

**Observations on the nature and treatment of the variolous abscess, with remarks on the modern practice of inoculation, and a review of the principal writers on that important subject ... in a letter to Dr. Buchan, author of Domestic Medicine / by Peter Clare.**

### **Contributors**

Clare, Peter, 1738-1786.  
Royal College of Physicians of Edinburgh

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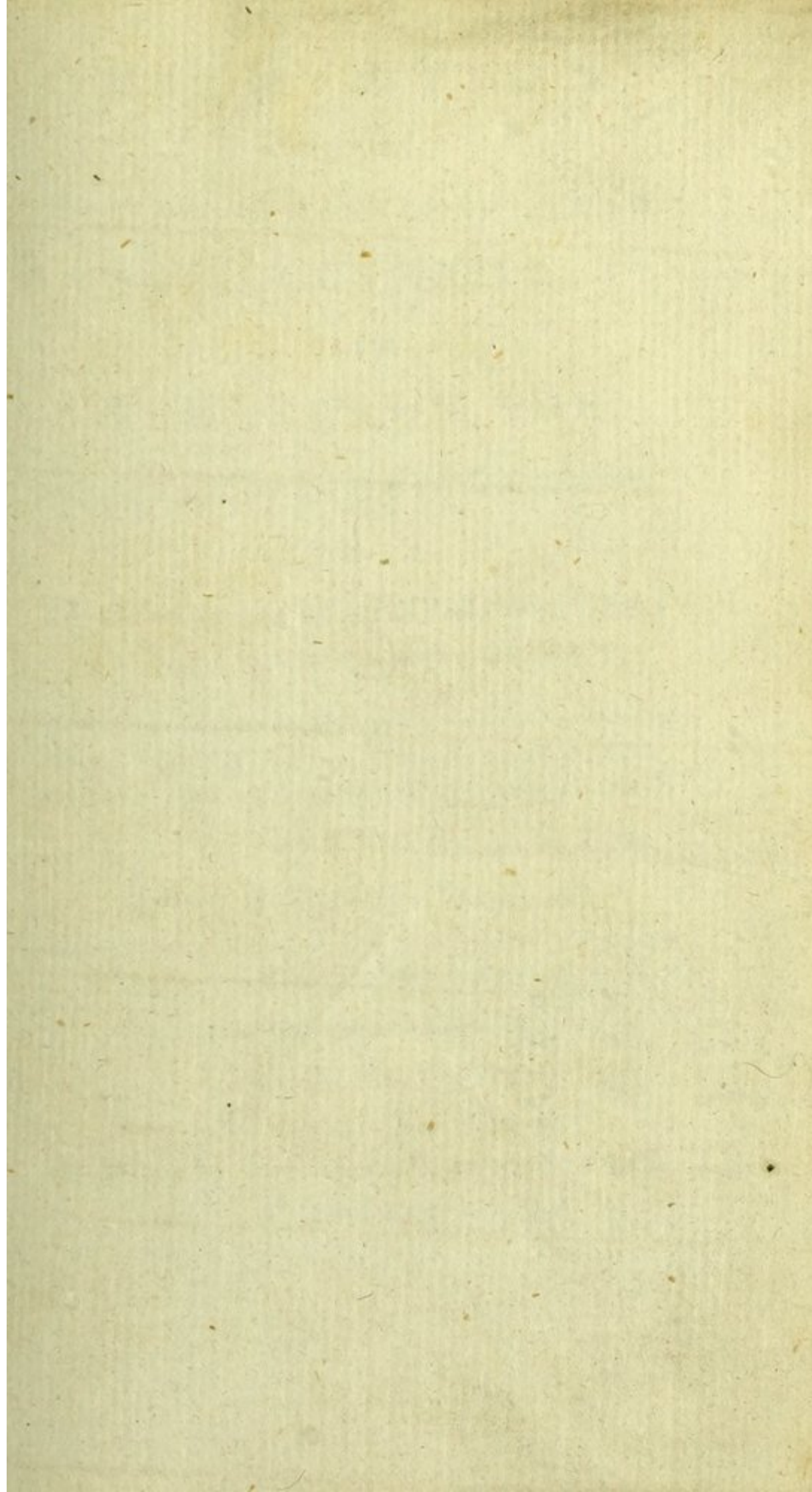
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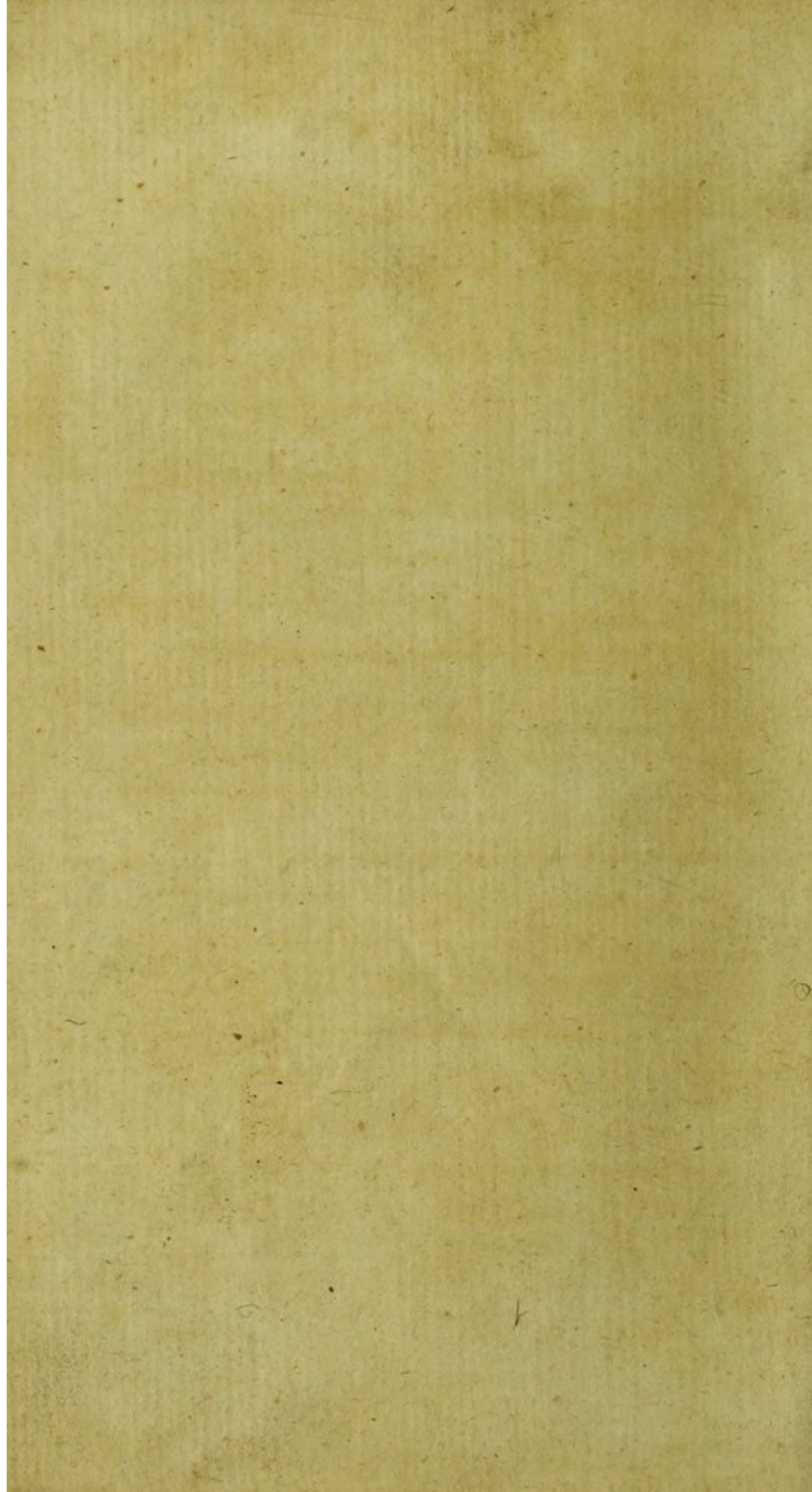
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London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
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Vol. 19  
OBSERVATIONS

ON THE  
NATURE and TREATMENT of the  
VARIOLOUS ABSCESS,

WITH  
REMARKS ON THE  
MODERN PRACTICE of *Inoculation*,

AND A  
REVIEW OF THE PRINCIPAL WRITERS  
ON THAT IMPORTANT SUBJECT.

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By PETER CLARE, SURGEON.

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IN A LETTER TO DR. BUCHAN,  
Author of Domestic Medicine.

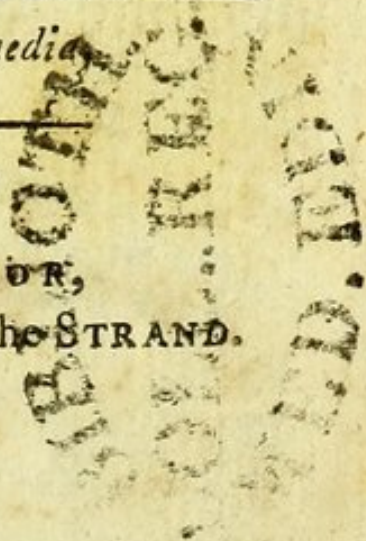
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*Graviora morbis patimur remedia*

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L O N D O N

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A LETTER, &c.

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S I R,

HAVING read with particular pleasure and satisfaction, your book intitl'd *Domestic Medicine*, in which, amongst other diseases, you have treated of the Small Pox by Inoculation, and also in the natural way; I take the liberty of communicating to you by letter, my sentiments on this important subject.

B

The



The world holds you in great estimation for the many humane and judicious observations with which your work abounds, and I am happy to give every testimony of my regard for that merit, which, whilst I despair of attaining, I cannot but acknowledge and admire.

You justly observe, that Inoculation cannot become materially beneficial till it is rendered universal, alledging that as many die annually of the natural Small Pox now, as before this practice was introduced; a melancholy circumstance! and which demands the attention of every thinking man in this kingdom.

As the state will derive the greatest advantages from Inoculation, it ought from true policy ever to promote and encourage that practice.

For



For this laudable purpose, premiums and honorary distinctions should be conferred on all those who in an eminent degree contribute to its advancement. Those gentlemen of the profession who inoculate the greatest numbers, particularly of the poor, in a given time, should be rewarded for their humane efforts to extend the use of this happy discovery, by which you assert they may save more lives than by all their other endeavours.

In the Roman state, the man who preserved the life of *one* of his fellow citizens, was entitled to a civic crown. Your instructions in the Small Pox alone, if duly attended to, will save thousands, a circumstance which must afford a heart-felt satisfaction far beyond the possession of any honorary reward.



“ One self-approving hour whole years  
 “ out-weighs,  
 “ Of stupid starers, and of loud huzzas;  
 “ All fame is foreign, but of true desert,  
 “ Plays round the head, but comes not to  
 “ the heart.”

These lines, Sir, were written  
 by Mr. *Pope*, when he was con-  
 templating—not the characters of  
 heroes, who meditate the destruc-  
 tion of the human species, but of  
 public benefactors, men whose views  
 like your's, were directed to the  
 preservation and happiness of their  
 fellow-citizens. *Non tu corpus eras  
 sine pectore.*

In an Essay published not long  
 since, I observed, that every abs-  
 cess which is the crisis of a fever  
 arising from an internal disorder,  
 ought by all means to be encour-  
 aged.



raged \*. This doctrine is agreeable to the fundamental principles of our art, and I am much inclined to think the variolous abscess ought to be treated in the same manner with other impostumations †. General assertions, it may be said, should be received with some allowance and exceptions, and that we should hear what may be urged on both sides of every question, before we attempt to form any determinate judgement.

\* Dr. *Sydenham*, in his chapter on acute diseases, says, "Reason dictates, if I judge right, that a disease is nothing else but Nature's endeavour to thrust forth with all her might, the morbid matter, for the health of the patient."

† Dr. *Mead* says, "This observation holds good in all kind of abscesses, that the more the pustules tend to suppuration, the greater are the hopes of recovery, and therefore when that does not go on according to our wishes, all possible means are to be used to throw the morbid humour on the skin."

MEAD on the Small Pox.



Many practitioners assert, that the variolous fever is a fever *sui generis*, and ought to be treated in a peculiar manner; that it should be attacked with repellents, and every attempt should be made by evacuations, to diminish and subdue its influence. This doctrine of revulsion, when reduced to practice, is deemed very pernicious, and I believe it will be found much safer in general to assist, than to retard the efforts of the constitution. *Ab extrâ intûs redire malum est.*

There is a considerable difference in opinion betwixt \* Baron *Dimsdale* and you, on the subject of preparation and the subsequent treatment of this distemper. As my sentiments happen to correspond in general with your's, I have selected

\* On Inoculation.



many passages from your book in support of them. The Baron writes in favour of a different practice, and his works being much read and esteemed, I have thought fit to make several quotations from them also, that a true and candid judgment may be formed.

Freedom of discussion is very allowable, when it does not arise from malicious or envious motives, but from a regard for truth. The opinions and practice, not the man, are the proper objects of literary investigation.

I shall now proceed to make some cursory observations on the process preparatory to Inoculation.

When the practice of Inoculation was first introduced into this kingdom, preparation was never omitted, and it seemed only a proper and ne-



cessary caution on entering upon a new and singular operation. Preparation being made, the mildness of the disease which followed, was supposed by many to be not less owing to the medicines than to the mode of introducing the variolous poison into the system. Some years elapsed before any one ventured to inoculate without this previous ceremony, and when it began to be omitted (whether by accident or design, is immaterial) the practice was found to be quite as successful as before. People set themselves to consider what was meant by preparation, and they doubted if it could be necessary to prepare those who were in perfect health \*. In the

\* The worst consequences have been known to proceed from the attempts of people to make themselves better than well; we therefore should not presumptuously trifle with a good constitution.

next



next place they reflected, that those who were materially disordered, could not be cured and made fit subjects for Inoculation in so short a time as that usually allotted for this purpose. It was also remarked, that persons who contracted the Small Pox whilst they had other diseases upon them, underwent the distemper as well as if they had been free from every sort of complaint; which circumstance greatly diminished the importance of the preparatory process, and brought it at length into disrepute. The practice, at this time, was principally in the hands of the surgeons, who thought little or no preparation necessary, or medicine, during the disease †.

You,

† Dr. *Mead* says. it is proper to mention, that this artificial disease is usually so mild, that



You, Sir, assert, that “ They know very little of the matter who impute the success of modern Inoculators to any superior skill, either in preparing the patient, or communicating the disease. Some of them indeed, from a sordid desire of engrossing the whole practice to themselves, pretend to have extraordinary secrets or nostrums \*, for that it scarce requires any help from medicines ; an opinion which is very generally credited at this day.

\* Dr. Black says, in his *Observations Medical and Political*, “ Some prescribe elaborate and complicated preparation by diet, mercurials and purges, previous to inserting the variolous infection. Dr. Gatti, who wrote a sensible treatise on this subject remarks, and I believe justly, that the more simplicity is used in transferring the disease artificially, the practice and public benefit are likely to be more universal. Several of our European Inoculators often, with officious industry, exercise a superfluous preparatory parade of professional and scientific craft: young children especially, may dispense with many of these redundant ceremonies.”

preparing



preparing persons for Inoculation, which never fail of success. But this is only a pretence to blind the ignorant and inattentive. Common sense and prudence alone are sufficient both in the choice of the subject and management of the operation. Whoever is possessed of these, may perform this office for his children whenever he pleases, provided they be in a good state of health."

The Baron, on the other hand, " recommends to his patients who are in high health, to abstain from all animal food, including broths, also butter and cheese, and from all fermented liquors, excepting small beer, which is allowed sparingly, and from all spices, and whatever possesses a manifest heating quality. The diet is to consist of pudding, gruel, sago, milk, rice milk, fruit  
pies,



pies, greens, roots, and vegetables of all the kinds in season, prepared or raw. Eggs, though not to be eaten alone, are allowed in puddings, and butter in pie crust, and patients are advised to be careful not to over-load their stomachs, even with this kind of food."

After proceeding in this manner about 9 or 10 days before the operation, they are directed to take "three doses of the following powder, either made into pills, or mixed with a little syrup or jelly, at bed-time; and a dose of *Glauber's* salts dissolved in thin water gruel, each succeeding morning. The powder is composed of *eight grains* of calomel, the same quantity of the compound powder of crabs claws, and one-eighth part of a grain of emetic tartar."

Baron



The Baron *notwithstanding* asserts, p. 82, “ That alteration which appears most likely to be made, is in shortening the time of preparation; for as I have often been obliged to inoculate without any, *and have always had the same success*, it has inclined me to think, that much, if not the whole of this process may be dispensed with, except in very full habits, or where other particular circumstances may require it. But in all these cases from the insertion of the matter to the time of the eruptive complaints, the patients have been kept to a close observance of diet, and the use of the preparatory medicines, proportioned as well as I could to their conditions, for I durst not by way of experiment dispense with the use of

cibals
C
measures



measures that had been hitherto so successful."

You say, "There is reason to fear Inoculation will be far from being general as long as the practice continues in the hands of the faculty. Your observation may be just, yet I cannot help thinking the faculty ought to have a preference in this business. Suppose, Sir, apothecaries were paid properly for their visits, (like the rest of the profession) instead of their medicines, that there might be no inducement to give more than was really necessary for their patients, would not this obviate every objection?"

The *Circassian* mothers, Dr. Mead observes, were used to inoculate their own children. In the East-Indies



Indies the whole business is conducted by the Bramins, and with the greatest success \*.

Persons are daily inoculated in every part of this kingdom, without any preparation. A very eminent practitioner has frequently assured me, that he never knew Inoculation do otherwise than well, except where the patients had been previously lowered, or during the distemper, the ill consequences of which I have frequently seen and lamented. Four children were inoculated formerly at my house, and were under the inspection of an eminent physician; they were treated in this

\* They order their patients to abstain for one month before Inoculation, from fish, milk, and a kind of butter made of buffalo's milk: this is the invariable and only preparatory regimen.



manner, and all had a narrow escape †.

I suffered much uneasiness on account of the method in which they were treated, and I find I am not singular in my objections to this practice, for you say, “you have known children to appease the anxiety of their parents, bled, blistered and purged, during the fever which preceded the eruption of the Small Pox, to such a degree, that nature was not only disturbed in her operation, but rendered unable to support the pustules after they were

† The spots under the skin, at first were few in number, the contagion spreading from cell to cell, till they became infinite, yet made no approach to the surface. I think that if the fever had been higher, a few pustules would have been thrown out at once upon the skin, and the patients greatly relieved.

out;



out; so that the patient, exhausted by mere evacuations, sunk under the disease."

Baron Dimisdale says, page 33, "The feverish symptoms are for the most part so mild as seldom to require any medicinal assistance, except a repetition of the same medicine that was directed on the second night ‡ after the operation; and on the following morning this laxative draught. Infusion of senna two ounces, manna half an ounce, tincture of jalap two drams. These are given as soon as the eruptive symptoms are perceivable, if they seem to indicate any uncommon degree of vehemence."

I have known such a draught give more than a dozen stools, and weaken

‡ Calomel and compound powder of crabs claws, of each three grains, emetic tartar  $\frac{1}{10}$  of a grain.



the patient exceedingly, and being continued, reduce him to an hectic state.

Many families, I am informed, to avoid the expence of employing the profession, have followed your advice, and inoculated their children with the greatest success. There certainly is not a duty more incumbent on them than this which so immediately concerns the preservation of their offspring. They do not scruple to give medicines on several other occasions that are more serious; they administer remedies for the disorders of the stomach and bowels, and other complaints to which children are continually subject; why then should they not *inoculate* them also? I doubt not they will adopt the practice



tice when they are convinced of what every professional man is well persuaded of, that there is no hazard in it. The numbers who die under Inoculation, hardly deserve to be named. In the natural way, the calculation is that one in four or five generally dies, but by Inoculation not one of a thousand.

The Baron remarks that scarce two in three of all that are born, live to be two years old. I know not if this calculation is accurate; however, if just, it is a melancholy circumstance; and how many children may we suppose to die of the Small Pox in the natural way, before they arrive at this age? No doubt many, whose deaths might have been prevented by Inoculation. As long as this operation is deferred,



the anxiety of parents is beyond what any but parents can conceive; and children who live in large cities, where there is great danger from contagion, are on that account often deprived of the benefit of the air, so necessary to health.

The Baron observes “ that convulsive paroxysms often accompany the variolous eruptive fever in children; and though generally looked upon in no unfavourable light, as often preceeding a distinct kind of Small Pox, yet they are at all times attended with some degree of danger; nay some, it is well known, have expired under them; while others who have struggled through with great difficulty, have been so debilitated, and their faculties so impaired, that the effects have been perceptible



perceptible during the remaining part of their lives."

I have seen one instance where the ill effects of convulsions which happened at the time of Inoculation continued thro' life, but happily, not one where a child died in them. This event will sometimes happen during Inoculation (as it does frequently without it) from worms or acidities in the stomach and first passages. I do not think the apprehensions of convulsions, which are in these cases sometimes so slight as hardly to be perceived, ought to operate against the practice at this age; especially as they attack children of all ages, and are more strong and dangerous afterwards than at the breast\*.

But,

\* Dr. *Mead* in his chapter on the accidents attending the Small Pox, says, " Sometimes  
the



But, says the Baron, “ even admitting the eruption to be favourable and not attended with any such alarming (symptoms as convulsions) yet, should a larger number of pustules than usual appear, or any untoward symptom happen, and require medical help, the unhappy sufferer is much too young to be prevailed on to take unpalatable medicines, or submit to other necessary measures by persuasions, menaces or bribes.” Surely, Sir, there is no medicine so good as milk for children at this tender age.

I shall now consider the opinion of Baron Dimisdale as to the proper age for Inoculation.

the patient is seized with convulsions just before the eruption. But this symptom is more terrifying than dangerous, and, in children particularly, those convulsions which frequently come on before the distemper appears, are generally rather a good than a bad sign.

“ In



“ In regard to the age, says the Baron, where it is left to my choice I decline inoculating children under two years old. I know the common practice is against me in this particular, but my reasons for rejecting such, are founded on observation and experience. I have indeed lately inoculated many under this age, at the pressing intreaties of their parents, *and they have all done well.* But it must be considered, that young children are exposed to all the hazards of dentition, fevers, fluxes, convulsions, and other accidents, sufficiently difficult in themselves to manage in such tender subjects, in-  
 somuch that scarce two in three of all that are born, live to be two years old; as is demonstrable from the bills of mortality.”

The



The Baron here confesses the common practice is against him, as to inoculating children under two years of age, yet he says that he has inoculated several under that age, *and they have all done well.*" Surely, this is great encouragement to adopt that method, especially as it meets with general approbation, and the Dr. confesses, that his sentiments on this subject, militate against the common practice \*.

I have seen great numbers of children inoculated at the breast,

\* Dr. *Mackenzie* says, "The most favourable period for Inoculation, seems to be that which precedes the breeding of teeth in children, while the several complaints attending that event are yet unfelt, and the humours are so mild, that an inflammatory distemper can, at that time, scarce rise to any great degree of violence."

*Mackenzie's History of Health.*

without



without any trouble, and with the happiest success; and I am, and always have been, an advocate for that practice which is attended with such striking advantages. I have known several medical gentlemen who once thought otherwise, but whom time, experience and reflection have brought to favour the most early Inoculation. You observe, that the most proper age is betwixt three and five years. “Many,” you say, “approve of inoculating at the breast, and where no circumstance forbids this practice, that you have no objection to it.”

Neither the Baron nor you, Sir, appear to be disinclined to inoculating at the breast, and I am apt to believe that you will both hereafter see reason to approve of a practice, the advantages of which are self-evident,



evident, and the disadvantages only ideal and presumptive.—How cautious ought we to be, with respect to administering purgatives to infants in particular, since they sometimes excite convulsions, and cause a retrocession.

Common abscesses are usually seated in the cellular substance betwixt the muscles and the skin; the variolous abscess is in the cellular substance under the cuticle, and upon the skin or *cutis vera*, as it is called. This appears to be the case from the scars left by the Small Pox, and which proceed from the confined *virus* eroding the subjacent skin. The deeper the seat of an abscess, the longer it is in coming to suppuration, unless the matter happens to be deposited under a tendon, ligament, or a tendinous expansion.

In



In this case, though it is at no great distance from the surface, yet being powerfully restrained and confined, the matter is often a considerable time before it reaches the skin to make its exit there.

An abscess under the cuticle, *cæteris paribus*, will be sooner protruded than one in the adipose membrane. The variolous and other abscesses are usually preceded by shiverings, which seem to be the efforts of disease to produce a crisis.

There is a very great similarity in many respects betwixt the pustules in the Small Pox and other abscesses. They are accompanied with rigors, they tend alike to suppuration or gangrene. They are also treated in the same manner. The pustules in the limbs are fomented by bathing in warm water. When they are



perfectly ripe, it is recommended by the most celebrated writers to draw them to a point by cerate, and afterwards to discharge the contents by puncture or incision. Dr. *Brooke*, \* *Tiffot*, and *Holwel* in his account of Inoculation by the Bra-  
mins, urge the propriety of this practice on your principle, *viz.* to prevent resorption of the matter, and the secondary fever.

Dr. *Tiffot* observes “ That in the Small Pox,” whenever there is a very considerable eruption, the fever is heightened at the time of suppuration, which is not to be wondered at, for one single boil excites a fever: how is it possible then that some hundreds, nay some thou-

\* *Practice of Physic—Tiffot’s Advice to the People.*



sands of these little abscesses should not excite one?"

I apprehend, the fever is the disease, and the suppuration and expulsion the crisis which nature points out. The medical treatment will certainly be very different, according as one or the other of these ideas is adopted. The various fever is thought to constitute the essence of the Small Pox, that alone, without any eruption, being deemed in general, a sufficient security against the disorder.

Many attempts are made to mitigate this fever, and I believe these are frequently productive of mischief. "The Eastern practitioners, says Mr. *Holwel*, with great modesty arraign the European practice of phlebotomy, and cathartics in any stage of the Small Pox, but



more particularly when designed to prevent or mitigate the second fever; alledging, that the *first* weakens the natural powers, and that the *latter* counteracts the regular course of *nature*, which in this disease, invariably tends to throw out the offending cause *upon the skin*; that she often proves unequal to the entire expulsion of the enemy, in which case her wise purposes are to be assisted by art, and in that track, which she herself points out, and not by a diversion of the usual crisis into another channel; that this assistance can only be attempted with propriety, by emptying the pustules, as thereby fresh room is given in them for the reception of the circulating matter still remaining in the blood, and which could not be contained in the first eruption, by which



which means every end and purpose of averting or subduing *the second fever* is obtained, with a moral certainty ; whilst phlebotomy and cathartics administered with this view, are both irrational and precarious, as being opposite to the constant operation of nature in her management of this dreadful disease."

According to some writers on the Small Pox, there is the eruptive fever, and the fever of suppuration ; in the formation of abscesses in general, we reckon but one fever, that which tends to suppuration, and this is regularly encouraged to a certain degree. Should a *delirium* be threatened, bleeding is then prescribed, and is thought by the best writers in physic and surgery, to assist maturation. Purgative evacuations tend to create a retrocession of the mat-



ter, and are therefore forbidden in all critical abscesses. Clysters are recommended as safe and necessary, when there is great costiveness and tension.

The great success attending Inoculation is not in my opinion to be attributed so much to the quantity of poison admitted into the course of the circulation, since a spark will excite a flame, as to the manner in which it falls upon the habit, that is lightly and equally: the lungs or other vital parts not being in any considerable degree affected.

In the natural Small Pox, the contagious particles are imbibed by the mouth, nostrils, and throat, and conveyed to the chest, head, or both, and these parts become loaded with an infinite number of pustules.

I have



I have the most perfect recollection of the instant in which I contracted the Small Pox. When eight years old I caught the disease from an infected pillow case, which emitted a very strong and penetrating odour; a near relation of mine about the same age, perceived it also, and we spoke of it to each other. We both sickened on the eighth day, and had the distinct sort, with a good crop of pustules. I had been constantly in the sick chamber for thirteen or fourteen days without ever perceiving that particular smell.

Nature must certainly have much more difficulty in contending with the distemper internally, than when the limbs and the external integuments of the body are the chief seat of the contagion. The lungs being attacked with inflammation,  
 difficulty



difficulty of breathing must consequently ensue. These organs, whose use is declared to be to fan, and whose air vessels to cool the blood, become now the subject of fever, are incapable of affording themselves the same assistance they give to other parts of the body when under feverish influence; yet by draughts of fresh air, they even in this state, must receive a considerable degree of relief. Many writers are of opinion, that *dephlogisticated air* in the lungs, cools the blood coming hot from the right ventricle of the heart, and thus operates powerfully, and with great success as a refrigeratory.

I was present when a young lady, one of the children before-mentioned under Inoculation, was seized with a fainting fit, in the last stage of the distemper, and was almost  
 expiring



expiring from the extreme heat of the room, in which three others were ill of the same complaint. Upon throwing the windows open, she began to breathe, was removed into a fresh apartment, and recovered.

We are immediately sensible of the cooling influence of the air on the internal, as well as the external parts of our body, when we are much exposed to it by standing near a river; and we find a feverish heat is soon removed by this circumstance alone,

Air, when applied to the external surface of the body, is far from being prejudicial to the pustules. All the modern Inoculators, Sir, as well as yourself, recommend to their patients, the keeping their apartments refreshingly cool and temperate.



rate. Dr. *Mead* advises “not to chill and freeze the patient in winter, but to supply him with pure and cool air, which he may take in plentifully, because a hot air causes difficulty in breathing and an inflammation of the lungs.”

The Doctor says, “I have seen subjects in which the lungs, brain, liver and intestines were thick beset with pustules; nor have I the least doubt but that those sudden deaths, which sometimes happen towards the end of the disease, are occasioned by the efflux of the purulent matter from the bursted pustules on one or other of the nobler parts” \*.

It

\* Mr. *Holwel* says, “In an epidemic season of the confluent Small Pox; Turkeys, Chittygong fowls, Madras capons, and other poultry, are carried off by the disease in great numbers; and have the symptoms usually accom-



It will be said, perhaps, that cold air repels, and therefore that the patient ought, according to my opinion, to be excluded from it. Is it not admitted, Sir, that *Shiverings* are the usual attendants on the formation of matter, and that they assist its expulsion?

Mr. *Holwel* says, “ that in *India* he has been an eye-witness to the marvellous effects of throwing a few gallons of cold water over the head; the pustules, which had subsided, filled again, as by enchantment.

accompanying every stage of the distemper. I had a favourite parrot that died of it in the year 1744; in him I had a fair opportunity of observing the regular progress of the disorder; he sickened and had an ardent fever full two days before the eruption; on opening him, we found his throat, stomach, and whole channel of the first passages lined as thick with pustules as the surface of his body, where for the most part, they rose contiguous, but in other places they ran together.



Blood-letting, so far from preventing suppuration, we are assured from the best authority, (that of Dr. *Mead*, Mr. *Sharp* and others) actually promotes it. But this cannot be said of purgative evacuations; which cause a retrocession and absorption of the matter.

On this bad and injudicious principle of retarding maturation, Sir, it is, that some gentlemen of our profession, recommend the making an early opening by caustic, in inguinal\* and other abscesses, before they are ripe. They alledge, that by so doing, we may prevent the formation of sinuses, and erosion of the neighbouring parts. Though there is some shew of reason in this argu-

\* This, like the variolous abscess, is an envenomed abscess, accompanied also with a fever, *sui generis*.

ment,



ment, I disapprove of the practice, having seen many instances of induration being left behind, and of a relapse and second suppuration taking place in consequence of the matter's not being all critically discharged at the first opening. This event is similar to that of secondary fever in the Small Pox, which arises from the absorption of the *virus*, and produces abscesses in the axilla, or other parts of the body. Such are the consequences of any interruption being given to Nature, in the course of her salutary operations. A patient who had been treated in this manner, and where there was a hardness left about the wound, was seized three weeks after with a relapse, and a second suppuration took place. Displeased with the event, he went daily whilst under the



care of his Surgeon, to another gentleman of the profession, who seeing the bad consequences of this practice, took extraordinary pains to convince the patient that it would be greatly to his advantage to wait till Nature had deposited every drop of matter she intended to make. No time, said he, will be lost, for when an abscess ripens kindly, the wound heals better afterwards, than when it is crude and indigested. This sort of reasoning coming from a gentleman of the first eminence, gave the patient entire satisfaction; he followed the advice, and was perfectly cured.

Since much is left to *Nature*, whose action is commonly called the *vis vitæ*, we ought to endeavour to give some account of her agency.

*Hip-*



*Hippocrates* has said that Nature was the curer of Diseases. Dr. *Mead* describes this first mover within us, which perceives, thinks and reasons, as a spirit of some kind or other, entirely different and separable from terrestrial matter, yet most intimately united with our bodies. If this is the case, should we attempt to do every thing ourselves and leave nothing to Nature, this intelligent spirit? Or should we study to obey her dictates? The best physicians in all ages have recommended a close attention to symptoms, which are the efforts of nature in every distemper. We must not therefore inconsiderately condemn those, whoever they be, who leave much to this powerful agent, but rather such as obstruct her salutary endeavours.



Dr. *Tissot* compares the human mechanism and it's operations to that of a watch, which he observes, can be repaired only by the hands of a regular artist ; but the comparison does not hold, there being no vivifying principle in this machine, to direct and forward it's motions\*. In the human body it is the province of

\* “ We do not confide the mending, or cleaning of a watch to any who have not spent several years in considering how a watch is made. what are the requisites and causes of its going right ; and the defects or impediments that make it go wrong : and yet the preserving and rectifying the movements of the most complex, the most delicate and exquisite, and the most estimable machine upon earth, is entrusted to people who have not the least notion of its structure, of the causes of its motions, nor of the instruments proper to rectify their deviations.”

An animal machine when out of order, we know, will often recover of itself, but a watch will not, for want of the *vis vitæ*, the powers of nature.

the



the physician to attend minutely to the various operations of Nature, which being clearly discerned, may be assisted by his endeavours, which should ever be subservient to her, the *vis medicatrix naturæ*, and are then most likely to succeed. In a matter of so great moment as health, which being disordered, often requires the greatest abilities to restore, people's interest and an attention to their own safety will prompt them, if they have any understanding, to apply to those who, as Dr. *Tissot* says, by education and medical opportunities, it may be presumed, are best qualified to give them relief.

Empirics are undoubtedly the most destructive enemies to mankind: however it must be confessed, that in the practice of Inoculation there are many practitioners well



known in this and other countries, who make no pretension to medical skill, whose success is to be envied, and can only be attributed to that happy ignorance which disables them from causing an interruption to the efforts of nature by such means as are said to be *secundum artem*.

You observe, Sir, that every method is to be taken during *the primary fever*, by a cool regimen, &c. to prevent too great an eruption; yet after the pustules have made their appearance, our business is to promote the suppuration by diluting drinks, light food, and if nature seems to flag, by generous cordials." You have here drawn the medical line distinctly, and with judgment, *if too great an eruption can be prevented with safety*. I must not put my little knowledge  
and



and experience in the scale against yours. You agree with me however, in admitting that you have seen the pernicious effects of purging in the early stages of this distemper; and that you have known children so much exhausted by different evacuations, as to sink under the disease.

Whilst your book, with those of *Mead*, *Tissot*, and other excellent physicians, is in every body's hands, I need not be apprehensive that any of my speculative opinions, supposing them to be wrong, will have influence to do any mischief. In the following pages, I shall therefore deliver my sentiments.

Much may be said on both sides of the question; and, I think I have made choice of that which is most safe. Every one is sensible in some degree  
of



of the bad consequences of purging in certain stages of this distemper ; yet some medical gentlemen are more strongly impressed with this idea than others, according as experience has afforded them more or less Information. Extremes are generally reckoned bad, and it may perhaps be said, that by endeavouring to avoid the rock of *Scylla*, I have split on that of *Charybdis*. If this is the case, I can only say, that there are many others in the world who have presumed too much on their own ideas, and whose reasoning would not stand the test when opposed to the stronger reasonings of others.

*Non mihi, sed rationi, aut quæ ratio esse videtur,  
Milito. ——— SCALIGER.*

There is an advantage arising from the close investigation of any disputed  
puted



puted point ; for by collision of opposite opinions truth is often discovered, and science greatly improved. Logical argument and controversial reasoning cannot well be adapted to every understanding ; but striking facts and the consequences thence deducible are to every capacity plain and obvious. It were perhaps better that a hundred frivolous observations were ushered into the world, than that one important fact should be lost.

Dr. *Duncan* has published a very sensible argument in favour of *Theory*, in his *observations on the use of mercury* \*.

With

\* “ Theory in medicine is principally despised by two sets of practitioners, the ignorant and the lazy ; the last are unwilling, and the first are unable to acquire the knowledge of it ; and amidst all their boasted contempt,  
it



With respect to the management of the primary eruptive fever before mentioned, most practitioners are of opinion, that the body ought to be kept cool. But, is this to be done by purgatives ? I should think not. Purgatives, Dr. *Cullen* observes, not only inflame the *rectum*, but also extend their irritation to other parts of the body. Dr *George Fordyce* \* says, with great truth, that severe purging often augments the inflammatory symptoms ; if this

it will be found that they principally differ from others in implicitly adopting whatever opinions they first receive. Theory is natural to the human mind ; and those who are accustomed to think, cannot be satisfied without assigning a reason for every phænomenon which falls under their observation. Theory by no means precludes observations : on the contrary it leads to a more minute attention to facts, and in this way opinions, of themselves ill founded, have often given rise to useful discoveries in practice."

\* Elements of Physic.



is the case, *gentle* purging, that is, the procuring two or three stools in the day, cannot contribute *much* to the cooling the patient and abating inflammation ; for I apprehend that all purgatives act as stimulants.

The faculty do not agree in opinion with regard to the property of *nitre*, when taken into the stomach, or, as is supposed, into the blood. Some recommend this salt for its cooling quality, whilst others contend, that it produces considerable heat, and they bring experiments in proof of their assertion ; so uncertain are the effects of many internal remedies ! Should we not rather employ means which we are well assured contribute to cool ? remove the bed cloaths, admit fresh air, and give diluting acidulated drinks ?

F

Though



Though *nitre* is heating, it may be said perhaps that there are medicines which *cool*, a circumstance, I shall not attempt to disprove, but shall leave the *onus probandi* to those who place the greatest confidence in their utility.

The curative effects of *bark*, *opium*, *mercury*, and some other remedies are demonstrable, which is not the case with every medicine. Some of the good purposes which medicines in general answer, are very apparent and certain: they ease the mind of the sick, by removing all appearance of neglect; they contribute to the patient's recovery, and compensate the medical attendant for his trouble.

In a daily attendance of seven years at *St. Bartholemew's Hospital*, I have seen many patients under the  
Small



Small Pox. Little medicine, just what was necessary, was administered there, and no more. Nature was permitted to do her proper work.— It is in these public habitations for the sick, that a knowledge of the practice of physic is best acquired, being there perfectly orthodox, simple and undisguised.

I knew a lady, who by the desire of the surgeon who inoculated her children, took all the medicines which came from the apothecary, and locked them up in her bureau, and not one of them was administered. The apothecary was regular in his visits, and remarked how well every thing went on, and particularly observed the good effect the medicines produced on the pocks, *in plumping them up*; an observation which might naturally have occurred



red to any man so deceived. The fact was, this surgeon had seen the bad consequences of some preparatory courses, and of the medicines administered during the Small Pox, which made him resolve, for the sake of his own credit, that no interruption should be given on this occasion, by what he considered as superfluous care at the best \*. He saw the propriety of making a recompense to the apothecary for his time, and requested this might be made in a handsome manner, as is done to the rest of the profession. If this mode of payment was adopted, it could not fail to promote the advantage of all parties. A celebrated physician has declared in his

\* This gentleman had observed as well as yourself, "That the patient's greatest danger in Inoculation arose, not from the want of care, but from the excess of it."



works, that he did not think himself warranted to take money out of the pocket of one man to put it into that of another, unless there was a valuable consideration for the same. —If this laudable example was followed in every business and profession, it would be much to the benefit of the community at large, and not a little to the credit of those who practised it.

I have dwelt long on the subject of the Faculty, as I am persuaded, that the evils of the preparatory process and subsequent course of superfluous medicines arise principally from this interested source.

Inoculation is an inestimable, yet tender plant, which requires the effusions of benevolence to water it and promote its growth. In this country at present it is unfortunately



exposed to the nipping blasts of a destructive influence, yet I am pleased with the prospect that it will flourish in our climate some time or other with great luxuriance. But whether we are more likely to be indebted on this occasion to the good endeavours of the Faculty, or of others, being a matter wherein opinions differ much, it would ill become me to decide †.

I have just been shewn a plan of a Dispensary for Inoculation in the city and county of *Chester*, which has been attended with remarkable

† It is rather extraordinary that *Inoculation*, the most rational and beneficial of all inventions, should have been so much opposed, whilst the absurd practice of *the transfusion of the blood of animals into the human body* was so eagerly embraced, in this country; in my opinion, it can only be attributed to a selfishness of disposition, which induces people to take much more pains to prolong their own than to preserve the lives of others.

success;



success ; and another in *Holborn* ; two of the conditions of the latter are as follow ; “ Every single patient is to pay *five shillings* at the time of Inoculation, and to be attended carefully, and regularly, at their own houses, from the time of sickening, 'till they are quite recovered, without any additional expence whatever.” The last runs thus :

“ Very poor people shall be inoculated *gratis*, and also their families ; and shall be attended in the same manner, provided they furnish some kind of proof of their desert, from a person of credit, to whom they are known.”

It gives me much pleasure to learn, that Dispensaries for Inoculation are beginning to be provided in this metropolis and other



places. These useful institutions, since the hospital for Inoculation can only accommodate a small number of those who apply, being the first of the kind which have come to my knowledge, I am happy, Sir, to communicate to you the pleasing information.

I cannot conclude my Letter without a quotation from your book, and one from Dr. *Black*, which appear to me to be much to the purpose. “ As the Small Pox has now become an epidemical disease in most parts of the known world, no other choice remains, but to render the disease as mild as possible. This is the only manner of extirpation, now left in our power ; and though it may seem paradoxical, the artificial method of communicating the malady, could it be rendered



dered universal, would amount to nearly the same thing as rooting it out. It is a matter of small consequence whether a disease be entirely extirpated, or rendered so mild, as neither to destroy life, nor hurt the constitution ; but that this may be done by inoculation, does not now admit of a doubt."

" Every life, says Dr. *Black*, saved by this practice, is so much solid treasure and strength added to the nation. There is no disease, where we have it so much in our power and command to lessen mortality, as in the Small Pox by Inoculation. It is a bridge, furnished by Providence to pass over a deep gulph or raging whirlpool, in which millions of the human species have been lost."

This



This religious and just idea is well suggested, and helps to reconcile this beneficial practice to the minds of all, who are not predetermined never to submit their judgment to the voice of Reason.

The Parents who are so unfortunate as to lose a Child by this practice, will have the consolation within their bosoms, that they were actuated by the best of motives : whilst those who meet with a similar misfortune, through the omission of this important duty, will have not only the upbraidings of their own minds to encounter, but also the merited reproaches of the world. I wish all those who are entrusted with the care and education of children, would take this subject into serious consideration, and I think



think they would be induced to adopt the practice from the result of reason and reflection.

Those, who sincerely wish success to the practice of Inoculation, ought to oppose every gentle and persuasive argument to the rooted prejudices of mankind. Much mischief is excited and opposition kindled by every spark of irritation, which we should carefully avoid, since it never produces any good or beneficial consequences.

The General, who meditates an attack on a citadel, fortified by nature and art, often proceeds by stratagem and address, rather than open force. By these manœuvres what was deemed at first impregnable, is finally compelled to surrender. In like manner do the most inveterate prejudices yield to the



the well timed influence of cool reason and fair argument.

The man who wishes to make profelytes to any Cause, should seize the happy moment of a mental Calm, to enforce his tenets. Advice never makes so deep an impression on the mind, as when it is known to proceed from honest disinterested motives, and a regard for the public good. These considerations never fail to make converts in the end: a truth which you, Sir, must frequently have experienced in the course of your indefatigable and laudable attempts, to promote the health and welfare of mankind.

I shall be happy to have my endeavours co-operate in any degree with your's in rendering the practice of Inoculation what it ought  
to



to be, plain and simple, to strip it of its borrowed terrors, and make it familiar and acceptable to the whole world.

That you may, in this metropolis, meet with all the success due to your approved merit, is the sincere wish of

S I R,

Your most obedient

Humble Servant,

PETER CLARE.

*Chancery-Lane,*

*September 1, 1781.*



( 10 )  
*Published by the same Author,*

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## TO THE PUBLIC.

SINCE my Letter to Dr. *Buchan* was printed, I have seen a Pamphlet containing *A Series of Experiments, instituted with a view of ascertaining the most successful method of Inoculating the Small Pox.*

From the whole of these experiments it appears, that neither the number of the pustules, nor the mildness of the disease depends, in the smallest degree, on the mode of preparing the body; that Inoculation generally succeeds best, without any preparation; and that the common method of giving violent purges and mercurials, does more harm than good.

No one will question the accuracy of experiments made by the ingenious and candid Dr. *Watson*, F.R.S. and Physician to the Foundling-Hospital.



THE PUBLIC

Since my letter to Dr. Barker  
is printed, I have seen a pamphlet  
containing a summary of the  
views of a series of physicians  
on the subject of the  
lung the small Fox.  
From the whole of this account  
it appears that the  
lungs are the organs of the  
respiration, and that the  
arteries of the lungs depend on the  
arterial system, on the mode of  
supplying the body; that the  
lungs are the organs of the  
respiration; and that the  
method of giving violent  
respirations, does more harm than  
good.

It is now well known the accuracy  
of experiments made by the  
lungs and called Dr. Walker's  
and A. B. to the following

H. H.



# UNIVERSAL INOCULATION.

The following Arguments are submitted to the Consideration of the Public.

I Have often (says the Author) wished to see some plan established for rendering the salutary practice of Inoculation universal;\* but am afraid I shall never be so happy. The difficulties indeed are many: yet the thing is by no means impracticable. The aim is great; no less than saving the lives of one fourth part of mankind. What ought not to be attempted in order to accomplish so desirable an end?—The first step towards rendering the practice universal, must be to remove the religious prejudices against it. This can only be done by the clergy.—They must not only recommend it as a duty to others, it likewise practise it on their own children.—Example will ever have more influence than precept.

The next thing requisite is to put it in the power of all. For this purpose we would recommend it to the faculty to inoculate the children of the poor *Gratis*.—It is hard that so useful a part of mankind should, by their poverty, be excluded from such a benefit.—Should this fail, it is surely in the power of any State to render the practice general, at least as far as their dominion extends. We do not mean that it should be enforced by a law. The best way to promote it would be to employ a sufficient number of operators, at the public expence to inoculate the children of the poor. This would only be necessary, till the practice became general, afterwards custom, the strongest of all laws, would oblige every individual to inoculate his children to prevent infections.

It may be objected to this scheme, that the poor would refuse to employ the inoculators; this difficulty is easily removed. A small stipend to enable mothers to attend their children while under the disease, would be a sufficient inducement; besides, the success attending the operation would soon banish all objections to it. Even considerations of profit would induce the poor to embrace this plan. They often bring up their children to the age of ten or twelve, and when they come to be useful, they are snatched away by this malady, to the great loss of their parents and detriment of the public.

To prevent such fatal accidents we would therefore have every parish in Britain allow a small annual salary for inoculating all the children of the parish of a proper age. This might be done at a very trifling expence, and it would put it in the power of all to enjoy the benefit of this salutary invention. Two things chiefly operate to prevent the progress of Inoculation. The one is a wish to put the evil day as far off as possible. This is a principle in our nature, and as Inoculation seems rather to be anticipating a future evil, it is no wonder that mankind are so averse to it. But this objection is sufficiently answered by the success. Who in his senses would not prefer a lesser evil to-day to a greater to-morrow, provided they were equally certain?

The other obstacle is, the fear of reflections. This has very great weight with the bulk of mankind. Should the child die,

\* The Author asserts, "That more die annually of the natural Small Pox now, than before Inoculation was introduced. While it is confined to a few, it must prove hurtful to the whole. By means of it the contagion is spread, and is communicated to many who might otherwise never have had the disease." The French deliberated in council on this point, and resolved in favour of no Inoculation rather than a partial one.

they think the world would blame them. This they cannot bear.—Here lies the greatest difficulty, and till that be removed, Inoculation will make but small progress. Nothing however, can remove it but custom. Make the practice fashionable and all objections will soon vanish. It is fashion alone that has led the multitude since the beginning of the world, and will lead them to the end. We must therefore call upon the more enlightened part of mankind to set a pattern to the rest. Their example, though it may for some time meet with opposition, will at length prevail. I am aware of an objection to this practice from the expence with which it may be attended: this is easily obviated.

There is not a parish, and hardly a village in Britain, destitute of some person who can bleed. But this is a far more difficult operation, and requires both more skill and dexterity than Inoculation. The persons to whom we would chiefly recommend the performance of this operation, are the clergy, most of them know something of medicine. Almost all of them bleed, and can order a purge, which are all the qualifications necessary for the practice of Inoculation.

Should all other methods fail, we would recommend it to parents to perform the operation themselves. Let them take any method of communicating the disease they please, provided the subject be healthy, and of a proper age, they will seldom fail to succeed to their wish. I have known many instances of mothers performing the operation, and never so much as heard of one bad consequence. A Planter of one of the West-India Islands is said to have inoculated with his own hand, in one year, three hundred of his slaves, who notwithstanding the warmth of the climate, and other unfavourable circumstances, all did well. Common mechanics have often, to my knowledge, performed the operation with as good success, as physicians. We do not however mean to discourage those who have it in their power, from employing people of skill to inoculate their children, and attend them while under the disease, but only to shew, that where such cannot be had, the operation ought not on that account to be deferred. Instead of multiplying arguments to recommend this practice, I shall just beg leave to mention the method which I took with my own son, then an only child, after giving him two gentle purges, I ordered the nurse to take a bit of thread which had been previously wet with fresh matter from a pock, and to lay it upon his arm, covering it with a piece of sticking plaster. This staid on six or seven days till it was rubbed off by accident, at the usual time the small-pox made their appearance and were extremely favourable.† Sure this, which is all that is generally necessary, may be done without any skill in medicine."

*Domestic Medicine, p. 252.*

† The celebrated Monsieur DUPLANIL, who has translated DOMESTIC MEDICINE, prefers the application of SMALL BLISTERS (de petits emplâtres vésicatoires) to sticking plaster, on account of the greater certainty of the matter's being absorbed when the cuticle or scarf-skin is raised and detached. This method has been repeatedly tried in France, and is recommended by Monsr. Tronchin, to those who are friends to Inoculation and have at the same time an insuperable objection to all kind of cutting instruments. In some countries they use a lancet; in some a needle, and in others a sharp-pointed thorn. In Turkey the women inoculate, and in the East Indies the Bramins or priests.



10

The first of these is the  
fact that the world is  
not a uniform whole, but  
a collection of many  
different parts, each of  
which has its own  
character and history.  
The second is the fact  
that the world is not  
a static whole, but a  
dynamic one, constantly  
changing and evolving.  
The third is the fact  
that the world is not  
a single entity, but a  
collection of many  
different peoples and  
nations, each with its  
own interests and  
aspirations.

The fourth is the fact  
that the world is not  
a simple whole, but a  
complex one, with many  
different layers and  
levels of organization.  
The fifth is the fact  
that the world is not  
a single entity, but a  
collection of many  
different peoples and  
nations, each with its  
own interests and  
aspirations.

The sixth is the fact  
that the world is not  
a simple whole, but a  
complex one, with many  
different layers and  
levels of organization.  
The seventh is the fact  
that the world is not  
a single entity, but a  
collection of many  
different peoples and  
nations, each with its  
own interests and  
aspirations.