpecies of fever prevails, which, in that country, is called *nedad*, and which, when it terminates fatally, is generally on the third day.

In

In this fever there is no remedy ſo ſovereign as the bark; but he poſitively aſſerts that it does not ſucceed unleſs *it acts as a purgative.*

" The ſecond or third doſe of the bark, (ſays he) if " any quantity is ſwallowed, never fails to purge; and " if this evacuation is copious, the patient rarely dies, " but on the contrary, his recovery is generally " rapid."

He further adds, " bark, I have been told by the Spa- " niards, who have been in South-America, purges al- " ways when taken in their fevers. A different cli- " mate, different regimen and habit of body, or exer- " ciſe, may ſurely ſo far alter the operation of a drug, " as to make it have a different effect in Africa to " what it has in Europe. Be that as it may, ſtill I ſay " bark is a purgative, when it is ſucceſsful in this " fever," &c.

ERRATA.

Page 29, line 3, for " did not contract" read *did contract.*

Page 43, between the word " thought," at the end of the third line, and " that," at the beginning of the fourth, insert the word *proper.*

Page 55, line 4, for " firſt" read *fact.*

Page 56, line 6, for " unſual" read *usual.*

Page 57, line 9, for " would" read *could.*

Page 102, line 11, for " poracious" read *porracious.*

Page 115, line 6, for " cauſes" read *cases.*

Page 124, line 6, for " that there was a" read *one.*

Page 129, line 10, between the words " required more" insert *to be.*

Page 130, laſt line but one, for " There" read *These.*

Page 133, line 6, for " of" read *on.*

Page 144, line 11, for " effects" read *efforts.*

FINIS.