Bromfield

THOUGHTS

ARISING FROM

EXPERIENCE,

Concerning the present

PECULIAR METHOD

OF TREATING

PERSONS

Inoculated for the

SMALL-POX.

(Price Two Shillings and Sixpence.)

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PECULIAR METHOD

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RELATING TO

The PREPARATION of the PATIENTS.
The MANNER of the OPERATION.
The GENUINE NATURE of the DISEASE, and of some other ERUPTIVE CASES.
The Use of COLD AIR.
The Effect of Retarding or Lessening the ERUPTION, and of PURGING after it is over.

By *W. BROMFEILD*,
SURGEON to Her ROYAL HIGHNESS the PRINCESS DOWAGER of WALES,
and to St. GEORGE's and the LOCK-HOSPITALS.

LONDON,
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TO THE

QUEEN.

MADAM,

BY your Royal Permiſſion, I have the honor to lay this ſmall TREATISE at your Majeſty's feet; not, from any vain thought of merit there may be in it, but, becauſe of the very great importance of the ſubject.

IT is a matter, in which all parents are deeply concerned: To whom

whom then can it be ſo naturally or ſo properly addreſſed, as to the tendereſt mother, and moſt affectionate parent of the people?

THE purpoſe of the whole has been, impartially to examine all methods, and by ſelecting what may be good, even from the worſt, and ſeparating what Experience has ſhewn to be wrong, even from the beſt; to lay before the public a practice which has hitherto been ſucceſsful, though in neither extreme, adapted to the variety of circumſtances as they may offer in different conſtitutions.

THE event of all things is in greater hands; the integrity of my

intentions, I hope, will appear; and in caſe I ſhould be ſo happy as to have procured ſome good to the people, I am ſure, I ſhall have done what is moſt pleaſing to the QUEEN.

I have the honor to be,
with the moſt perfect duty,

MADAM,

Your MAJESTY'S
moſt humble,
moſt obedient
and moſt devoted Servant,

W. BROMFEILD.

THE INTRODUCTION.

I FLATTER myſelf, when laſt I put pen to paper, as an author *, I appeared as champion for the ſafety of the people; not as a malevolent antagoniſt to the eſpouſer of the particular medicine, but, only to remonſtrate againſt the ravages committed by the indiſcriminate and ignorant adminiſtration of it, by others.

I MAY eaſily be credited, when I aſſert, that public benefit *only* was propoſed by me, at that time, as the ſubject could be in no wiſe intereſting to me as a ſurgeon, and my giving away the copy, prevented even the ſuſpicion of mercenary views.

* On the *Solanum*.

THE motives for the publication of that little treatiſe, I have reaſon to believe were ſufficiently obvious to thoſe who did me the favor to read it; and the ſeveral editions it went through, in ſo ſhort a time, afford a ſtrong preſumption of the *intention* of the author being approved of by the public.

I AM now to ſtand forth in a much more ſuſpicious character, when I am to examine ſtrictly the practice of others in the way of my own profeſſion, and 'tis moſt likely ſhall hazard that good opinion I had obtained from the public, by endeavouring here to remove prejudices in favor of a practice they have adopted, without an examination due to the importance of the ſubject.

THE credulity of my countrymen has been juſtly the object of ridicule to foreigners, in ſome notorious inſtances, *viz.* the Rabbit Woman, the Bottle Conjuror, *&c.* and within theſe thirty years laſt paſt, a drunken woman could, by the report of her emiſſaries, and the adroitneſs of the witlings of that time, diſpoſſeſs people of their underſtandings for a while, and perſuade them that this poor ignorant wretch could by hereditary right, as a deſcendant from a country bone-ſetter, do more than all the

moſt

moſt ſkilful anatomiſts, or moſt eminent ſurgeons of the time. To have attempted to turn the torrent by reaſon, during the fit of folly, would only have given ſtrength to the ſtream; but experience did more toward the recovery of their ſenſes than fifty volumes from the profeſſors of ſurgery could have effected in the given time. Tho' theſe maniacal ſymptoms we cannot deny, yet, the *French* certainly caught the infection from ſome of the *Engliſh* emigrants then at *Paris*, or they could not have been ſo little *themſelves*, as to have given credit to a man who ſhould aſſert, he would give them a diſeaſe which ſhould not produce one ſingle ſymptom, that could characteriſe it from their uſual ſtate of health. I own, I am afraid that *Inoculation*, tho' hitherto a great bleſſing to our iſland, will, in a very ſhort time be brought into diſgrace, by the licentiouſneſs of ſome of the preſent itinerant practitioners; for as the faſhion is likely to ſpread in a higher ſphere, a little ill ſucceſs among the great will not be *totally* ſmothered, and we ſhall then hear of ſome truths, which will *for a time* deter people from giving their children a chance of eſcaping the ravages of the diſeaſe, when ſeizing the unprepared victims.——It is poſſible my apprehenſions may be ill-grounded, but what I have here related is a practice built on the

authority of our beſt writers, confirmed by the experience of the moſt eminent of the profeſſion at this time, as well as my own obſervations for many years; if the preſent ſet of gentlemen who treat their patients when inoculated *in a very ſingular manner*, ſhould by a candid enquiry among their friends chance to find out, that inconveniences have ariſen from any particular plan they had adopted, I make no doubt but they will ſilently change their ſyſtem, for the benefit of mankind, and their own credit; and I do aſſure them, that I am equally open to conviction, and if it ſhall appear by the moſt authentic intelligence which I can procure from diſintereſted people, either in or out of the profeſſion, that health and ſecurity from the diſeaſe, can be equally obtained by reducing the patients ſo low, as only to produce from 5 to 15 pimples, when the ferment is raiſed, by letting their patients be expoſed to the inclemency of the weather, and checking maturation, as by promoting it by proper temperament of air, according to the neceſſity of different conſtitutions; if experience ſhould determine in favor of the former, I muſt ſubmit.

SECTION I.

Of Preparation.

WE are told in a pamphlet lately publiſhed, by a very eminent and ingenious phyſician*, that Inoculation in ſeveral counties of *England* is practiſed by ſome adventurers as follows: " All perſons are obli-
" ged to go thro' a ſtrict preparatory regimen
" for a fortnight before the operation is per-
" formed. During this courſe, every kind of
" animal food, milk only excepted, and all
" fermented liquors and ſpices are forbidden.
" Fruit of all ſorts is allowed, except only on
" thoſe days when a purging medicine is
" taken. In this fortnight of preparation a
" doſe of a powder is ordered to be taken,
" at bed-time, three ſeveral times; and on
" the following mornings a doſe of purging
" ſalt. To children only three doſes of the
" powder are given, without any purging
" ſalt. The compoſition of this powder is
" induſtriouſly kept a ſecret. But that it
" conſiſts partly of a mercurial preparation,
" is demonſtrated, by its having made the
" gums of ſeveral people ſore, and even ſa-
" livated

* Dr. *Baker's Inquiry*, &c. p. 6.

" livated others. The Inoculator * ſays, he " never found any ill effects ariſe from pa- " tients being reduced very low, and that " generally the lower they are reduced the " more favourable is the diſeaſe." Here I muſt beg leave to remark a great inaccuracy of this practice, unleſs all his patients are of the ſame degree of health and ſtrength ; as a fortnight is the given time for preparation, and three doſes of mercurial phyſic, to be taken at proper intervals, during that period.

An inflamed ſtate of the blood is certainly a great objection to the operation being done, as experience has long ſince determined ; very malignant fevers having made their appearance at the expected period of the variolous ſymptoms, which have carried off the patients, when the ſmall-pox eruption has been of the moſt favourable kind, and few, but ſurrounded with petechiæ as numerous almoſt as the terminations of the excretories on the ſurface of the ſkin. I cannot ſay that I ever ſaw any ill effect from inoculating thoſe who have been ſubject to ſcorbutic eruptions from an acrimonious ſtate of the blood, nay, far otherwiſe, for a plentiful eruption, permitted to maturate kindly, has often proved a perfect cure.

By

* *Lib. cit.* p. 15.

By way of preparation for inoculating, ſome people have kept their children extremely low, and purged them repeatedly at three or four days interval; others again have given calomel. Whether mercurial purges are always neceſſary, or advantageous, I cannot determine, as I only give them to children, where I apprehend ſlime, or worms in the primæ viæ; nor has my experience furniſhed me with authority for a *general* practice for its uſe in preparing patients for the operation. I own myſelf rather prejudiced againſt that plan of *ſweetening* the blood, as it is called; as the worſt ſort of ſmall-pox I ever ſaw from inoculation, was in ſome children that had been *thus* prepared before I ſaw them, and from the obſervations I have made, I really think, manifeſt injury has been done by diſſolving the blood, and rendering it ſharp and acrimonious, and is more frequently attended with a bad ſort of ſmall-pox, and more dangerous ſymptoms, than where leſs preparation has been uſed *.——— The preparation uſed by *Rhazes*, was bleeding, ſwimming, ice-water, (which was likewiſe his beverage till the patient vomits and ſweats in the attack of this diſeaſe), the coldeſt acid diet, juice of unripe grapes, and ſalads; the

* *Freind*'s Hiſt. of Phyſic.

the receipt he gave of acids and ſpodium, was ſo much in vogue among the *Indians*, that they did not believe that any one who uſed it, could have more than ten puſtules in the whole; the body to be kept open by ſome *lenient* cathartic infuſion, which, he ſays, will make the puſtules fewer, and this to be continued, if the diſtemper ſhould be violent.

My general method is this, in children, to empty the bowels by two or three purges, at proper diſtances, before I inoculate, and as ſoon as the operation is performed, to abſtain from all meat, and fermented liquors, to live chiefly on vegetables, and to keep the body open by ſome lenient medicine, or diet that will produce a ſtool, at leaſt, every other day; and during the preparation, even to the time of the eruption, to take their uſual airings and gentle exerciſe.— If the habit of body is ſuch as manifeſtly requires reſtoratives, or otherwiſe correcting, Inoculation ſhould be deferred till that is effected; Adults, indeed, require a ſtricter regimen before the operation is performed, and if plethoric to loſe a little blood; and yet, with *all* the *preparation thought requiſite*, it is certain, infection taken by the lungs, does not prove ſo mild as by inoculation, to one in fifty.

No

No general plan of preparation can poſſibly be laid down; as three doſes of phyſic may be too many for ſome weak children, and ſix may be too few for adults, that are robuſt and corpulent; the judgment of the Inoculator ſhould always determine as to the neceſſity of evacuations, and abſtinence, or occaſionally to invigorate by a more nutrient diet.

As inſtances of the ill effects of reducing patients too low in the preparation are not few, I may be permitted to mention one which was very remarkable: A gentleman of great fortune lately conſulted an eminent phyſician and me, and told us, that his father, in order to render the diſeaſe as mild as poſſible when he was to be inoculated, was preparing him ſeveral weeks, by repeated purges, low diet, and every method to *ſweeten the blood*, as it is called; which ſoon, from a ſtrong healthy youth, reduced him to a very weak ſtate: he was then inoculated, and at the uſual time was taken ill, but had only a raſh, which never maturated, tho' all the aſſiſtance of medicine, directed by people of the firſt rank in the profeſſion, was given; he was ſent extremely weak and low ſpirited to ſchool, and in a few weeks had an eruption that came out in blotches, or rather

 cluſters

clusters of pimples, that maturated; yet, notwithstanding this effort of nature to depurate the blood, he has not ever been healthy since, though many years have elapsed; but has frequently rashes that appear, and suddenly retire, loss of appetite, indigestion, his skin discoloured in several places with a sort of morphew on it, and is ever complaining, and his complaints are now called *nervous*.

THIS remark made me enquire amongst my brethren who had been most conversant with inoculated patients; and they all agreed, that the plan I have mentioned, *mutatis mutandis*, according to the circumstances of the subjects, was in general the best preparation.

WE often find people sollicitous to have the matter taken from the *natural* sort of small-pox to be inoculated with, supposing it to be more efficacious, than that taken from an inoculated person; while others prefer the matter from inoculation as less virulent, and likely to produce a milder sort of the disease; but to put this matter beyond doubt, an experiment was made with variolous matter, taken from a person who was the 14th in descent, from the natural sort first inoculated; by a thread wetted with this matter, 20 children were inoculated at the

ſame time, who had all undergone the ſame kind of preparation. Some of them had the diſeaſe very mild, and others rather ſevere; this certainly ſhews, that the whole depends on the habit of body of the perſon inoculated; conſequently, the ſame kind of preparatory regimen cannot be proper in all conſtitutions. The quantity of matter introduced makes no kind of difference, as the ſmalleſt particle in ſome conſtitutions has produced almoſt a confluent kind of ſmall-pox; in others, tho' legs and arms have been deeply inciſed and well filled with matter, the effect has been only a few puſtules.

THE operation with theſe practitioners is likewiſe to differ from the practice that has been for many years eſtabliſhed by people of the firſt degree of eminence in the profeſſion.

SECT. II.

Of Variations in the Manner of Inoculating.

IT is certain that great improvements have been made in the manner of inſerting the variolous matter ſince the practice of inoculating was introduced in this kingdom; at firſt large and deep inciſions were made both in legs and arms, as if intended for iſſues, and crammed full of pellets of lint or cotton, well wetted with the ſmall-pox matter: the difficulty of healing the legs ſoon made the operators confine their inciſions only to the arms; and experience at length taught us, that the ſmalleſt particle of matter would produce the diſeaſe, and that the ſlighteſt ſcratch, with a ſmall thread moiſtened with the variolous matter, was as efficacious, when applied on the inciſion after it had ceaſed to bleed, as where the largeſt wounds had been made and much matter put into them.

THE method of inoculating, by the perſons alluded to in Dr. *Baker*'s Inquiry, *&c* *. is this. "The operator, he ſays, opens a "puſtule where the matter is in a crude "ſtate,

* Page 8.

" ſtate, with the point of a lancet, and then " juſt raiſes up the cuticle on the outer part " of the arm of the perſon to be inoculated, " with his moiſt lancet." But I have been told by a ſurgeon, who ſaw one of theſe gentlemen operate, that he wiped his lancet with the matter, on the part of the arm he intended for the inſinuation of the variolous matter, and then paſſed the point of his lancet thro' the middle of the matter, raiſing the cuticle as above deſcribed, and by the motions of the lancet, ſeemed to endeavour to get in as much of the matter as he could; " this done, he only preſſed down the raiſed " cuticle with his finger, and applied neither " plaſter nor bandage."

I WILL not inſiſt on it that matter introduced between the cuticle and cutis is not equally capable of producing the diſeaſe as where a ſcratch is made thro' the ſame integument ſufficient to ſlightly wound the true ſkin; but to riſque the receiving it by the mouth and noſtrils, in my opinion, muſt be wrong, or otherwiſe inoculation is abſurd.

I CANNOT ſuppoſe any particular advantage to ariſe from this method of inſerting the matter; on the contrary, I am convinced by the experience I have had, that the inciſion in the uſual way, that has of late years been

been practiſed, is *preferable*; if the diſeaſe is *given* in ſuch manner as to anſwer *nature's intention* in the natural way—by this I mean where the patient has not been reduced ſo low as not to be able to throw off the load by a plentiful *ſuppuration* of the pimples, or has been retarded by expoſing him to the cold air; but more of this in another place. ——Now, in caſe there ſhould be a load of humour to be thrown off, and a plentiful eruption is to be expected; every practitioner, as well as a parent, would wiſh it might be determined to any other part but the face and breaſt.

The reſult of what I have ſeen from repeated experiments, is this; that in *the ſame* perſons where I have inoculated *one arm* by a ſcratch of half an inch long, and laid on a thread wetted with the matter; and, in *the other*, inſerted the variolous matter with the point of the lancet, as above-mentioned; at the time when I expected the perſons would be taken ill, I as uſual applied large pultices of bread and milk, with a little oil, from the termination of the deltoid muſcle to nearly the bend of the elbow, totally ſurrounding the arm, with directions to change them as often as they became cool; by this method *begun early*, I have had the greateſt number on the inciſed arm, eſpecially about the inciſion,

ciſion, in almoſt every patient. But though the ſame applications were made to the arms *punctured*, according to the method practiſed by theſe gentlemen in the country; ſcarcely half a dozen came out there, when the *inciſed* arm of the ſame perſon was extremely full under the pultice; now what ſeems to give the modern *puncture* the preference by thoſe that eſpouſe the practice, is, that it only becomes a *puſtule*, and is the laſt that dries and falls off. Yet, there can be no doubt but advantage *is* had from the diſcharge of the inciſions, as the attempt to dry them up too early evinces, by the inflammation that comes round the part, as well as the lips thickening, and the ſore becoming foul.

For this reaſon, a ſoft digeſtive cannot be too long continued, and the wound will readily cicatrize, when the inflammation cauſed by the diſeaſe is removed by proper evacuations, and cooling medicines.

SECT. III.

Of the Nature of the Diſeaſe.

IN order to come at the proper method of treating inoculated patients, it will be neceſſary to trace the diſeaſe from its origin, through its various ſtages, in the natural way.

THE variolous ſeeds ſeem to be innate in the blood of every human being, in many parts of the world; and theſe, by a ferment, generally in ſome period of our lives, produce an eruption on the ſurface of the body, which at length become puſtules, the matter ſoon dries and forms ſcabs, which drop off, and the diſeaſe is then at an end.

FROM the univerſality of this diſeaſe amongſt mankind in moſt places, it ſeems, as if nature had ſome ſalutary end for the conſtitution, to be anſwered by this powerful depuration that the blood undergoes at ſuch time, which often proves the means of carrying off ſome other diſorders, and afterwards gives a better ſtate of health to the perſon who has gone thro' it.

THE

THE diſeaſe is evidently contagious, and is more or leſs violent, according to the habit of body in which it is produced. The milder ſort is termed *diſtinct*, the moſt malignant and dangerous, *the confluent*.

IT is advanced by a Writer on the ſmall-pox, that whatever cauſes may produce inflammation to a high degree, may produce the ſmall-pox; but if we could evade the cauſes productive of inflammation, or deſtroy the infection producing this ſpecies of inflammation, we might evade the ſmall-pox. So *vice verſa*, it might not ſeem unreaſonable, to ſay, that whatever might bring on a violent inflammation, might again produce the ſmall-pox.—This poſſibly may be carrying the point a little too far, yet, it is certain, that very high inflammatory fevers produce eruptions, that maturate; and ſome I have ſeen that have greatly reſembled the puſtules of the ſmall-pox, tho' that diſtemper in *all* its circumſtances, is very rarely known to come a ſecond time in the ſame perſon.

THE prognoſtication that may be made is this, that in caſe the perſon is attacked with an acute fever, violent pains in the head and back, frequent reachings to vomit, and univerſal heat; there is reaſon to believe the

fever will be attended with eruptions, and moſt likely the ſmall-pox, if the perſon ſo attacked has not had the diſorder.

SHOULD it prove the *variolæ*, and the eruptions make their appearance within the firſt 24 hours after the attack, it is of the confluent ſort, and they generally prove fatal; if within 48 hours, they run together, and are always attended with great danger; if on the third day complete from the invaſion, it generally proves a mixed ſort, and if the eruption does not make its appearance till the fourth day complete, it is always mild and diſtinct.

THIS then being allowed, we may lay it down as a general rule, that the later the eruption appears, the milder will be the ſort; how great then muſt be the impropriety of giving hot cordial medicines to hurry out the pimples?

SECT.

SECT. IV.

Of retarding the Eruption.

HIGH health and an inflamed ſtate of blood, when the infection is received, generally produce a moſt dangerous ſpecies of the diſeaſe, and the eruption is often within ſixteen hours after the attack: From improper treatment, I am clear, that where nature, if left to herſelf, would have produced a mild diſtinct ſort, but by inflaming the blood with cordials, bliſters, *&c.* confining patients to bed *at firſt*, and heated air; the conſequence is often a very bad confluent kind; ſo, *vice verſa*, if ſymptoms that threaten a very malignant ſort, are attacked by powerful and ſudden evacuations, the perſon kept out of bed, in a cool air, and every method taken to abate the inflammation, the diſeaſe will be rendered mild, tho', poſſibly, not of a diſtinct ſort.

IN ſupport of this aſſertion, I will relate a very remarkable caſe, that happened in my own family, in the year 1740.

A CHILD about three years of age was attacked with the uſual ſymptoms of a bad ſort of ſmall-pox, and from the great pain in its head and back, the mother thought it right to put him to bed; in leſs than twenty hours after he was ſeized, the moſt violent eruption of the miliary kind I ever ſaw made its appearance. Soon after a phyſician, who was at that time intimate in the family, called, and being told of the child's illneſs, he went up to viſit it, declared it the ſmall-pox, ordered it to be bled ſix ounces directly, and as ſoon as poſſible to get him ſeveral ſtools by purges of the cooling kind, with tamarinds.—This was done, and he had a dozen or more ſtools, and in the evening was bled again; he took nitre with barley-water at times in the night, or cheeſe-whey; on its being objected to the child's taking a ſecond doſe of purging phyſic, the next morning, leſt the eruption might *retire*, and thereby endanger his life, by interrupting nature in her deſign of throwing off the diſeaſe by the ſkin, and, conſequently, it might fall on ſome of the viſcera; the Doctor made for anſwer, that unleſs we *could* make it *retire* for *three* days *at leaſt*, the child would certainly die; if it could be kept back for *four*, it would be ſtill better; and if he could ſucceed in his intention, that the ſmall-pox would

would *then* come out in *clumps*, as he termed the next appearance of the pimples, not diſtinct univerſally, but in plotches, containing, perhaps, eight or ten diſtinct pimples; and that theſe clumps would be in various parts of the body. ——— The child was kept up the whole time, and the air frequently changed, the eruption ſoon diſappeared, and as the Doctor had prognoſticated, it made its appearance late on the third day, and the child was kept out of bed till it was complete; he then was put to bed, kept moderately cool, and the maturation went on as in the mild ſort of ſmall-pox, and he had not a bad ſymptom during the whole progreſs of the diſeaſe; he was purged as uſual at proper diſtances, and he enjoyed perfect health, after his recovery.

The ſingularity of this caſe, and the treatment of it being quite new, made me very deſirous of hearing the Doctor's reaſon for his conduct. I told him, I thought the ſteps he had taken were rather hazardous; he then aſked me if, as a ſurgeon, I would not endeavour to prevent inflammation running too high in any tumor, where matter was *intended* to be formed? I told him, certainly ſo, as it was always my practice in the *anthrax*. He ſaid, in the ſmall-pox, that an *early* eruption, with great inflammation, was like the

anthrax,

anthrax, and muſt be ſo treated, or otherwiſe the whole ſkin would ſphacelate, and no matter be formed; but, that the milder ſort of the ſmall-pox might be compared to ſo many *phlegmons*, which if the body is not too much heated, will certainly gradually be filled with matter.—I aſked him why he was ſo rapid in his evacuations? He ſaid, there was no time to be loſt to give a chance for life; for if they were made gradually, it had the ſame effect, as too ſmall engines would have on a houſe in flames, only ſerve to make it blaze with more violence. The caſe I related to ſeveral men of eminence in phyſic, at the time it happened.

THIS practice being ſo different from what I had ſeen, made me a little attentive to *Sydenham*'s method of treating the ſmall-pox when I inoculated; but ſuch was the prejudice, at that time, in favor of cordials to aſſiſt nature, in throwing off the peccant matter to the ſurface of the body, that I am thoroughly convinced, by confining the patient to his bed, as ſoon as the firſt ſymptoms of the diſeaſe come on, and by endeavouring to ſupport the eruptive fever, as alſo, denying any freſh air within the curtains, does always occaſion the diſeaſe to be more violent, and as Doctor *Baker* juſtly obſerves, I make no doubt

doubt but that this method has been fatal to thouſands.

It has been aſſerted, that where ſymptoms of the ſmall-pox have come on, tho' the moſt violent evacuations have been made, and the patients expoſed to the cold air, nevertheleſs, though it *retarded* the eruption, yet it never could prevent it; if ſo, and, that the later the pimples appear, the more mild will be the ſort; I ſhould think thoſe will be in the right who keep their inoculated patients up in cool air till the eruption is *complete*, and their bodies kept ſoluble by proper food or medicine, as occaſion may require. So far I agree with the antient practitioners and modern adventurers.

From the time of infection to the commencement of the eruptive fever, I do not permit patients of a plethoric habit to eat animal food, but to live on vegetable diet, with toaſt and water, or barley water, by way of drink at their meals, and tea or thin chocolate for their breakfaſt; if, at the uſual time I do not find the inciſions look florid, and the lips thickened, or hard to the touch, I frequently recommend chicken for dinner, and add a little wine to the water at that time, to ſome tender children whoſe circulation is languid; but in general, wiſh that the

the body may be kept open by the diet, or ſome gentle aperitive.

An itching about the inciſions is the firſt ſymptom of the infection being taken; and a pain in the axilla is generally the fore-runner of the eruptive fever. This pain is ſucceeded by a languor, rigors, quickneſs of pulſe, tongue dry, with a pain in the head or back, which will go off for a time, and then return again with violence. Though it is remarkable, that great pain in the back is a very alarming ſymptom in the natural ſmall-pox, yet from inoculation it is not always ſo, as it generally goes off on the eruption being complete, as well as every other complaint made on the firſt attack of the fever.

During this feveriſh ſtate, the breath is very offenſive, and, I believe, contagious, and the inciſions become little ſloughs, but do not diſcharge; there is ſometimes an efloreſcence on the ſkin, attending the pimples on their firſt appearance, but this generally goes off at the time the matter appears in the puſtules.

Sometimes there is a ſort of raſh mixed with the true ſmall-pox pimples; and if the ſymptoms of fever do not run high, this is

not dangerous; but now and then there is an ugly livid appearance on the ſkin, in blotches. This is a mark of high inflammation, and patients in ſuch caſe ſhould be kept as cool as poſſible, with conſtant change of air, and diluted plentifully with ſmall liquors, well acidulated with gas ſulphuris, or ſpir. vitrioli; otherwiſe there will not be any matter in the pimples; for cordials *at this time*, will turn the whole ſkin into a ſlough: But when the matter begins to diſtend the puſtules, thoſe livid blotches generally diſappear, and bliſters often become neceſſary to fill thoſe on the extremities: when the face ſubſides, and the pulſe is languid and low, even *a little* ſack may be proper to keep the matter on the ſkin; when maturation has ſeemingly been at a ſtand, and the pulſe feveriſh, a ſtool or two procured by a clyſter has immediately filled the puſtules; tho' purging medicines at this time are thought hazardous, yet I have always found advantage from the body being kept open; at leaſt, we ſhould not ſuffer coſtiveneſs to continue in any period of the diſeaſe. But from the very beginning, it is obſervable, that *Sydenham* leans towards the cool method. "If my own Son, ſays "he*, was to have the ſmall-pox, (unleſs "ſomething extraordinary was to happen) "I would not ſuffer him to keep his bed "till the firſt appearance of the eruption,"

 or

* *Lib. cit.* p. 34.

or rather, I ſhould think, till the eruption is *complete*; " nor would I allow more fire in " the room, or more cloaths on the bed, " than what he is accuſtomed to, when in " health. *May*, *June*, *July* and *Auguſt* *, it " ſeems, are the months preferred as the moſt " ſeaſonable" for the new method, and are certainly, the propereſt for the operation, if the patients are to be turned into the ſtreet as ſoon as any eruption has made its appearance." We do not find that the pimples in general maturate, and indeed, it ſeems not to be the object of the inoculator, the eruption is the whole of his care. †" No confinement, even " to the houſe, was required, except during " a few hours, while the fever continued." For after *that*, they are turned out of doors, to do as they pleaſe; and if prejudice does not bias thoſe who *had* inoculated the moſt, preference was always given to the *Spring* and *Autumn* as the moſt moderate weather; and if the intelligence of Dr. *Monro* is to be relied on, the coldeſt weather is no objection to the operation: Now the concluſion muſt be, that there cannot be any exception to any month in the year, and tho' it may ſeem extraordinary *that many of the inoculated* people went abroad barefooted in the northern parts of *Scotland*, we might as well quote ſome of ours that did not wear gloves.

SECT.

* *Lib. cit.* p. 7. † *Lib. cit.* p. 18.

SECT. V.

Of the Effect of Cold Air.

HERE I muſt again diſſent from thoſe gentlemen who act on the above plan.

THE intention of inoculation is to raiſe ſuch a fever by the inſertion of variolous matter, as may bring about that depuration of the blood, which nature ſeems to intend by the diſeaſe in the natural way, with this advantage of having prepared the ſubjects for the reception of the variolous particles, and by knowing the ſtages of the diſeaſe, being enabled to keep it under our dominion; and as leſſening the heat and inflammation in the eruptive fever is of the greateſt ſervice in rendering the diſeaſe mild, ſo when once *the eruption is perfect*, which we may be aſſured will be by the end of the fourth day from its firſt appearance, (tho' the greateſt puſh is generally made in the third night) I then generally recommend my patients to be kept in bed, if the weather is cold, as the warmth of the bed cannot *at this time* alter the *ſpecies* of the diſeaſe, nor increaſe the number of pimples,

but muſt, like a general pultice, forward *the maturation*, which ſeems to me to be the general advantage that ſhould be expected from the diſeaſe.

I AM aware that both in the natural ſort, and that from inoculation, there is a warty kind that do not become puſtules: this may be owing to the want of the *vis vitæ* that is obſervable in weak patients, and I am fully convinced, that too long preparation, eſpecially in weakly children, has prevented nature from making that ſalutary depuration of the blood, that ſhe moſt likely would have done if left to herſelf, as is obſervable in the caſe, *p.* 9.

I HOPE I ſhall not be miſunderſtood here, as it was fartheſt from my intentions to deprive the patients the advantage of *breathing* freſh cool air; I only mean to keep the *pimples* in that ſtate, which will forward maturation, and not by expoſing *them* to the very cold air, either retard *them* in their ſuppuration, or totally prevent it.—However light the gentlemen who are accuſtomed to turn their patients into the ſtreet, as ſoon as the eruption is perfect, may make of this, I will appeal to the obſervation of every man who has attended this diſeaſe, that often on taking up patients to make their beds, by checking of perſpiration and expoſing the tumefied pimples

ples to the cold air, that rosy hue that encircles each pimple has vanished, and the patient has become sick, with pain at the stomach, and often reaching, sometimes faintings, which on being put to bed, and a *necessary cordial then administered*, has all gone off again.

THE bringing to life people that have been suffocated by noxious air is no new thing, if fresh air is timely administered. Whether their appearing as dead, was owing to drawing in the pestilential air from the mouth of a ventilator, or the putrid and stagnated air of a well, or that confined within the curtains of a close room, in the most malignant kind of the confluent small-pox, the cause is the same, and the same remedy will almost as constantly relieve, and revive the patient; but still we do not find the patients left out in the streets, or carried into a cellar, or laid without a shirt, by way of bringing the pustules forward.—The heat, as I have said, is often too great to effect it; I have often seen spirit of vitriol, decoction of the bark, with some neutral salts, or even a clyster to give a stool at that time, in a few hours plump up the pock, which, for some time before seemed in a state of rest.

IF

If the fever is increaſed by reſtleſſneſs from the ſoreneſs of the puſtules, the ſame advantage, after a ſtool, will be obtained by opiates acidulated with the *elixir vitrioli*.

If *Sydenham* does allow that the cold air retards the eruption, will it not for the ſame reaſon prevent maturation of the pimples? or is it a new doctrine, that in caſe matter is hindered from forming where nature intended, to have it fall on ſome other part? or is it not univerſally known, that *matter* will retire and be tranſlated to a very diſtant part? If ſo, to encourage it forming on the ſkin, and keeping it there till it dries away in ſcabs, as is the natural progreſs of the diſeaſe, ſhould, I imagine, be the plan of giving the ſmall-pox to the advantage of the patients.

I am ſtrongly of opinion, that the diſeaſe may be ſuppreſſed for a time, either by reducing the patient too low, in the preparatory courſe for the operation; or by giving briſk purging medicines during the eruptive fever, which I have been told has frequently been the caſe amongſt thoſe who were inoculated on the modern plan, and had no pimples during this light fever; yet on returning to their uſual exerciſe and diet they have

have had a plentiful eruption, which maturated well, and proved to be the true *variolæ.* —In ſupport of which, I will add a remarkable caſe which was under my care laſt autumn: A child about three years old, of a lax habit of body, after being prepared as uſual, was inoculated in both arms, by a thread which had been well wetted with matter, taken from a ſubject, the parents of my patient had the higheſt opinion of: after the operation was over, I perceived the bottle in which the thread was brought to me had a dew on its inſide, on ſmelling to the phial, I found it was lavender-water which hung about its ſides. I then told the lady who was mother of the child, I was apprehenſive that it would not take, as poſſibly the ſpirit might deſtroy the activity of the matter; the thread remained on the inciſion 48 hours, and came away *quite dry*, which is not always a prognoſtic of its not having taken place; however, there not appearing the leaſt ſign of infection either on the inciſions or in the pulſe, in a fortnights time the child was inoculated again, with freſh matter, which ſeemed to have taken by the threads being moiſt when taken off, after 48 hours remaining in the inciſions; on the 4th day after the operation the arms were again examined, the lips of the wounds were thickened and inflamed, had diſcharged an

ichorous

ichorous matter, and ſeemed to promiſe ſucceſs to our ſecond operation; about the 7th day, ſymptoms of the eruptive fever came on, but a violent diarrhœa immediately following, the febrile heat abated, the inflammation of the arms went off, and every other ſymptom that portended an eruption of *variolæ*; a few days after, on the purging being ſtopped, the fever came on again, the child was put to bed, and ſome cordial medicines were given, in hopes to raiſe a fever ſufficient to throw out the matter on the ſkin, but the diarrhœa returning, our endeavours again proved ineffectual; the child was then treated for the diarrhœa, and a more liberal diet was directed; the fever then came on a third time, and the inciſions once more threatened inflammation. In order to invite an eruption, more particularly to her arms, I ordered pultices to be applied repeatedly in the day, ſurrounding the arms from the axilla to the elbow: by reſtraining the purging by proper medicines, the fever was kept up for three days, and a plentiful eruption of pimples on the arms appeared on the ſecond day of this laſt invaſion; the arms grew violently inflamed, diſcharged at the uſual period, and the puſtules became replete with matter, and dried off according to the common courſe of the diſeaſe. My opinion being aſked, Whether I thought the child was ſafe

from the diſeaſe for the time to come? I anſwered, that in caſe the pimples had been conſequent of the *firſt* feveriſh attack, and had maturated and gone off, as on the laſt return of the fever, I ſhould have without the leaſt heſitation pronounced it the ſmall-pox; but it was *my farther opinion* that the ſeeds of infection had been prevented from acting by the diarrhœas ſuppreſſing the fever from time to time; and, on that being ſtopped, the ferment having been again raiſed, the eruption ſucceeded, and I really believed the child had now had the diſeaſe and was very ſafe; however, if it was my own child I would certainly give it another trial to obtain ſecurity, the next year, when a younger child was to be inoculated. Since when, I have heard that the child has been inoculated again by the moſt celebrated of the wholeſale dealers, and not the leaſt change happening at the puncture, or any degree of fever following the inſertion of the matter, he declared that the former inoculation had taken place, and the child was quite ſafe.

SECT. VI.

Of other Eruptive Caſes.

I HAVE been often ſurprized at the method of treating eruptions, in general, by *very many* people who profeſs phyſic, who, if they can but get rid of the pimples, raſh, tetters or blotches, by bleeding, repeated purges, nitrous, or other cooling medicines, are extremely well ſatisfied on their diſappearing, and ſuppoſe the cure effected; which, indeed, is ſo very rare, that I am amazed, the diſeaſes appearing in ſome other ſhape ſoon after, does not ſtrike them; ſuch as, complaints in the ſtomach and bowels, pains about the joints, loſs of appetite, cough, head-ach, being extremely liable to get cold, which, being owing to ſome *occult quality*, become *nervous* as they term it; ſome of theſe ſymptoms, returning again and again, from obſtructed perſpiration; and if advice is applied for, immediately ſymptoms are attempted to be relieved, and nature is ſeldom encouraged in carrying on the work ſhe had begun.

I HAVE

I HAVE ſeen the moſt amazing ſucceſs of pains about joints, and the nocturnal pains in venereal caſes being inſtantly removed, by firſt bathing in warm water, and cleaning the ſkin well, and immediately afterwards giving a doſe of *Dovar*'s powder; a plentiful eruption has frequently been produced, according to the nature of the leaven; and by determining the humor to the ſkin, where nature had poſſibly made ſeveral efforts to get rid of the diſeaſe, but had been prevented, by too precipitately getting rid of ſymptoms; ſhould the caſe prove venereal, the ſpecific is known; any former eruption untimely ſuppreſſed, or not encouraged to ſpend itſelf on the ſkin, when it firſt appeared, ſhould, (I am convinced from experience) be ſupported by ſweats twice in the week, lying in blankets, during their operation; and by giving a ſtrong decoction of the bark and ſarſaparilla on the intermediate days, many have been reſtored to health. The great number of ſcorbutic ſore legs that have been cured by a courſe of this kind, which had reſiſted mercury, bark, antimonials, and every other method that had been tried, has prejudiced me in favour of the plan, and where-ever I could trace, that the ſymptoms and complaints had been in conſequence of a humor ſuppreſſed, and, every now and then, making efforts, but in-

effectually on the ſkin; where this is the caſe, I hardly ever remember it to fail; and, in the progreſs of cure, generally ſome eruptions have appeared on the ſkin, and the patients have inſtantly been relieved from the other complaints. I have formerly offered my ſentiments ſlightly on this ſubject, and have daily more reaſon to be convinced that nature may be *relieved*, by increaſing ſome other ſecretion, in *lieu* of thoſe obſtructed, that is, palliatively; but I know that the patient cannot ever be reſtored to *perfect health*, till whatever glands may be obſtructed, can be reſtored to their priſtine offices.

SECT. VII.

Of the Time of Purging.

THOUGH purging is often prescribed before the scabs are dry, yet that seems always a matter of necessity, and not of choice; for when the load of humor is too great to be carried off *by the skin*, nature spontaneously, very often determines it to *the intestines*, and saves the patient's life, if not prevented, by astringents; so when the pustules grow flaccid, and the matter retires, a powerful purge is often given with manifest advantage; but where we are told that fifteen pustules are often, and most frequently the fullest compliment, why in such a hurry for purging? *To prevent boils* *, you are answered; why, that is honest; for it is highly probable, if the ferment is raised, and the blood not depurated by the skin, *those* would be the consequence, if not something worse: The residuum ought therefore to be carried off by the intestines.—But may we not ask, are there not ever instances of this *said enemy* being *only down* in the battle? and, tho' he may not ever be able to shew his face, as

* Dr. *Baker*'s pamph. p. 14.

as he intended, in the character of the ſmall-pox; does he not ſometimes, after a little recruiting, teaze and torment in a variety of forms, ſo as to deſtroy the patients, tho' he is ſomewhat tedious in the execution?

THE management of patients, after the diſeaſe is ſeemingly over, is certainly of more conſequence than is implied by the practice of giving a doſe of ſalts.——Indeed, in caſe of a large eruption, *thro' the irregularity* of the patients, two doſes may be neceſſary, but *all* who ſtrictly follow directions, have the diſeaſe in ſo light a manner, as, I ſuppoſe, not to exceed fifteen pimples, *unleſs they deſire it.*

HOWEVER, this is certain, that the blood becomes inflamed by the diſeaſe, often requires bleeding, cooling medicines, and aſſes milk; the acrimony of the humor that often ſhews itſelf, after the ſmall-pox puſtules are dried, demands ſome attention to prevent its accummulating or falling on ſome of the viſcera; and the very gradually returning to their uſual diet, when in health, is of the utmoſt conſequence; for the benefit *from the ſudden change*, from low to full diet is not ſo great, as is ſuppoſed to be derived from the reverſe, in the preparation for inoculation.

It has been thought, that infancy was the propereſt time for giving the ſmall-pox to advantage; but the age of the patient is now no objection to the operation. The objections againſt children at the breaſt being inoculated, are ſo many, that I am ſurpriſed parents will perſevere in that practice, after the dangers are laid before them; for the ſtate of the bowels in infants makes them ſuſceptible of diſorder, from the ſlighteſt irritation, which often proves fatal: This may be brought on by irregularity in the diet of the nurſe, or the affection of her mind, and will therefore produce convulſions, which, alſo frequently ariſe from cutting of the teeth, if poſtponed, till that chance is againſt the ſucceſs of the operation. The point that induces many to inoculate, is, to prevent the havock frequently made on the face, by the malignant ſpecies of the ſmall-pox, in the natural way: In this period of life, experience ſhews, that theſe ſubjects generally ſuffer moſt in their faces; for in order to keep the child quiet, when the fever comes on, its face is almoſt conſtantly preſſed againſt the nurſe's breaſt, which becomes a ſort of cataplaſm to the part, and induces a greater flux of variolous matter thither, ſo that it is in general the fulleſt part; beſides, the heat of the nurſe's body is greatly contributory to the

malignity

malignity of the diſeaſe, as keeping the ſubject cool is the ground-work of ſucceſs, till the eruption is complete.

I HAVE ever been of opinion, that when we induce the diſeaſe, to prevent the uſual ravages in the natural way, we ſhould moſt certainly give it under every advantage propoſed, and not to hazard a diſcredit to the operation, from a diſeaſe peculiar to very young children, and *more frequently fatal to them, than the ſmall-pox.*

OTHERS refuſe not patients, if turned of fourſcore, provided they undergo the uſual preparation: The minds of adults are certainly more affected by the apprehenſion of danger, than childrens, yet the proportion of thoſe that have miſcarried, is certainly much greater in thoſe at the breaſt, than in all others from two years old to fifty.

IT has been a diſputed point, at what particular period of the diſeaſe, it is infectious. This cannot, I believe, be aſcertained to the ſatisfaction of contending parties; but we have known children taken away from the ſervants, that attended them, on the firſt ſuſpicious ſymptom of the ſmall-pox, and though carried at a great diſtance from the perſon, who proved afterwards to have

the diſeaſe, have, notwithſtanding, ſome days afterwards, been ſeized with it; this then muſt be in the breath; but the moſt likely time of receiving it, muſt be, when the air is moſt impregnated with the effluvia, which is from the time of the maturation, till the ſcabs fall off.

It is certain, that apprehenſions and ſurprize, will raiſe that ferment in the blood which is neceſſary to produce the ſmall-pox; and this much more ſudden, than where we know the variolous matter is inſerted into the blood, for that ſeldom appears before ſeven or eight days after inoculating; yet, ſurprize is capable of producing it in a very few hours.

A remarkable caſe of this kind, I was told by a phyſician, many years diſtinguiſhed as the firſt in his profeſſion, who ſaid, that he was at that time attending a lady celebrated for her great beauty, who had received the ſmall-pox, by being much frighted, by another lady the preceding night, at the play, who was ſitting next to her, and obſerving a beautiful fair face, addreſſed her, by ſaying, Madam, I fancy you have not had the ſmall-pox; to which, ſhe anſwered, ſhe had not; the other replied, I ought then to remove farther off, as I am but lately recovered of

that diſorder, tho' I had it very favourably; the lady who had not had it, begged her to keep her ſeat, as ſhe herſelf choſe to go out, which ſhe did immediately; and within 24 hours, the moſt malignant ſmall-pox appeared, that the Doctor ever ſaw.

THIS, it will be ſaid, might ariſe from effluvia of the variolous matter; but the next obſervation will put it out of diſpute, that apprehenſions alone, will occaſion a ferment ſufficient to produce the diſeaſe. A lady, who had not had the ſmall-pox, going to ſee a friend in *Windſor Foreſt*, ſtopped her chariot at the door, and was going to alight, but was prevented by the lady of the houſe, who told her, ſhe would not aſk her to go in then, as her huſband was ill of a fever, which they apprehended would turn out the ſmall-pox; ſhe immediately went home, was taken ill, had the ſmall-pox, and died: Now, here could be no variolous effluvia, as the gentleman ſoon got well, and had not the ſmall-pox at that time.

I HAVE lately heard of great numbers that have ſuffered in their health, ever ſince they were inoculated, and treated on this modern plan: and of others, who, though they were thought ſecure, by the operations they had

had undergone, have afterwards had the diſeaſe in the natural way.

THIS laſt accident, poſſibly, may only be in proportion to thoſe who have been inoculated in the uſual manner; and where from the diſcharge of the arm, and two or three anomalous pimples appearing, that have not maturated, they have been ſatisfied, hearing that two are as good as two thouſand, and have perſuaded themſelves into a ſecurity which has ſometimes proved fatal; and, very often, tho' unjuſtly, brought diſgrace on the practice in general, by people's aſſerting, that many have had the ſmall-pox in the natural way, after inoculation. —Now, where the fever does not remain for three days, at leaſt, the arms inflame, and the pimples become replete with matter, it is but right, always, to put people on their guard, to avoid infection, till the operation has been again repeated, and every circumſtance neceſſary to aſcertain the fact; for want of this caution, we are told, that many loſt their lives in *Paris* after the epidemical phrenzy, for inoculation, in the new way there, which, in general, neither occaſioned fever nor eruptions.

IT has been aſſerted, by the enemies to inoculation, that more have died of the ſmall-

pox, ſince that practice has been adopted, than ever died of it before, which, they prove, it is ſaid, by the bills of mortality, for ſeven years laſt paſt; and may eaſily be credited, when infection is brought into every neighbourhood, and even turned adrift in the ſtreets, and ſent into every houſe. This being the caſe, one cannot wonder at the contagion ſpreading, and that perſons receiving infection in an improper and unprepared ſtate of the blood, ſhould fall a ſacrifice to this indulgence of the patients, of the preſent ſet of Inoculators on the new plan.

THIS, ſure will be hint ſufficient to the humane, to guard againſt cruelties which often prove fatal, or elſe it will certainly become an object of thoſe in authority, as was the caſe in *France*, and that owing wholly to the indiſcretion of a celebrated inoculator, who gave the diſorder *without the ſenſible effect*, of either fever or eruption; but, unluckily many of his patients ſoon after had the diſeaſe in the natural way.

I HOPE I have throughout the preceding pages made my remarks on the preſent practice of inoculation, without rancour againſt the practitioners; and, I am ſure, my only purpoſe is, to come at the moſt ſafe method of *giving* the ſmall-pox, and conducting pa-

tients thro' the diſeaſe, ſo as to obtain every advantage we expect from the diſorder, in the natural way, without the danger that too frequently is attendant, when it is received by the lungs in an unprepared body.

It is certain, that the great numbers who have been inoculated of late years, with the happy ſucceſs that *ſeemingly* attended the practice, has, in a great meaſure, removed the apprehenſions of danger from inoculation; *thus far* ſure the public is obliged, to thoſe gentlemen in the different counties, who have dealt, as we may call it, in the wholeſale way; for by the preparation of the ſubject, the diſeaſe is rendered ſo very light as to be no ways alarming, and hardly any confinement is thought neceſſary.

If we conſider the diſeaſe, given in this manner, without the leaſt riſque of life, or loſs of beauty, to the more delicate ſex, or any confinement to the patients in general; can we wonder at a partiality in favor of that practice; if we could ſee *it only* in this light, it would be unpardonable prejudice in any to oppoſe it: But I have ever been diſſatisfied with the accounts I have had of people being expoſed to the cold air the moment *the eruption was perfect*; I ſhould imagine, from moſt of their patients recovering, the adventurers

turers became intoxicated with ſucceſs, and they then wantonly riſqued the future health of thoſe who had put themſelves under their care, merely from an affected *novelty*, carried to exceſs, which is almoſt always ſure to ſucceed for a time, and, the people are often as much intoxicated by report in favour of any thing they are unacquainted with, as the wonder workers themſelves: Theſe people are not unlike the enthuſiaſtic fox-hunter, who's horſe having, to the ſurprize of every body, leaped over a river that meaſured ſeven yards; at length perſuades himſelf that he can go over one that is fourteen wide, and cannot be convinced of the abſurdity, till he puts it in execution, and finds himſelf and his horſe in the middle of the ſtream.

But what is become of all our caution about receiving infection, by the head or lungs? or the *great objection* to inoculation, leſt any other humor ſhould be introduced with it? when the firſt perſon that offers, infant or adult, good or bad conſtitution, is now thought *a proper* ſubject to inoculate from, and not the leaſt objection is made to the perſon, provided he has but the ſmall-pox.

THE gentlemen who inoculate by the groſs, or by the hundred, I am told, think, if their patients have ſo much of the diſeaſe, as the fever and eruption, and do not die, the ſucceſs is to warrant the propriety of the practice; to this, it may be ſaid, they have done all they pretend to; it cannot be thought or expected that they ſhould traverſe the ſeveral counties again, to ſearch for diſgrace: But it certainly behoves all thoſe who are well acquainted with the effects of this new plan, be they good or bad, to ſend an authentic account, with the people's abode, that the public may be benefited in futurity, by adopting any real improvement, diſcarding abſurdities, and eſtabliſhing a practice founded on experience.—This may very eaſily be done, without mentioning the perſon's name that inoculated the patients. As it is the fartheſt from my intention to injure any one, I ſhould hope that every honeſt man would rather rejoice to be led out of an error, than be offended at the conviction; and would inſtantly diſcontinue whatever would be prejudicial to his patients, either in preſent or in future, and chearfully adopt whatever might ſeem to their advantage.

POST-

POSTSCRIPT.

SINCE the writing of the preceding obſervations, I have, with the greateſt pleaſure and attention, red over the treatiſe on Inoculation, by Dr. *Dimſdale*, where accurate obſervations have been reduced to practice, without prejudice or partiality to ſyſtems; and the author, like an able and experienced phyſician, has varied his plan according to the circumſtances of the caſe.

THE idle and even ridiculous reports, that have been ſo frequently propagated by the eſpouſers of the itinerant operators, at firſt raiſed only a ſmile in the ſenſible part of mankind; but when hiſtories of the good ſucceſs were related by thoſe, who became partizans to this ſuppoſed improvement in the practice of Inoculation, and not to the operator, the ſubject claimed the attention

of the moſt eminent profeſſors of phyſic, and ſurgery; as well as of thoſe out of the profeſſion, who were objectors to the practice in general, from its ill ſucceſs among ſome few of their acquaintance.

Too haſty concluſions often become alarming to the inhabitants of this metropolis, in *ſuppoſed* epidemical complaints; for a few ſore throats, ſcarlet fevers, or other diſeaſes, happening within the narrow circle of a few intimate friends, immediately the diſorder has the epithet *very rife* applied to it; and if one or two of thoſe ſhould chance to die in a few days, it is termed *the plague*, whatever the diſorder may be: though it had proved fatal to hundreds the preceding month, if not known to them, the weekly bills are ſuppoſed to contain nothing more than uſual, and the town is as healthy as ever, in their opinion. 'Tis ſo here; and we ought to be upon our guard, as to the foundation of ſuch determinations.

By the new method of treating patients during the progreſs of Inoculation, danger was underſtood to be intirely out of the caſe, confinement no ways neceſſary, all ſeaſons of the year alike, and neither time, nor ſex, nor age objected to; the number of puſtules

tules was to be *ascertained*, according to the caprice of the patients: And *the rectors, churchwardens*, and overseers of the poor, certifying, for the truth of the operators, success of hundreds, in their respective parishes: Who then can doubt it?

In consequence of which, a few idle unengaged days were fixed on, for a party to be inoculated, with as little concern as formerly to be electrified.

Facts, it was said, were stubborn things; and so they are, but *audi alteram partem* is a maxim in law, and so it should be always, before hearsay accounts should be established as facts. When I have doubted as to the authenticity of what I heard, I could see a suspicion, that self-interest was the great obstacle to my credulity; therefore, I said but little, and waited for better authority. I had so many accounts the last autumn, of the ill consequences of this practice, that I was determined to obtain a fair and candid account of the success, from the then fashionable and extraordinary treatment of patients inoculated in some particular counties nearest this metropolis; hoping that from this enquiry, a general plan might be established, for the benefit of mankind, during every stage of the

ſmall-pox, as well in the natural way, as from Inoculation.

Soon after, a pamphlet was publiſhed by the learned and ingenious Dr. *Baker*; and another by Dr. *Glaſs*, a very eminent phyſician, at *Exeter*; but, as they ſeemed to differ in opinion, as to the general conduct of the diſeaſe, and, have not eſtabliſhed what I intended, I was induced to collect the remarks I had made from time to time, and to begin to methodize them for the preſs. I ſhould have publiſhed them the latter end of laſt year, but hearing by ſome of my friends that Dr. *Dimſdale* of *Hertford* had inoculated many hundreds, and treated them according to the *new plan*, with the greateſt ſucceſs, and that he was then about to publiſh his obſervations; this private account being ſoon followed by an advertiſement in the public papers, of the Doctor's determination of putting them immediately to preſs. I concluded, my intentions would be fully anſwered, as thoſe who know this gentleman beſt, have always diſtinguiſhed him as a moſt accurate obſerver of diſeaſes, as well as eminent for ſkill in every other branch of his profeſſion. I therefore returned my papers to their place, waiting in daily expectation of a fair and candid account of the Doctor's experience. The book has now

appeared, and, I cannot ſay, I am at all diſ-appointed: I hope the public will now be diſabuſed, and take their time for reflecting on the abſurdities that have of late taken poſſeſſion of their underſtandings; and that the practitioners of inoculation, on the *new* plan, will not ſuffer themſelves to be any longer miſled by clamour and faſhion, contrary to reaſon and experience.

As the Doctor *in general* ſeems to fall in with my ſentiments of conducting the diſorder thro' its different ſtages, I ſhall take the liberty of quoting ſome paſſages from his book, in ſupport of what I have mentioned in the foregoing pages; and where my experience occaſions me to diſſent from him in opinion, I am ſure of his excuſe, as the *ſalus populi* is as much his intention as mine.

PAGE 8, the Doctor's reaſons againſt inoculating at the breaſt are nearly the ſame as mine; * but, page 11, he adds another objection; the difficulty there is of making children of that age take proper medicines, and indeed, I might have added, or of finding out their complaints; and, certainly, as he obſerves, it is reaſonable to conclude, that many infants die for want of medical help, by their refuſal

* *Vid.* p. 39. preceding.

refuſal of medicine, and not unlikely ſometimes given improperly, from not knowing their complaints, but by gueſs.

PAGE 12, I freely and gratefully acknowledge to have received inſtruction from the Doctor's experience, that ſcrophulous and arthritic habits are no objection to the operation, no more than thoſe of people who are intemperate and irregular. I have inoculated ſome who were ſuppoſed of a groſs habit of body, who have come off much better than reaſon and inexperience prognoſticated, and, as I have advanced *, *children of ſcorbutic habits have been benefited in their general health, by inoculation, eſpecially where there happened a plentiful crop of puſtules.* I therefore conclude, that what the Doctor has upon repeated trials found no ways hazardous, may be of advantage to the patient: I cannot but ſay, I have a ſort of prejudice againſt undertaking a patient where the preparatory regimen does not bring him to that ſtate, that I ſuppoſe moſt advantageous to receive infection; for certainly we ought not to ſet out with any manifeſt chance againſt ſucceſs; but theſe are only *my ſentiments*, and will carry no farther weight with them but as ſuch.

PAGE

* *Vid.* p. 6. preceding.

PAGE 13, As to the ſeaſons, experience tells me, that a room may be made ſufficiently warm in winter; and if advantage ariſes *from the inclemency of the winter* to inoculated patients, *the ſummer*'s heat, I ſhould think, would be an objection, though they were permitted to walk in the ſtreets the whole time. —As for my own part, *that* is the only ſeaſon I would wiſh to avoid, as we cannot always inſure a very light ſort, the hot weather is not ſo favorable as a cooler ſeaſon.

PAGE 17. Here appears the ſenſible and experienced practitioner, in preparing his patients; if in too high health to reduce, if too low to ſtrengthen the conſtitution, and bring both to that ſtandard of health, as may give the beſt chance for carrying the patient thro' the diſeaſe: This I have taken notice of before, as neceſſary, in oppoſition to the empirical plan ſaid to be practiſed by the itinerant operators, who treated all adults alike with mercurials and ſalts, and children with mercury only.

THESE general rules are fit only for ſuch kind of practitioners; but the Doctor always proportions the number of doſes to the age and ſtrength of his patient's conſtitution.

I AM

I AM ſorry to differ from the Doctor, in reſpect of the manner of communicating infection to a patient *.

WHEN patients ſit in the ſame room with others who have the ſmall-pox at the height of maturation, they generally become infected; to prevent which, this operation was introduced: And, I have known people who have thought, that the whole depended on preparing the body for the reception of the effluvia of variolous particles; and, in conſequence of that, have paid dear for their experiments. I do not mean to diſturb the peace of any who have ſuffered by theſe trials, but to caution others to be more prudent. Let them perform the operation in what manner they pleaſe, I am certain, that we cannot infect the blood twice with variolous particles, no more than one can fire a train of gun-powder at each extremity, at a ſmall diſtance of time, from the firſt touch of the lighted match; nor is it material whether it is done with a ſingle ſpark of fire or a red hot bar of iron; but whether the ſmall-pox ſhould be communicated by effluvia received at the mouth and noſtrils, or by inſertion of variolous matter into ſome wounded veſſels, I believe cannot be a matter of doubt at this time.

PAGE

* *Vid.* p. 8. preceding.

PAGE 28, If matter for inoculation ſhould be taken during *the eruptive fever*, it muſt certainly be from the place where it was inſerted; but this I never tried, having always choſe it from *a puſtule*, during its ſtate of inflammation round the *ſtool*, and before the matter is too viſcid.——But one thing I can ſay from experience, that matter taken from the inciſion, after the puſtules were dried, did not produce the diſeaſe.

As for application to the inciſion's diſguiſing the natural appearance of the infected wound, I cannot ſay I ever found it; a piece of dry lint and ſome plaſter, to retain it on the part, is leſs liable to irritate the inciſion, than if left to the rubbing of the ſhirt and cloaths; ſometimes, indeed, I have thought any application unneceſſary after the thread was removed, till the time of the eruptive fever. I have given my reaſons for pultices on the arms, at that time, where the inciſions were made.——Freſh matter is certainly the beſt, though I have ſucceeded by a thread that had been impregnated with matter nine months before; others, I am told, have kept it much longer, and have produced the diſeaſe by it when they have inoculated.—— I know, that once when I was preſſed for time, by the parents of ſome children inſiſting on

its being done immediately, that I ſent to a gentleman of the profeſſion, who had ſome by him, that he had kept only a fortnight; yet not one of four took the diſeaſe, tho' they were inoculated in both arms; and by freſh matter inſerted in the arms, about a fortnight afterwards, they all had the diſeaſe extremely well.

I CANNOT find any particular light is to be obtained, by examining the ſtate of the arm by a glaſs, or the naked eye, more than what I have taken notice of already; nor do I comprehend the intention of giving mercury at this period of the progreſs of infection, otherwiſe than to procure ſtools, and keeping the body daily ſoluble, I ſhould imagine, will prevent inflammation running too high, at the time of the eruptive fever; but, *to prevent it wholly*, I ſhould think, is deſtroying the intention of the operation. In caſe the circulation is too languid, and the patient too much lowered, I mend their diet, and increaſe the inflammation of the blood, in order to bring on the eruptive fever in due time—I cannot but ſay, that, till I heard of patients going about till the ſymptoms of the eruptive fever came on, I was ſo far kept in awe, by the practice of thoſe, who had been before me, as to confine my patients on the ſame floor, with the rooms open, and the

air

air to be changed as they went into a different room, with this caution, never to hazard getting of cold; but now I ſend them out to take the air and their uſual exerciſe, and never permit their going into bed in the day, unleſs a ſwet comes on, during the eruptive fever, *then* they drink warm liquor, but till then, cold barley water, or toaſt and water, as their thirſt may require; but in caſe there ſhould not be any moiſtneſs on the ſkin, I always keep them up *till the eruption is complete*; as for my treatment afterwards, I have already given my reaſons.

THE Doctor's method at page 36, I think, does not differ much from the practice I have generally followed of late, except in giving "a mercurial purge at the approach "of the eruptive fever, and being kept a-"broad in the open air, be it ever ſo cold;" indeed he has an exception, *viz.* "unleſs the "weather be extremely ſevere, and the con-"ſtitution very delicate." If the air is mild, I never object to their going out, during the eruptive fever, and, in general, the ſymptoms are alleviated by it. —The pimples coming out on the ſkin has been thought by ſome, to be a ſufficient ſecurity againſt the diſeaſe for the future; but the Doctor, I find, mentions *maturity*; if this is the caſe, without doubt,

all is obtained that can be wiſhed for, if not, I have given my objections to the practice.—The Doctor, page 37, in caſe of languor allows broth, wine-whey, or wine alone; therefore *cordials* are allowable ſometimes, and have their turn, with cold water, according to the neceſſity of age or conſtitution, nay, ſometimes after the eruption is completed, if occaſion requires, boiled mutton, veal or chicken; when there is *a plentiful eruption, the Doctor has confined his patients to the houſe.*——I do ſo generally, after the eruption is complete, till the cruſts are dry. ——He ſays, page 40, maturation appears rather advanced than retarded, by a very mild laxative now and then given; this I have often experienced, but choſe rather to rely on clyſters, than a purgative by the mouth, as I always thought it was ſafer, leſt more ſtools might be given than could be wiſhed for.

THE * changing the diet gradually, is certainly a thing of more conſequence, than *the itinerant* operators ſeem to think, as one doſe of ſalts ſeems to them to be the paſſport to repletion: But the Doctor judiciouſly obſerves, that they ought to be very cautious in returning to their uſual diet, and often finds *by the diſcharge from the arm remaining, after the diſeaſe is over*, that dreſſings become neceſſary,

* *Vid.* p. 38. preceding.

ſary, as well as purging and alterative medicines; I ſometimes go a little farther, and bleed, give antiphlogiſtic medicines, and, never apply a ſingle topical remedy that has the leaſt tendency to dry up the diſcharge *.

WHERE there is a raſh accompanying the variolous pimples, the Doctor adviſes his patients *to refrain from cold water, and keep the houſe, with cordial medicines:* This is certainly a ſenſible practice, but the idle reports that were propagated, were, that the new method of practice was, the more alarming the ſymptoms, the greater neceſſity of turning the patients into the fields, and to be drenched with cold water: Page 46, the Doctor tells us of the abſurdity of ſome practitioners, who, by theſe means, *have repelled the raſh; and the bad effects experienced afterwards.*

HE obſerves likewiſe, that raſhes happen during the preparation, and this ſuppreſſed for a time, returns again at the eruption of the ſmall-pox; if this is the caſe, *is not maturation of the variolous pimples neceſſary?* Or will they vaniſh in the air?—I think the inflammation of the inciſed ſkin for two or three days only, and then going off, will frequently happen, where there has not been any variolous

* *Vid.* p. 15 and 38, preceding.

variolous matter inſerted, but merely from a ſharpneſs in the juices.—I own, when *this only* is the caſe, after inoculation, it is not ſatisfactory to me, without farther trial; and ſhould there not be any eruption or fever after the ſecond operation, I ſhould be apt to ſuſpect the patient has formerly had the diſeaſe unnoticed, and not at that time. Page 52, the Doctor tells you, that after the eruptive ſtage of the diſeaſe is complete, there is ſometimes a ſecond crop, in ſome caſes, *without* maturation, in others *with*, and that ſome of his own patients, and of other inoculators *in this way, have had conſiderable eruptions after their return home to their families*; all that can be ſaid, is this, that in the natural ſort it is ſeldom ſeen, and is not to be wiſhed for in inoculation.—This is certainly anomalous, and proves in the ſtrongeſt manner what I have aſſerted, that the ferment is raiſed, and either not permitted, or not aſſiſted to depurate the blood from the variolous matter.

PAGE 57. Boils, it is ſaid, are rarely conſequent of this *new* method of treating patients under inoculation; one happened in the axilla of a child, and two ſuperficial ones in others near the place of inſertion, which ſeemed rather to be occaſioned by an irritation from the *diſcharge* at the inciſion. What

I have always underſtood of the *new method* of inſerting the matter, was, that it became only a puſtule, and never diſcharged, or required dreſſings, and dried up with the reſt of the pimples; but the Doctor again ſays, that ſloughs on the inciſions have happened in a few inſtances, and now and then little breakings out, and ſcabs.—And now and then theſe ſaid *accidents* have happened in *the laſt edition but one*, and generally go off by the ſecond doſe of gentle phyſic, as do the fullneſs of the veſſels on the conjunctiva by taking away a little blood, and ſome ſaline or other cooling draughts, *without bliſters*; page 58, the complaints heretofore *ſo frequent and grievous* by this *new method* are reduced.—I certainly have, *unknowingly*, been in the *new method* for ſome years, as I cannot ſay within my retail practice, I have either found them *frequent* or *grievous*.

The Doctor adds a circumſtance, which if it does not amount to a proof, admits at leaſt of a fair *conjecture*, that the ſtate of health is better here, than where thoſe remains of putridity are ſo evidently exiſting in the habit.—If conjectures are allowed, I am of opinion, that if the ſame quantity of variolous matter is inſerted into different ſubjects, and the ferment raiſed, if permitted to be thrown on the ſkin, and then the pimples to ſuppurate,

rate, leſs putridity will be left, than where repellents and cooling medicines are given, and the patients conſtantly expoſed to the cold air, even of the ſevereſt winter.

PAGE 59. I am ſurprized to find the Doctor ſhould think, that any one ſhould attempt to calumniate, and diſcredit the practice he has ſet down; for it is ſenſible and conſiſtent, and what every man of experience would always do, *if too low to raiſe, if too high to lower*; cordials and antiphlogiſtics muſt have their turn, and cool air be frequently admitted into the chambers of thoſe, where confinement is thought neceſſary; for the Doctor's candour tells you there are ſuch caſes even in the *new* method.——How different is this from what the *prejudiced eſpouſers* of what is called *the new method* aſſert, that they are not *ever confined after the eruption, and after that,* nothing *but cold air, and cold water*; *and that this ſucceeds when the doctors have given their patients over in the natural ſmall-pox.*

THIS, has been tried, from the good opinion entertained of thoſe who recommended it, and when the patients have died, the anſwer is, Why moſt likely they would have died, if any other method had been uſed. A man muſt be hardened indeed, that could make

make light of a perſon's death, in conſequence of a practice ſo oppoſite to common ſenſe; for I ſhould think it juſt as reaſonable for a phyſician to throw his patients into a river at the criſis of the diſeaſe, or lay them in the cellar with only a ſheet on, becauſe one or two out of many, have recovered after ſuch treatment.

PAGE 60. I am fully convinced of the truth of every thing the Doctor has advanced; but what I have had related to me, is not *an eruption*, the *conſequence of repletion*, ſome ſhort time after the patient had been ſo lowered as not to have ſufficiently depurated the blood, at the time when the faint effort had been made to produce the diſeaſe; but in patients where the ſtrongeſt aſſurances had been given of ſecurity, and many months afterwards the ſmall-pox has broke out in the natural way; this an empiric would ſmother, this a man of character would proclaim, in order to eſtabliſh a practice the moſt beneficial to mankind.

I SHALL here ſubjoin ſome of the Doctor's caſes, as they prove every thing I have aſſerted in my account of the diſeaſe, either by proper or improper treatment; and tho' prejudice in favor of a particular ſyſtem may influence ſome authors, yet the Doctor's

 candour

candour is ſo far predominant, that he relates the facts as they are; and, from thence the ſkilful practitioner will obtain light for his future conduct.

" Many were inoculated twice, and had " ſigns of infection by the ſtate of the arms, " but without fever, others had ſymptoms of " the eruptive fever, but no pimples." Tho' moſt of theſe had been inoculated twice, yet I cannot ſay it is to me as ſatisfactory, as if they had been ſuffered to replete a little, and had been inoculated a month or two after the firſt operation; as we find in many inſtances of other caſes related by the Doctor, that on their returning to their houſes, and uſual way of living, the ſmall-pox ſeeds were brought forward, and the diſeaſe appeared in its uſual ſtages. This confirms what I have given as my opinion, page 30. The viiith caſe is very ſingular, and is as follows *:

" A MAN between 50 and 60 was inoculated about four in the afternoon: On the morning of the third day after the inoculation I firſt ſaw his arms, when they ſhewed uncommon ſigns of infection, being already much inflamed; and upon enquiry, I received from him the following account: That

* *Vid.* Dr. *Dimſdale* on Inoculation, p. 91.

That on the ſame evening he was inoculated, he felt an uneaſineſs and numbneſs at and near the place of inſertion; and that the day following, theſe complaints increaſed, and ſpread up to the ſhoulder of one arm, which was very ſtiff and numbed; that the inciſion had itched ſeveral times, and his arms felt as if they had been bruiſed by a blow with a very large ſtick. And on the preceding evening, which was the ſecond from the inoculation, his head had been giddy and in pain, accompanied with ſome chilly fits; but all theſe ſenſations went off without any other illneſs. He had reſted well, and never thought himſelf in better health."

"FROM this time I ſaw him at different times every day, and he continued in perfect health; only ſometimes, eſpecially towards evening, he ſaid, he felt as if he had drank too much. The arms were much inflamed, but on the 6th and 7th day they altered their colour to a darker hue, and the inflammation and hardneſs were evidently abating. He now deſired to go a journey of about 20 miles on buſineſs; and this I conſented to, from an abſolute confidence that he was ſecure from any alarming attack; having firſt enjoined him not to go into company where he might riſque

ſpreading the infection; for his breath at this time had that peculiar offenſive ſmell which accompanies the diſeaſe."

"He returned the following day, being the 8th, in the afternoon, making no complaint but of hunger; yet ſaid his head had aked the preceding night after his journey. His arms were now rather more inflamed, which I attributed to the friction they might have in the chaiſe; but from this time all complaints of every kind ceaſed. His arms ſoon became quite well; he took his firſt purge on the following day, a ſecond on the 11th, and returned home on the 13th from the inoculation, without having a ſingle eruption of any kind."

"It is remarkable in this gentleman's caſe, that being ſo well, he did not ehuſe to live with thoſe who had the diſtemper, but continued in a lodging with his wife, who accompanied him by way of nurſe, upon full confidence of having had the ſmall-pox many years ſince. However, after they got home, ſhe fell ill, and had the diſtemper in a very clear but favourable manner, and doubtleſs caught it of her huſband *."

In the tenth caſe, the Doctor ſays, "*the puſtules*

* *Vid.* p. 41. preceding.

pustules * having advanced properly towards maturation, I ordered him immediately to the house, where he remained perfectly well, and the pustules which were about twenty, maturated very kindly."

"CASE XIII. On the 8th day an erysipelatous rash, with pimples; the rash went off as the pimples advanced, little or no fever, but by *white wine-whey the pustules became large and maturated well*; no other complaints during the whole process."

"CASE XIV. After two of the preparatory powders an erysipelatous rash appeared; as soon as that went off, the person was inoculated; seven days after, the eruptive fever came on, the rash returned, *was then confined to her room*, and took the emetic tartar and crabs claws; kept her room, and a few distinct pimples appeared on the tenth day; the rash appeared fainter, and all did well."

"CASE XV. On the 6th day after inoculation complained of the usual symptoms of the eruptive fever; on the 9th about ten pustules, it is said, appeared after the alterative pill and purging

* I never call the first appearance of the eruption *pustules*, but *pimples*, and as the words are used as synonimous by some writers, I think it necessary to explain my meaning, to prevent cavil.

ging draught, and till that time kept in the air, his feverish complaints ceased; these pustules seemed to dry away without maturating, which is often the case when few. On the 12th he took physic, went home, and it was supposed all was over. On the 16th, was told he had been much indisposed since his removal. The Doctor saw him on the 17th, when he had 40 *pustules* in his face, his arms became inflamed, and many pustules near the incision.

Case XVI. The 5th and 6th days after inoculation, the feverish symptoms came on, and lasted three or four days. The incision shewed evident signs of infection, but not in the usual manner, where things go on well. The 8th day two or three pustules were discovered near the place of insertion. The 9th day about one hundred appeared in different parts. The 10th day the pustules were properly advanced, and the patient seemed perfectly well; but the arm had not the usual good appearances, and was not satisfactory. The 11th day he was seized again with the usual symptoms of the eruptive fever, but more violent. 12th, The symptoms continued pretty high, was therefore advised to get up and go into the air, and to take a dose of physic, which gave four stools, and relieved all complaints, *on an erup-*

eruption ſucceeding, to double the number of the former; both orders of puſtules maturated about the ſame time. The Doctor thinks that the firſt order was retarded by the ſecond eruptive fever, which hurried on the ſecond order faſter than uſual. I * cannot ſay I underſtand this, the fever retarding the one crop, and forwarding the other.

CASE XVII. " A perſon had, the 2d day after inoculation, the ſymptoms preceding the eruptive variolous fever. The 3d day the wounds were quite healed; the perſon had been much in the way of infection, and therefore, ſuppoſed he was going to have it in the natural way." I do not ſee the reaſon for this, as ſeveral had been attacked as early after the operation; and it has been ſaid, that *patients cannot be infected by the mouth or noſe, from patients inoculated in the new way*; "the fever remaining, the mercurial and antimonial pill were given at night, and was directed to go into the air. The 4th day the complaints remaining, took another purge. 5th, Saline mixture, with tartar emetic and crabs claws; this purged and ſwetted, but the cough and difficulty of breathing was troubleſome. 6th Day he was bled, blood ſizy. 7th The arms began to inflame, the pain in the breaſt relieved, cough

* Page 107.

cough ſtill troubleſome. 8th Day, the bleeding repeated, with the antimonial powder. 9th Day peripneumony, and fever worſe; was bled again, and a bliſter applied, with a gum ammoniac mixture; in the evening the ſymptoms abated. The 10th day, the complaints relieved, but the fever ſtill continued, medicines as the day before. The inciſions ſpread, but not the uſual appearance preceding an eruption. 11th Day, the peripneumonic complaints worſe, a veſicatory to the ſide. 12th, The inciſions looked pale. 13th, was bled again, the inciſions put on the appearance of puſtules irregularly ſhaped, with a fluid under the cuticle. 14th, The ſymptoms abated, on two puſtules coming out on the face; the inciſions advancing to maturation. 15th, The inciſions were more elevated; but the puſtules looked pale. The 16th, all was thought to be over, and he went out on horſeback, and the Doctor took his leave, nevertheleſs, the day after, which was the 17th, in the evening, he had a return of fever. 18th The ſymptoms of fever went off, on the eruption of many puſtules, which filled well, and *maturated* properly without farther illneſs; the Doctor did not ſee him for near three weeks, and found what the patient related to be true, by the marks in his face, and other parts of his body.

SURELY, that the neceſſary treatment of the peripneumony retarded the eruption, will be allowed, and it is ſtrongly proved, that tho' the variolous particles may lay dormant for a time, they will make their way to cleanſe the blood of its impurity, if there is ſtrength of conſtitution to effect it *.

CASE XVIII. The 6th day after inoculation, ſymptoms of an eruptive fever; the fever ſlight but remained 'till the 8th, when ſome eruptions appeared on the face, which the Doctor took to be variolous, but was ſo blended with ſcorbutic pimples, he was uſed to, that it was difficult to determine which were freſh, and which ſcorbutic; the inciſions much inflamed. On the 9th day was perfectly well, and not any more eruptions ſhewed themſelves; and the Doctor having had ſeveral patients, who had paſſed through the diſeaſe with no more illneſs than this man, and ſome without any eruption, concluded all was over. 10th, Took phyſic, and had mutton for dinner, and drank ale after it: The conſequence of which was, he had more fever than any other time during his inoculation, but attributed it to catching cold during the operation of his phyſic. 11th, Still feveriſh and much indiſpoſed, had a bad night; in the evening of this day

* What would have become of this patient in the hands of one of our *itinerant* operators?

he found more puſtules on his back, and thought himſelf much better. 12th, He went to a friend's houſe, and left word he was quite well. The Doctor did not ſee him till the 14th, when he found a moderate number of freſh puſtules on his face and limbs, which *maturated* kindly, and he remained in perfect health." Do not theſe caſes evidently ſhew, that there was not ſtrength of conſtitution to throw out the pimples till the patient lived a little better? If theſe caſes do not ſhew the impropriety of ſuppreſſing the eruption in part, by keeping the patients too low after it is advancing, I know not what can.

" CASE XX. The 5th day after inoculation, a perſon of a ſcorbutic habit, whoſe legs were particularly affected by the diſeaſe, had ſeveral puſtules on them. On the 11th day more puſtules. 12th, Slept ill the laſt night, but a great number of almoſt coherent puſtules appeared under the hams, and on the legs, neck and face. He had been all along adviſed not to ſtir much, but had taken greater liberties of walking about than the Doctor allowed of. 13th, Had not ſlept a minute all the laſt night, but was walking about the houſe, complaining much of pain; was now rather cold, pulſe low, aſpect languid, his face livid and pale, complained of faintneſs and ſickneſs. Theſe ſymptoms

alarmed

alarmed the Doctor. He was not taken into the ſnow, like the itinerant operator's patients, but was put to bed with *cordial medicines*, and the bark to be given frequently; by theſe means the pocks maturated, and he recovered without mercurials or antimonials, and his legs better for inoculation."

"CASE XXI. A ſore throat ſupervened inoculation, the eruption moderate, but maturated kindly. On the 7th day from the eruption, bleeding, bliſtering, ſcarifications on the tonſils, were made more than once, the fever almoſt concluded, which certainly forwarded the maturation of the pimples."

"CASE XXII. Seems to have had the eruption kept from ſuppuration, by the repellent antimonial and mercurial medicine, and was much out of order till he kept within doors; the pill taken again, but white-wine-whey was taken with it; the next day he was much better, had reſted well, three ſtools from the pill, and the ſmall-pox advanced."

THE chincough ought always to be an objection to inoculation, as many of theſe patients die; children at the breaſt died; an adult died apoplectic, after being ſeemingly recovered; on the firſt attack it was thought to be owing to filling up too faſt, with animal food; he had taken three doſes

of phyſic, when danger from the diſeaſe was ſuppoſed to be out of the caſe.

As the following has been lately given me, I will inſert it as a continuation of the facts advanced.

A PERSON about 17 years of age was inoculated by a gentleman of eminence in the profeſſion, which did not take place, ſuppoſed to be owing to the matter inſerted being taken too late in the diſeaſe; and after the expiration of a fortnight, was again inoculated with freſh matter. The inciſion became inflamed at the uſual period, and eight or nine days after the operation, about four or five pimples within a circle of two inches diameter appeared on the inciſed arm, an inch or two below the plaſter on the wound, which was then declared to be the diſeaſe, and ſeemed to advance towards maturation for two days, but being at a ſtand for three days longer, the queſtion was aſked of the phyſician and ſurgeon, If they thought ſecurity againſt any future attack was obtained by ſo few pimples not coming to matter? It was declared, as well, as if the perſon had had ever ſo many. A relation, tho' not of the profeſſion, diſſatisfied with the ſmalneſs of the number of pimples, and they not maturating, imagined, that the extreme low ſtate the perſon was reduced to by abſtinence,

during the preparation, and after the operation, was the cauſe of it: He prevailed on the patient, the evening of the 5th day, after the eruption, by the conſent of the phyſician and ſurgeon, to drink two or three glaſſes of raiſin wine, after a little chicken had been ate for ſupper; was hot and reſtleſs all night, and the next day, was ſeized with the uſual ſymptoms of the eruptive fever, the ſucceeding day a plentiful crop appeared, which underwent the uſual ſtages of the diſeaſe, but tho' pretty full, had not any ſecond fever during the maturation. May we not aſk, without ſuſpicion of prejudice or malevolence, whether the firſt eruption would not have been ſaid, according to the new plan, to be the true ſmall-pox, and maturation of the pimples no ways neceſſary? Or ſuppoſing this help to the circulation had not been given, by a little made wine and a bit of chicken, would not ſome of the variolous ſeeds have remained in the blood, and probably have been injurious to the conſtitution in future, had not this plentiful eruption followed? No perſon, I dare ſay will aſſert, that the ſmall quantity of aliment and wine would have given an eruptive fever, had not the blood been infected with variolous particles.

It may poſſibly be objected, by ſome, that the obſervations and practice hitherto related,

related, are not Mr. *Sutton's*, or the *new method of inoculation*; I will therefore add a few remarks, given by Mr. *Chandler*, on Mr. *Sutton's* practice, as executed by his partner Mr. *Peale*. This will certainly have its weight before the balance is ſtruck, as Mr. *Chandler profeſſes himſelf an eſpouſer of the new method.*

MR. CHANDLER * tells us, " that Mr. " *Peale*, a partner of Mr. *Sutton's*, has re- " duced the preparation to three doſes of " mercurial powders at night, with an in- " terval of *two days* between each, and the " morning following each powder, a doſe " of purging ſalts, ſo that it is only eight " days, inſtead of a fortnight, in preparing " the ſubjects; and, on the ninth day he " inoculates his patients ſo prepared †; the " antimonial pill is not given till the fifth " day, and then to almoſt all, except very " young children; to them a little purging " ſalt or ſenna-tea." Is this not clear then, that the giving a ſtool or two is the intention at that time, and if the body has been kept open the whole time, from the patient's being inoculated, I ſhould ſuppoſe the ſame thing is effected, as by giving a ſtool or two at that particular period, and ſhould certainly depend on the propriety of doing it or not, by

* *Vid. Chandler* on Inoculation, p. 6.
† *Ibid.* p. 7.

by the perſon who ſees the progreſs of the infection; if the pill is repeated every day from the 7th after inoculation, and is of a *purging quality*, I ſhould think, that it is only *repellent* in its effects, ſo far as to check the efforts of nature, that I ſtill conceive would be ſalutary. "When the erup-
" tive fever comes on, the patients drink
" acidulated liquor, and when the *eruptive*
" *ſymptoms* are over, his patients are out of
" danger;" then it is plain, the pimples forming of matter is not at all neceſſary *.
" A ſlight diaphoreſis, it ſeems, ſometimes
" came on by this acidulated liquor, but
" never a profuſe ſwet, as the patients are
" not permitted to lay in bed or come near
" a fire; but, during the eruptive fever, if
" the weather is tolerable, go out of doors,
" and drink nothing but toaſt and water."
So far ſo good. Mr. *Chandler* thinks Dr. *Baker* has been miſinformed, in reſpect to purging, after the diſeaſe is ſuppoſed to be over, for Mr. *Peale* being aſked the queſtion, anſwered, "as a matter of mere indif-
" ference," what Dr. *Glaſs* relates that "the
" patients who had a conſiderable degree of
" fever, were permitted to lie in bed." This Mr. *Peale* uſed to allow "by way of in-
" dulgence, but never adviſed it." Thus far, I think, we may conclude, that preparation will be reduced to two doſes of phyſic, or ſometimes

* *Vid. Chandler* on Inoculation, p. 8.

ſometimes three within the week, which, I believe, has been the practice of almoſt every man of eminence for inoculation for ſome years paſt. Whether advantage from preparing with mercury or without, or any preparation at all, but emptying the bowels, ſeems, with all the accounts we have had, to be at preſent undetermined. Page 18, Mr. *Chandler* ſays " That Mr. *Sutton*'s own opi-
" nion is, that the diſeaſe cannot be caught
" in the natural way from any of *his pa-*
" *tients*;" certainly not, if they have not the diſeaſe; but moſt of his greateſt advocates, that I have talked to on this ſubject, ſay, *that is not a fact*, for ſeveral have caught the diſeaſe from them: but tho' they have not eruption, from Dr. *Dimſdale*'s account of the woman being infected by her husband, who had not any eruption, my aſſertion of the breath being infectious, is clearly proved *. But, † Mr. *Sutton*'s partner " Mr. *Peale*, expreſſes a good deal
" of ſolicitude on this head; if the natural
" infection is taken a few days before the
" operation is performed, *which has often*
" *happened here*: The time of coming on
" of the ſymptoms ſufficiently diſtinguiſhes
" it."

" If infection * ſhould be received by the
" mouth, noſtrils or pores. I cannot ima-
" gine

* *Vid.* p. 24 and 41, preceding.
† *Vid. Chandler* on Inoculation, p. 19.

" gine any of these medicines would make
" this sort of small-pox like to the *inocula-*
" *ted*, nay †, they have often failed in the
" *natural* small-pox, even in the hands of
" Mr. *Peale*, almost as often as experi-
" mented."

If the medicines will not do any good in the natural small-pox, I should suppose them a chip in pottage in inoculated patients ‡. " That Mr. *Sutton*'s method
" seldomer fails than the old, in giving the
" infection, is surely a mistake; for we have
" often, very often, seen the operation re-
" peated §," after urging the necessity of purging once in the interval of seven days to clear the bowels from any viscidities, produced by the kind of diet, during this period of the infection. " However, says
" Mr. *Chandler*, we may be mistaken in
" the composition of Mr. *Sutton*'s pill. But
" if it shall appear, that several who have
" been prepared by Mr. *Peale* himself have
" accidentally taken the natural infection,
" have afterwards been attended by him,
" and have swallowed as many pills as he
" chose to give them; and yet have died."
Why then there is an end of preparation and medicines.

M " A con-

* *Vid. Chandler* on Inoculation, p. 20.
† *Ibid.* p. 22. ‡ *Ibid.* p. 25. § *Ibid.* p. 27.

" A CONSIDERABLE farmer * in the parish of *Wickham*, had a pretty full crop of the natural small-pox, which however was proceeding regularly through its stages; on the sixth day the pustules were growing very properly, the face and head swelling, and a proper degree of spitting was come on; when the impatience of those about him, made them send to Mr. *Peale*: who, as I am informed from very good authority, immediately gave him seven pills, ordered him to be taken out of bed, and placed opposite to an open window in the month of *February*, with future directions, to take a dose of manna and salt every other day till he was well. The pills brought on a violent convulsive vomiting, which had like to have killed him on the instant: but by the help of some proper, but now so much decried cordials, it was checked: and though the pustules immediately fell, a delirium came on, large blue spots appeared, the swelling of the face subsided, the spitting went quite off, and never could be again restored; yet with great care, and the farther help of cordials joined with antiseptics, he was at last happily and safely carried through it. A girl of sixteen was prepared by Mr. *Peale*, and inoculated at *Patricksbourn* on *Tuesday*, the natural small-pox ap-

* *Vid. Chandler* on Inoculation, p. 28.

appeared on *Wednesday*; here was time enough for the pill to exert itself, but no pill was given; and though Mr. *Peale* was solely concerned, he endeavoured to save her with a bitter mixture and very four drops, which probably were a decoction of the bark, and elixir of vitriol, however they failed, and the girl died. But, had this celebrated pill been possessed of the powers so liberally ascribed to it, would he not have depended for the cure on that alone? If these were not sufficient, I could enumerate several other cases of this sort: but that would be taking up my reader's time to no purpose."

THE cases related by Mr. *Chandler* had like to have been classed under the title of murder, by the assistance of Mr. *Peale*, partner with Mr. *Sutton* and his coadjutors repellent pill, and the cold air of *February* pressing in at the open window, opposite to which the patient was placed, from the most favourable symptoms of recovery was this poor man reduced to death's door, and would have *walked out*, had not farther cordials, and antiseptics been timely administred. The next case prepared and inoculated by Mr. *Peale*, on the *Tuesday*, and the small-pox appeared the day following, and she died.

"*That Mr.* Sutton *prevents by virtue of his* " *medicines the symptoms of a great fever,*

" *or more pustules than his patients would* " *chuse* is not very likely: for the symp- " toms of a great fever never happen, and " those must be unreasonable people who " complain in his inoculation of too many " pustules: a complaint of too few is much " more frequent. *That a patient who has* " *twenty or thirty pustules is said to have the* " *small-pox heavy*, I cannot deny, for peo- " ple will say what they please: but I have " seen several here, who have had from two " to four hundred pustules."

BEFORE I conclude, I must add, that on recapitulating the reasons grounded on experience, it appears that preparation for the operation must be different in different subjects; that the variolous matter is ever the same, that neither the quantity nor quality of it makes any difference, but that the particular species of the disease depends on the constitution of the patient inoculated; that too great heat prevents maturation, and too little makes cordials necessary to promote it; that a constant circulation of fresh cool air is ever necessary for carrying patients safely through the disease; and, that till the eruption is complete, every person may with manifest advantage be frequently in the open air, and take their usual exercise, and, even during the eruptive fever, the symptoms, if violent, when confined in the house, will be

greatly alleviated by being carried into the open air. This, I believe every experienced practitioner will ſubſcribe to, but let me not paſs over in ſilence, the obligations I know we lay under to thoſe gentlemen who firſt began the new method of inoculating, as they had opportunities from the number, and circumſtances of their patients, to eſtabliſh a fact, relative to the ſafety of keeping their patients in the open air till the time of eruption; and though ſome of the gentlemen of eminence in the profeſſion had been endeavouring to inculcate this to their patients, yet ſuch was the prejudice of parents and nurſes, that, but rarely they dared to enforce it, as in caſe any cold had been taken, or any difference in the ſtages of the diſeaſe ſhould have happened, from what they expected, it would then have been attributed to the little obliquity from the ſtreight line of the eſtabliſhed practice, and clamor would have injured their reputation in future; but, from the ſucceſs of thoſe gentlemen who were wholeſale practitioners in the different counties of this kingdom, the prejudice is greatly removed, for which I moſt ſincerely return them my thanks. But now comes the point, on which the eſtabliſhed practice for the time to come depends. Is an eruption produced by inoculation ſufficient to prevent infection from the ſmall-pox in future? Or, is the maturation of the pimples neceſſary for that

ſecurity,

ſecurity, and to prevent miſchief from the ferment being raiſed, by the inſertion of the variolous matter? Or are more than one or two purges abſolutely neceſſary, to carry off the relicts of the ſmall-pox? To thoſe who ſhall be of the firſt opinion, I will beg leave to aſk the following queſtion: Suppoſing a patient has had a malignant fever, which, after many efforts to deſtroy the patient, dame Nature ſhould kindly interfere, and produce a critical tumor, would any ſurgeon of ſkill prevent its coming to ſuppuration, or rather, would he not do all in his power to promote it? To ſay that tumors are reſolved without ill conſequences, is not an anſwer, it muſt be the effect of a malignant fever, and then, I think, no man in his ſenſes would riſque the conſequences. This may not be ſo evident to all, as the following fact; Suppoſing the inguinal glands became the ſeat of the *depôt* of venereal virus, and matter in the body of the tumor, not to be felt by the touch, the ſwelling had been diſperſed, and for a few weeks the patient has thought himſelf well; but, how much more frequent is it that he feels violent nocturnal pains in his head, arms and ſhins, which, being taken by the unſkilful for rheumatic; the warm bath and ſwetting is adviſed; the pains are relieved by an eruption, that ſoon determines under what claſs to rank it. If theſe are the conſequences of

virus,

virus, whether variolous or any other ſpecies, remaining in the blood, the ſuppurating of every critical tumor on the ſurface of the body ſeems neceſſary, when nature makes the puſh; or, if unfortunately prevented at that time, every outlet of the body ſhould be thrown open, in order to obtain a thorough depuration; and mercury, a ſpecific in ſome caſes, often becomes of more ſervice as the the finiſher of the cure, than when employed as a preparative for the operation.———It is poſſible what has been here related may bias ſome people in their practice till better authority is obtained, to effect which, ſome of the foregoing ſheets were wrote, in hopes of prevailing on every unprejudiced, and competent judge, to make the ſtricteſt and moſt accurate enquiry into the number of perſons, that have, during theſe two or three years laſt paſt, been inoculated within the circuit of their practice, and in the moſt candid manner faithfully to relate the ſtate of the patient's health for ſome time before the operation was performed; the particular treatment of the patients, whether on the modern plan, or what is called the new method, or as it was practiſed before, *viz.* by inciſion, inſerting the variolous matter by a thread; and in whom the pimples maturated; to remark likewiſe, where the pimples only appeared without ſuppurating; and where the arms only diſcharged; or if what is called

the

the eruptive fever came on, and declined without any pimples on the body in general: Then, as carefully to be informed how long ſince they were inoculated, and the ſtate of their health ſince their recovery from the diſeaſe. Theſe facts being properly authenticated, will have their due weight with thoſe whoſe ſole view is the benefit of their patients; and where an affected ſingularity of practice, might be neceſſary for ſome of the itinerant operators at firſt, to claim the public attention, even theſe, I hope, if humanity and integrity have not totally deſerted them, will not perſiſt in any part of their practice, which from experience, has proved prejudicial to their patients, as they need not own their errors, but imperceptibly to their patients in future correct them. Thoſe who have adopted this or that particular plan of inoculating, in order to fall in with the preſent rage of the people, and have *intereſt* only in view, are not the perſons I mean to addreſs myſelf to; but whoever wiſhes to come at truth, for the benefit of mankind, I make no doubt will favour me with the accounts they have impartially obtained, and I will publiſh them, with the name of the perſon who has taken the trouble to collect the facts.

F I N I S.