

in the treatment of gonorrhœa, I am induced to offer the following conclusions, viz. *Cubeb* is not a specific for gonorrhœa. At the same time, it may be considered a valuable remedy when of a good quality, fresh, and finely powdered; and, if I mistake not, it is deserving of as much reputation as any other remedy now in use for the cure of that disease.

From such considerations, I am induced to offer the foregoing remarks to my contemporaries in the profession, together with a most anxious wish, that some of our eminent practitioners in surgery may be induced to consider the subject, and give to the public the result of their observations.

Rathmines, August 30th 1818.

X.

On the Present State of Vaccination. By Mr THOMAS BROWN,
Surgeon, Musselburgh.

SIR,—I intended long before this to have returned you my best thanks, for the very handsome manner in which you have retracted your opinions concerning the sentiments I entertained of the Jennerian practice, and to have endeavoured to give a satisfactory answer to the different queries, which you very properly put, with a view of coming to some understanding upon the subject; but I am sorry to find my professional avocations will not allow me to follow the plan I proposed, and I must content myself with presenting you a brief summary of my present opinions on this important subject.

I must, however, Sir, first take the liberty of observing, that no one could feel more deeply the disappointment of vaccination being found inadequate to give perfect security against small-pox than I did. I was the third practitioner in Scotland who was favoured with virus from the late Dr Anderson of Leith; and, from a single lancet, I prosecuted the practice to the fiftieth series; and, in less than two months, from my first use of the virus, the small-pox inoculation was entirely superseded in my practice; and before I considered it my duty to lay my doubts of the efficacy of the vaccine practice before the public, I had vaccinated upwards of 1200 cases; a number certainly sufficient to prove that my motives could not be selfish or interested,

when I was declaring, not only that the opinions I had given, and the sentiments I had entertained for nine years, were erroneous, but that I had received remuneration for a practice, which I now declared to be almost useless.

It was a few months after I had begun the general use of the vaccine inoculation, that I had occasion to meet the late Dr Alexander Monro; and, upon my informing him of my having adopted the new practice, he made the declaration, which I have noted in my dedication to him, when I first submitted my sentiments on this subject to the public; viz. "Such was his opinion of the efficacy of the practice, and the distressing consequences likely to result from it, that it ought to be prohibited by act of Parliament." I frankly confess, I considered the Doctor's opinion as being merely the result of reasoning from analogy, and not entitled to any weight; in opposition to the two important facts, which experience then afforded in favour of the Jennerian discovery, viz. that if you submitted the vaccinated cases to the tests of inoculation with variolous virus, or exposure to the epidemic, they resisted both. Notwithstanding such important facts, however, I am afraid it will turn out true, that it would have been well for the world, had the Doctor and other eminent characters maintained their want of confidence, and not have allowed these two facts, however striking, to overturn what had been the result of long experience; but he and every man of any eminence in the profession, not only rapidly became converts, but unfortunately, considered any further inquiry and proof altogether superfluous, and all became *parties* to the success of the Jennerian discovery.

I can assure you, Sir, none of the medical profession, be he who he may, could outstrip me in zeal for promoting the vaccine practice, until the summer of 1808, at which time the facts occurred, which I thought myself not warranted in resisting, and considered it my duty to lay them before the public. I must now be allowed to declare, that I feel much pleasure in finding my observations were well founded, and that the sentiments and opinions they suggested are likely to be confirmed. There is surely, Sir, neither less merit, nor less virtue, in correcting a public error, than in propagating a public good; and I hope those gentlemen who took so much liberty in ascribing such improper motives for my conduct, will follow the liberal example you have shown them, and acknowledge that I have been an attentive and accurate observer.

When I determined, Sir, to publish my sentiments upon this subject, I was fully aware of the contemptible state of those who had hitherto opposed vaccination, and I shuddered at the danger of being classed amongst them, and of opposing nearly the

whole of the respectable part of the profession and community; but the proof which I met with, appeared to me so clear and decisive,—corresponded with a minute examination of even Dr Jenner's own statement,—and was supported with all the observations I had made, relating to the inoculation of small-pox, together with my experience of the other exanthemata,—I determined to risk every species of detraction, and do what appeared to me my duty; and I think, Sir, you will readily acknowledge, neither credit nor honour can result from discerning and acknowledging facts, only when they shall possess perspicuity sufficient to make an impression on the faculties of an idiot, or force sufficient to constrain the resistance of madmen.

Upon considering the sentiments I have thought it my duty to publish, in various ways, upon this subject, I find I have really little to add, and that nothing is left for me to do, but to give a summary of what appears to me to be the present state of the vaccine practice.

The small-pox have been known in this island as an epidemic, for nearly a thousand years, and, upon an average, one person in five fell a victim to the disease; during which period, the universal opinion was, that whoever had once undergone the disease, in a *distinct* form, never suffered a second attack.

It is now nearly a century, since the population of Great Britain began to place their security against the natural small-pox, by having recourse to the practice of inoculation; and all those who chose to avail themselves of that practice, escaped the desperate chance of one in five against their existence, at only the hazard of one in five hundred; and it was allowed on all hands, that wherever a *distinct disease* was produced, the same security was imparted from that process, as was derived from the epidemic disease,—perfect satisfaction was obtained, and all future anxiety and apprehension were destroyed.

The circumstances which rendered us doubtful of the future security obtained from undergoing the small-pox, either from the epidemic contagion, or from inoculation, were, when the fever was not severe, and a very scanty eruption of ill defined pustules took place. And, notwithstanding such occasional deviations from distinct disease, still the instances of a second attack of small-pox were so rare, as to make no exception to the general rule, and even excited the strongest doubts of the correctness and reality of such cases, in the minds of the most respectable part of the profession.

Our experience, with regard to any other disease which the general consent of mankind allows only to occur once in our lives, is

exactly the same, viz. they are only known to exist from the uniformity and distinctness of their characteristic symptoms; and, if these are wanting, we have our doubts either of their existence, or of the ultimate protection they will afford.

Our experience also taught us, that the human body, while either labouring under some diseases, or for some time after they were over, was not so liable to be affected with the influence of other diseases; while others, again, afforded no protection, or rather offered no resistance whatever. Our experience afforded no proof, that the influence of any of the exanthemata extended their security, but against their own peculiar disease.

When the Jennerian practice was introduced to public notice, the whole medical profession entertained great doubt of its powers in being able to confer, either immediate or future security against small-pox, chiefly upon two grounds, viz. that of possessing no character resembling the severe disease it was meant to combat,—and of exerting no sensible or distinct influence upon the human body.

It was from the two circumstances of resisting exposure to the epidemic and inoculated contagion, the impression was produced upon the medical profession, that the vaccine process might be trusted to, as giving security against the contagion of small-pox; and these two tests were applied to every vaccinated case upon the first introduction of the practice, to the extent of more than 100,000 cases, and all were uniformly found to resist these tests.

If we examine the phenomena produced by the vaccine inoculation, we shall find they consist almost entirely in the appearances of the punctured point, at all times without any *distinct* febrile affection, and only occasionally with any sensible derangement of the system: That these phenomena admit of a prodigious variety, over which the practitioner, be he who he may, has no control, and still exert the same influence over the human body, in enabling it to resist the two tests already mentioned.

It is also ascertained by experiment, if you introduce small-pox and cow-pock matter at the same time, by separate punctures, and the usual local phenomena proceed exactly together, still the disease produced will be small-pox. Again, if you introduce the cow-pock virus two or three days before the small-pox matter, still the disease will be small-pox, but somewhat modified; and it requires the vaccine inoculation to be performed eight days previous to the introduction of small-pox matter, in order to anticipate entirely its effects upon the system.

Experience has also shewn, that the natural small-pox have made their appearance, when the vaccine puncture had previously existed, surrounded with its areola of the most perfect appearance for more than two days, and not in the least modified, but in the highest degree confluent, and followed by death. Small-pox pustules, too, existed within the very areola of the vaccine puncture.

Experience and experiment have also shewn, that, upon having recourse to exposure to the epidemic small-pox some years after having undergone vaccination, the individual is found to be influenced more or less by the contagion, and is liable to the disease of small-pox; and if inoculation with small-pox is again tried at the interval of some years from vaccination, not only the perfect local phenomena of small-pox inoculation will be obtained, but also fever and eruption; and these two tests, will now, in general, be found to exert their influence upon the constitution, exactly in conformity with the distance of the period from vaccination.

In conformity with this observation, experience has shewn, that for the first two or three years after the introduction of vaccination in Great Britain, scarcely a case of failure was heard of; but afterwards, they have been gradually increasing in number and severity every successive year; and that the number of such cases of failure have been met with in the respective situations, exactly in proportion to the early introduction of the Jennerian practice,—the extent of population, and the proportion of the lower classes of the community.

The accounts from all quarters of the world, wherever vaccination has been introduced, are assuming exactly the same aspect; and at the present period it cannot be disputed, that the cases of failure are now increased to an alarming proportion; and from a fair and impartial examination it appears, where the small-pox contagion has access to operate upon vaccinated cases of upwards of six years standing, and the contagion applied in a concentrated and lasting form, nearly the whole of such cases will yield to the influence of the small-pox contagion.

It therefore appears, it is incorrect to say, a very large proportion have resisted the influence of the small-pox; it would be more consistent with truth to state, “that they have not hitherto taken the small-pox;” because it is necessary to shew, such proportion have been distinctly exposed to a satisfactory form of the epidemic, and that a proper period has elapsed since they have undergone the vaccine disease. Besides, it is to be remembered, there are many instances, where individuals resist the contagion at one time, and are subject to its influence

at another; and also, there are not a few constitutions which are susceptible of neither small pox nor cow-pock.

But it is not only in the number of failures that this subject becomes alarming, it is also in the severity of the disease; and at this period, many of the instances of failure not only assume the most severe form of the distinct disease, but also have been confluent; and death has followed in a considerable number of cases.

Experience has shewn, that the cases of failure, as well as the mildness or severity of them, do not always correspond with the proportion of their distance from vaccination; but these will be found satisfactorily explained, either from the severity and mode of application of the small-pox contagion, or from the different extent of influence imparted to the constitution, by the variety in the vaccine phenomena.

It appears, that neither this unfortunate imperfection of the vaccine process in giving security against small-pox contagion, nor of the variety in the phenomena which the process may undergo, can admit of any remedy. The vaccinations conducted by Dr Jenner, by public institutions, by private practitioners, by ministers, midwives, or farriers, all have failed: whether the process has been conducted by one puncture, by two, or even by four; or whether the eventful test has been applied; * all have fallen short of the desired effect. The truth is, the only difference of the modes of conducting the vaccine process rests merely in extending or diminishing the period of security *a year or two*, and but of little consequence exactly to ascertain. There, however, can be no doubt, that, according to the extent and severity of the phenomena which attend the puncture, so will the impression be upon the system.

If, in order to avoid these consequences, you select the virus uniformly of the same limpid quality—use a lancet of the same edge—introduce it in the same manner,—and treat the arm afterwards in the same way—still a great variety will follow, and which no human being can prevent, but which will be found to admit of very little difference in the length to which the period of security extends. But if the virus shall be taken viscid, weak, or in the state of scab;—if it shall be introduced by puncture with a very fine edged lancet;—if the puncture shall be slight, and if only one,—then, in general, the operation will either fail, or a very imperfect vesicle will be produced, and of course a very feeble impression made upon the system, and which will

* Mr Bryce's method of vaccinating with the test puncture.

uniformly allow the operation of the small-pox contagion to influence the system some years earlier, and produce a more severe disease.

The unfortunate consequence of all this, however, is, that although you may be sensible the vaccine phenomena have been imperfect, and not so satisfactory as you could have wished, you cannot remedy it. The very feeblest and most unsatisfactory phenomena make such an impression upon the system, as will be found, either to prevent you obtaining any farther satisfaction by *revaccination*; and if you should inoculate, or expose them to the small-pox, they will be found to resist at that period both these tests.

I am decidedly of opinion, there is no mode of giving the vaccine disease by inoculation, which can impart *perfect and permanent security* against small-pox contagion; and I apprehend it is impossible to give the disease in any other form, to obtain that effect. For, if any one will attentively examine the whole history of vaccination, from Dr Jenner's publications downwards, he will find the proof of its powers to impart *permanent security*, almost gratuitous. But even allowing that it were possible to obtain perfect security, by receiving the disease from the cow, I apprehend no one will ever contend the practice can be carried into effect, if we are under the necessity of becoming milkers in the county of Gloucester. Indeed, Dr Jenner's cases do not amount to thirty, where he stated such exemption had reached to the extent of 30 years, or for life; and certainly there is no improbability, or impossibility, in supposing such number, either to be kept in a state of security, from continuing to exercise the office of milker, or to be those peculiarities of constitution, not susceptible of small-pox; which number is certainly not too many to exist in the populous county of Gloucester.

The whole phenomena and history of vaccination, together with those of variola, rubeola, scarlatina, &c. &c., and even the action of mercury, shew,—a specific action may not only exist minus in the system, but even in various degrees, and that in proportion to the extent of their action, so may the permanency of their influence be estimated. Therefore, as the process of vaccination evidently exerts only a feeble influence over the human body, the extent and permanence of its effects are to be estimated accordingly.

I think it is also perfectly clear, and which ought to be considered as decisive, that, while we continue to maintain the antivariolous power of vaccination is perfect and permanent,—contradiction, confusion, and obscurity attend the subject; but the

moment a partial, feeble, and temporary influence is admitted, no contradiction of facts exist, and harmony pervades the whole subject.

I shall now, Sir, proceed to examine more particularly, the reasons which are still given by the friends of vaccination, for persevering in placing our confidence in the Jennerian discovery; and I must be allowed to premise, once for all, that, after the various tergiversations of these gentlemen, it is impossible to allow much, if any credit, to the different opinions and defences they now bring forward. As experience has taught us, what they formerly maintained as facts, must now be surrendered as no longer tenable, it is but fair to conclude, their present defence will undergo the same fate; and that, as they must feel their reputation interwoven with the issue of this question, their evidence must be considered as that of parties to the cause, and entitled to very little attention.

As the advocates of the vaccine practice cannot now deny, that cases of small-pox have occurred after the vaccine process has been conducted, even according to their own opinion, in the most satisfactory manner; they still contend the practice is entitled to full confidence, on the ground, that if so conducted, "it will *always* render any succeeding attack of small-pox mild; and there is not the most distant proof of such protection gradually wearing out, and at last becoming extinct." Also, if there should be any *severe* cases of small-pox succeeding to cases of vaccination, which they cannot challenge, they get rid of the difficulty by contending, "that there are certain peculiarities of constitution which resist the influence of the most perfect vaccine phenomena altogether."

I hold it, Sir, to be unnecessary to enter into any farther discussion, with regard to the possibility of conducting the vaccine process, so as to impart permanent security against the small-pox contagion,—referring you for a more particular examination to my publications upon this subject; and shall content myself with a short examination of Mr Bryce's method of conducting the vaccine process, by means of his test. In the *first* place, it is to be observed, the experience of every practitioner distinctly confirms the fact, that, when a circular redness diffuses itself suddenly round the punctured point, and while it remains so, the vaccine process is communicating whatever influence it is capable of exerting over the constitution; and this areola is considered by all practitioners as the proof of the *ne plus ultra* of the disease. Also, every practitioner who has attended to this subject will declare, they never yet saw an areola produced in the secondary, or test puncture, unless it previously existed in the first; and again, there is no medical gentleman of ex-

perience but will aver,—they have obtained resistance against the tests of inoculation and exposure to the small-pox, from the vaccine process, accompanied with every variety in the extent of this areola ; also, the experience of all will confirm, that you may vaccinate 500 cases, and, if the disease *proceeds to a vesicle*, the areola will not be wanting *in any one of them* ; and *lastly*, Dr Monro's family shew most distinctly, that when the process is even conducted by Mr Bryce, accompanied with his test, no better result is obtained. It is also to be remarked, that all our former experience in conducting the small-pox inoculation is in unison with what occurs in vaccination, and confirms the same fact most distinctly. But, Sir, the practice of the test not only possesses no advantage, but is even attended with several disadvantages, which is sufficient to cause its rejection, more especially if conducted in the mode recommended by Mr Bryce, viz. puncturing the first vesicle, about the fifth day after the virus had been introduced, in order to obtain virus for making the test puncture ; by which plan you frequently injure the first vesicle so much, as to destroy and interrupt the regular progress of the disease, and you also frequently get so very little virus, that the test puncture totally fails. The test puncture may also fail from other causes, and, of course, the confidence of those concerned unnecessarily shaken.

What I have now stated, I know to be facts from my own experience and observation. Long before vaccination, I was in the habit of performing many of my inoculations in the following manner—viz. With only one infected lancet, I made two punctures ; the first was the one I intended should be trusted to for giving the disease, and I bestowed the most of the virus, as well as made a more severe puncture upon introducing it, and the remainder of the matter was introduced with a slight puncture. The result frequently was, that the last puncture was full two days later in its progress than the first, and, when the first puncture assumed its areola, or, in other words, affected the constitution, the second rapidly followed. This practice I of course frequently followed in my vaccinations, and it was attended with the same consequence, and the test required was obtained without injuring the first puncture,—an object, in my opinion, of the very first consequence, and which no scarcity of virus should be allowed to disturb. But it was only when I had but a scanty supply of vaccine virus I followed this plan, as I always considered it of the very last importance, in conducting the vaccine process, to produce as severe a disease as possible ; and for this purpose, I always selected virus in a limpid state,—introduced it on a lancet moderately sharp,—partly in the form of puncture

and scarification combined,—in two places upon one arm, about an inch from each other. The next day, I generally ordered a stripe of flannel to be put round the arm, and kept it applied until the punctures became vesicular. I never allowed them to be disturbed in order to take virus, until the areola was beginning to form, and then only one of them. If one of the punctures failed, I never took matter from the other, until the areola was completely formed. If the extent of the areola did not satisfy me, I then used gentle violence, and pressure on the vesicles; and ordered the child to take its sleep, lying upon the same side with the vaccinated arm.

With regard to the curious excuse contrived by Mr Bryce to defeat those cases of small-pox which have occurred after his vaccinations, viz. “that, although the vaccine phenomena are all present, and exist in their most perfect form, still the constitution is not affected by the vaccine disease, and is left exposed to the influence of small-pox contagion,” I really think, if we were to admit such a defence, it might be fairly concluded, we have bid an eternal adieu to the exercise of our judgment. I shall leave it, Sir, for you to determine, if it is not ridiculous and absurd in the extreme, after having described vaccination as so simple, and so uniform, and to consist of certain phenomena which were invariably found to produce such an effect upon the constitution, as to prevent any farther effects from a second vaccination; to resist small-pox inoculation, and exposure to the epidemic; and also at first nearly to annihilate the small-pox wherever the practice existed to any extent;—to come forward and maintain, merely because small-pox have succeeded to vaccination, that the process is intricate, uncertain, and difficult to conduct; that there are none of the phenomena to be depended upon as indicating the action of vaccination upon the system; that the resistance of the tests of revaccination, inoculation, or exposure to the epidemic, is not to be depended upon; that, although symptoms marking a constitutional derangement are present during the existence of the vaccine phenomena, still it is not owing to that process, *but to some diseased action of the constitution*; that the production of a small-pox pustule by inoculating those who had undergone vaccination some years before was of no consequence, even although attended with an areola and constitutional disorder, *because it is a matter of fact, and is either well known, or ought to be known, to every surgeon, that these can be produced at pleasure; and one of the gentlemen connected with the Vaccine Establishment in Edinburgh, has kept up a supply of small-pox matter for inoculation, by successively inoculating his own arm.* The scab or crust which remains after the

disease was completed, which was supposed to indicate the perfect disease, is, *after the failure has taken place*, found out to be too little or too large, too light or too dark, or to have fallen off too early or too late. The cicatrix, too, is declared, if little, to prove that the local affection has been trifling and imperfect; and if large, it indicates some other diseased action. If the cicatrix is deep or superficial, the same conclusions are drawn. Nay, if it is of the very exact dimensions, still it is too much indented or serrated, to allow the process to have been complete. Here, Sir, I may surely be allowed to inquire, what length are their excuses, and the good humour and indulgence of the public, to be carried? Nothing but the most desperate and headstrong zeal can demand credit for such a tissue of absurdity; and I conceive it perfectly sufficient to enumerate them, in order to produce their refutation, and expose their folly.

The next reason given for still placing confidence in the efficacy of the vaccine inoculation, is, "that a very large proportion is still found to resist the influence of the small-pox contagion."

Those gentlemen who have stated this as a sufficient argument for persevering in the vaccine inoculation, do not even hint at what they mean by a very large proportion; but when we examine the different results which experience now affords, we shall find the most decisive evidence for rejecting any hopes which may be entertained from this quarter.

It may be first observed, that, in the certainty and consequences of variolous contagion exerting its effects upon the human body, everything depends upon the accumulation of contagious matter, and the extent, duration, and mode of application. There is not a member of our profession of any experience, but must have observed these circumstances distinctly exerting their influence in the propagation of every contagious disease, and also have met with many instances, where individuals have resisted the influence of contagion at one period, even although placed in favourable circumstances for the operation of the epidemic, and have been afterwards subjected to the disease in its most severe, and even fatal form.

I can assure you, Sir, in examining my own practice, few or none escaped at the distance of six years after vaccination, that were placed in circumstances favourable for the operation of the epidemic; very few at four years; and the greatest number who resisted the contagion, were either within four years, or not exposed to a concentrated and extensive application of the contagion; and, at the moment I am now writing, cases of failure are

occurring here daily, exactly in conformity to these principles ; and a few deaths have occurred, where the vaccine operation was not only performed, but the disease stated to have run its regular course.

From an attentive examination of many of the publications upon this subject, and more especially those which have appeared lately, viz. Dr Monro, Dr Dewar, Dr Thomson, Mr Hennen, and the Dispensary, you will find these peculiarities attach to the practice of medical practitioners in general ; extending to from two to four children in one family, whether vaccinated by the same, or by different practitioners, at the interval of years. Indeed I will venture to assert, if proper steps are taken to secure the application of an active contagion, three vaccinated cases out of four will be found to be influenced by the epidemic, if the vaccination exceeds six years. In some instances, I have seen families, where the whole of the vaccinated cases yielded above four years from vaccination, if I was allowed to regulate the application of the epidemic. Indeed, Sir, it was from tracing the regular progress of the contagion through the families of a whole village,—vaccinated by a great number of practitioners, in a great variety of ways, attended with an uniformity in the result, which it was impossible could be the effect of accident,—the conviction was firmly established in my mind, that the vaccine influence upon the human body, as enabling it to resist small-pox contagion, was feeble, partial, and temporary.

I cannot close this part of our subject without noticing a fact which has been triumphantly, but, in my opinion, very injudiciously and imprudently employed, by the supporters of the vaccine inoculation, for recommending this practice to public confidence,—I mean, Sir, that cases of failure have been much more numerous amongst the lower than the higher classes of society. Surely, Sir, it is madness itself to contend we have been so base and wicked as to have vaccinated the rich perfectly, and the poor imperfectly ; and if this were the fact, the utility of our vaccine establishments must be more than questionable, as their practice is almost exclusively confined to the lower orders of the community. But, Sir, this fact can be satisfactorily explained, and is upon a little reflection quite obvious. It is well known the higher orders of society uniformly availed themselves either of inoculation or vaccination ; and as they all attend schools, and even in their amusements are still amongst themselves, it is evident small-pox contagion cannot reach them so readily ; but wherever they have been placed in the same circumstances, the same result has uniformly followed ; and now these orders of society are taught from experience, their

tenderest concerns have been no better protected than their neighbours. Indeed this fact, far from being employed as a bait and recommendation, ought, on the contrary, to be considered as the strongest argument against the practice. I am afraid those very individuals who flatter themselves with this exemption, and reject with disdain, and even horror, every attempt to expose the imperfection of the vaccine inoculation, will ultimately prove the only sufferers,—as they may avoid the influence of the small-pox contagion, while the power of vaccination is yet capable of mitigating the variolous influence, and may be afterwards infected with small-pox, when all the influence of the vaccine disease is exhausted, and left completely at the mercy of the epidemic.

Upon the whole, when we consider the great number of cases which have been defeated and rejected upon the score of chicken-pox, horn-pock, flea and bug bites, slight feverish attacks, imperfect, spurious, and unconstitutional vaccination, together with the steady and irresistible proof which experience now affords, there cannot exist a shadow of doubt, that it would be more consistent with truth to state, that those cases which have hitherto been supposed to resist the small-pox contagion, have either not been exposed to the influence of that disease,—have not arrived at that distance from vaccination which allows the constitution to be influenced by the small-pox contagion; may be those who have already been subjected to its influence, but have passed unobserved; or who, from peculiar circumstances, may resist the influence of small-pox at one time and suffer from it at another; or who are not susceptible of small-pox at any time.

The next reason I shall examine is, “that the small-pox subsequent to cow-pock is a much milder affection (a small proportion of cases excepted) than the slightest cases of inoculated small-pox; and that the chance of death is much less than even in inoculated small-pox.” The answer to these reasons has in a great degree been anticipated from what we have already stated; but it may here be observed, that these reasons cannot be allowed the smallest weight, as all the proof which the subject is now capable of, distinctly shews, that not only has this number of cases of small-pox succeeding to vaccination, progressively increased every succeeding year, but also have become in the same ratio more severe and dangerous. Besides, it must be remembered, that as all the phenomena which attend the vaccine process, exhibit a partial and negative tendency; as the antivariolous power which it imparts to the constitution is found directly, and for a year or two after uniformly, to resist the

influence of small-pox; and as experience has confirmed, that the variolous contagion exerts its power over the constitution in a few years after, in a ratio progressively increasing with the distance from vaccination, no other conclusion can possibly be drawn, with any regard to truth or fair induction, than that, in a few years more, the antivariolous influence may become *completely extinct*, and the individual left exposed to the full operation of the epidemic. Indeed, it is not to be forgot, that if a numerous, severe, and even fatal attack has already been found, not unfrequently, to have occurred at the distance of eight or ten years after vaccination,—what reason have we not to tremble when we shall come to be removed twenty or thirty! The idea is dreadful in the extreme; and, I have already remarked, no comfort can possibly be obtained from the few solitary cases brought forward by Dr Jenner, where it was stated that the constitution had been found capable of resisting the small-pox thirty or forty years after.

With regard to the argument, founded upon the small number of deaths which have hitherto taken place in those instances where small-pox have succeeded to cow pock, I must first observe, that the number of deaths are not so small as the abettors of the vaccine practice would have us to believe; and the number of deaths have not only been considerable, but are also rapidly increasing in the same ratio with the failures. It is no answer to be told, where death has ensued, that the vaccine inoculation had not been properly conducted. It is impossible now to pay the smallest attention to the arguments and assertions of the abettors of vaccination, as they have been under the necessity of confessing themselves wholly in error; but even allowing that such cases were the consequence of any imperfection in the vaccine phenomena, still it is equally the fault of the Jennerian practice, if these deviations and imperfections cannot possibly be guarded against, or controlled by any medical man whatever. But, Sir, even allowing it really is the fact at present, and were to remain so, I apprehend the cases are widely different. It is certainly the duty of parents to do what appears to be most conducive for the safety of their child, but it must also be recollected, that the immediate ease and comfort of either the child or parent, is not the object in view. The intention is, *to put the child in such a state, as to enable him to move through every situation in life, without being afterwards exposed to danger from an attack of small-pox*;—therefore, if the parent should continue to select the vaccine inoculation, notwithstanding its evident imperfections, I should conceive he is acting very improperly with a view to the future comfort of the individual

who is most interested. In the one, you adopt a decisive practice attended with a known risk; in the other you have recourse to a substitute, not only precarious and uncertain, but imparting only a temporary and doubtful security. In the small-pox inoculation, you can enter upon all the duties of social life without terror or apprehension; in the vaccine you have not only the certainty of an attack of small-pox, but even the chance of death hangs over you, and blasts all the comfort and happiness of life.

We come now, Sir, to a reason which is made use of by the determined supporters of the vaccine inoculation, which, to my apprehension, is the most singular deviation from the result of general experience to be met with in the whole history of medicine,—I mean, where they allege “that the security imparted either by the inoculated or natural small-pox, is not greater than what is obtained from the vaccine;” or, in other words, “that small-pox are as liable to occur twice in the same person as where small-pox are found to occur after cow-pock.” Indeed, this reason appears to me so ridiculous, and destitute of all truth, as not to deserve the smallest attention. But besides what we have formerly noticed, which may be considered as a sufficient answer to so strange an aberration from all experience, we shall also observe, the experience of a thousand years of the natural, and nearly a century of the inoculated small-pox, have distinctly proved, that it may be adopted as a determined general fact—whoever has once passed through the small-pox in a satisfactory manner, will not again be subjected to that disease. Surely, Sir, no one was ever heard of giving directions to those who had undergone the small-pox, not to go near them again, which is now done by those very advocates of the vaccine inoculation, to those who have placed their security in that practice. Whoever, Sir, heard of fathers or mothers being attacked a second time, when the disease existed among their children, so as to have the most distant resemblance to the failures from the cow-pock? Or whoever heard of individuals who were known to have had the small-pox being afraid to expose themselves to the influence of that disease? I will appeal to every practitioner of the smallest pretensions to character, if, in all the cases where small-pox have succeeded to vaccination, he ever saw any of the family, old or young, affected with the disease, but those who had undergone vaccination? I can conscientiously declare I have never either met with a single case where small-pox succeeded a second time, either after the natural disease or after inoculation; and I have seen thousands of cases of the natural disease, and upwards of twelve hundred cases of inoculation;

but I have seen several hundred cases of small-pox succeeding to vaccination in the last eight or ten years, and at this moment they are occurring here daily to an alarming extent. Besides, when vaccination was first introduced, it was announced as affording permanent protection to the same extent as was derived from small-pox, and not a single case of a second attack of small-pox was even then hinted at. It is also to be noticed, that this state of the failures in cow-pock only includes the space of sixteen or seventeen years, where the security afforded by small pox was put to the test, and had the sanction of a thousand;—and, add to all this, that the one practice arises from a source, and produces a disease, quite different from the one it is intended to combat; while the natural small-pox and the practice of inoculation in every respect resembles the disease it is stated and meant to prevent.

I shall here take the liberty of observing, with regard to Mr Hennen's cases of a second attack of small-pox, that, in the first place, they are to be justly suspected, *as they do much more than they ought to do*, and are not in the remotest degree connected with the proof, which even the advocates of vaccination have hitherto brought forward. I must also take the liberty to observe, that such is the state of the army practitioners upon this subject, as connected with the Duke of York and the Medical Board, it is but fair to conclude, their minds must labour under considerable prejudice. I have been eye witness to cases where death has taken place from the natural small-pox, while the vaccine process existed in perfection, and they were pronounced to be chicken-pox by the army surgeon. From Mr Hennen's own account, it would appear he still entertains doubts whether those were cases of small-pox which succeeded to the inoculations from his own child, and I think I may venture to assert, there cannot be a shadow of doubt about it. It is curious to observe even the anxiety of a private soldier to support the cause of vaccination; for it appears one of them readily declared he had had the small-pox before, and afterwards, considering the matter better, he told the truth, that he had not. Indeed, it is also highly probable none of the other two or three had had them; for soldiers all generally declare, when they enter the army, that they have had the small-pox, in order to avoid being vaccinated. It is to be remarked, the lower class of people have numerous pits and scars upon their body, from the diseases to which a want of cleanliness exposes them. Indeed, Mr Hennen's report is very imperfect upon this point; for neither the number, appearance, or situation is particularly noticed; and in one or two, the pits appear to be few, and

they are chiefly described as being upon the trunk of the body, the very place they should not be, if the pits arose from the small-pox. Besides, Mr Hennen really seems chiefly to rest his proof of their having had the disease before upon their own authority, *—certainly, after what we have noticed, of very little consequence; and it is to be remembered also, that that disease is generally caught at a time they can be no judge of it but by report; and their testimony would certainly be entitled to more attention if it had the sanction also of their parents. Again, one or two of the number are of an age to have been vaccinated, and one is mentioned to have been inoculated eleven years ago, although there was scarcely to be found in the country a medical practitioner who would inoculate for small-pox at that period, and it is therefore more probable he had undergone vaccination.

From an attentive consideration of Mr Hennen's case No. 1. I think there are good grounds for concluding it was also a case of small-pox; for it appears he had neither been inoculated nor vaccinated; and after undergoing what Mr Hennen considered chicken-pox, he was found to resist vaccination. Indeed, it is highly probable, the child of the hospital serjeant received the infection from this case.

We must also not conclude this part of our subject without remarking, the supporters of vaccination, upon the first appearance of small-pox after cow-pox, insisted, that not only was small-pox liable to recur, but that a violent disease at first was no greater security than a mild one, and the second attack was not rendered a whit less severe, but was exposed to all the virulence of the disorder. The drift of this assertion was, to convince the public, and those of the medical profession who do not venture to think for themselves, that the very great mildness of cow-pock was no objection to its efficacy. Now, however, when it can no longer be denied that small-pox have succeeded to the most perfect form in which vaccination can be given, these gentlemen have found out, that the mildness or severity of the first attack will be followed with no increase of the second attack, but will be found to mitigate it; thereby insinuating, that the previous mild disease of vaccination will always produce a mitigated attack of small-pox. It is also to be observed, these gentlemen formerly contented themselves with producing a very small number of instances where small-pox were stated to have occurred twice in the same person; but

* Merely because they were vaccinated, and their belief in the complete efficacy of vaccination was not to be shaken.

now, they do not hesitate to produce them in a ratio exactly in proportion to the increase of the cases of small-pox after cow-pock.

We come now, Sir, to a very curious, and, I rather think, somewhat whimsical attempt to defend the Jennerian discovery;—I allude to an opinion lately suggested by some medical gentlemen, “that variola, varicella, and modified small-pox after cow-pock, arise from one and the same contagion;” or, according to my apprehension, “are one and the same disease.”

It is really, Sir, truly surprising, that this vaccine inoculation, which was once so simple, so uniform, and so satisfactory, should now become such a puzzle as nearly to overturn the most established principles in the whole history of medicine, and that every well-known fact must bend merely in compliment to those who have staked their existence upon the success of vaccination. This suggestion seems to me devoid of all support from experience and analogy; and if these gentlemen are to be allowed to change their ground in this very extraordinary manner, it will certainly be a Herculean task to compel them to surrender. I am confident, Sir, none of the established practitioners of this country, unconnected with official situations, will afford the smallest support to such extraordinary deviations from all experience; more especially, Sir, when they find you have now afforded them an opportunity to declare their sentiments without injuring their professional characters, and are at liberty to think for themselves.

I can assure you, Sir, from an experience of thirty years full practice, that I have frequently seen varicella prevailing as an epidemic, and not a case of small-pox known in the town or whole neighbourhood;—that this was the case during the last winter and spring, and not a case of small-pox existed in Musselburgh. I have also uniformly observed, that varicella regularly goes through the children of the family, with all its characters, in the same manner as variola or rubeola would do; and both before and since the introduction of vaccination, it has regularly prevailed in the families where the children had all been either previously inoculated or vaccinated. The varicella has been also equally prevalent since the introduction of vaccination, and has attacked children even a month or two after they had undergone the vaccine process. It ought also to have occurred to these gentlemen, that the disease of varicella could not have been less frequent since the introduction of vaccination, for, according to even the advocates of vaccination, cases of varicella have not only been more numerous, but also have been stated to have become fatal since the introduction of

the Jennerian practice.* But I apprehend, Sir, there is not the smallest reason for torturing the proof upon this occasion, as the experience of every medical practitioner must declare, that none but the vaccinated children have been subjected to the influence of small-pox, while all the rest of the family escaped.

If more proof were still wanting, it may be observed, that if small-pox and chicken-pox proceeded from the same contagion, the chicken-pox ought also to have disappeared in the same manner which small-pox did, for a few years after the introduction of vaccination, which was not the case, as has been already noticed. Again, from the phenomena which attend the varicella, they have not the most distant resemblance to small-pox; they differ most essentially in appearance, nature, duration, and sequelæ of the eruption, and most indubitably in the danger of the disease. The one requires no treatment, and the other requires the greatest care and attention,—the one is, or rather ought never to be, fatal, and I can safely say, I never saw a single case of it approach to danger, while small-pox is of the most fatal description. It is also to be observed, the experience of our best physicians has established the same facts; having been universally engaged in attending the severe and fatal disease of small-pox, while they were perfectly acquainted with the trifling disease of varicella. The term varioloid is also clearly superfluous, and only of use to produce confusion and mystery. Experience proves the disease which has occurred after cow-pock, from the influence of small-pox, either as an epidemic, or from inoculation, to be essentially small-pox, as it has imparted the most distinct, and even severe disease, both in the form of inoculation and by contagion. To all this we may add, that any trials made to impart the varicella by inoculation have failed. †

There is still another mistake these gentlemen who have stated this opinion have fallen into, viz. that the small-pox eruption always preserves one uniform character; but I can assure you, Sir, from the experience of some thousand cases, this idea is quite erroneous. The characteristic appearance of the eruption in all its different stages, depends entirely upon the extent

* Which last cases, I have no doubt, were all instances of small-pox after cow-pock.

† It is somewhat surprising, and rather suspicious, that the vaccine practice should receive its principal support from medical practitioners connected with the army, whose practice and situation must certainly afford them very imperfect opportunities of judging.

of eruption and severity of fever with which it is accompanied ; and there are also considerable deviations in the original appearance, as well as future progress, in point of colour, form, size, and process of maturation. Nothing is also more common, than for the small-pox to continue making their appearance for three, four, five, and even six days ; and also after the fever and eruption have entirely ceased, a second crop of pustules, attended with an attack of fever, will sometimes appear as late as the sixth or seventh day ; and so much am I aware of this fact, that I take every precaution to guard against any accession of fever, as I have frequently seen so great an increase of pustules produced after the disease seemed to have been determined, as to place the patient in great danger. I may also notice a well-known fact, that two or three pustules are frequently found to precede the general eruption by at least two days, and when this occurs, I have always observed rather a tedious and copious eruption to follow.

But, Sir, there is an eruptive affection which I frequently meet with, and which may serve to reconcile some of these opposite opinions. It is known by the vulgar name of nirls and horn-pock. This disease I have found generally to attack children under four years of age. It is attended with slight fever and sickness for about 24 hours, which ends in an eruption of a few dozen of papulæ, which decay in two or three days, and very seldom suppurate. I have never observed this affection contagious, or prevailing as an epidemic,—was always solitary in a family,—had no connection with small-pox or varicella, as none of them existed in the neighbourhood at the time ; and was quite common in my practice long before vaccination was introduced. I always attributed the complaint to an affection of the stomach or bowels, as they seemed always much disordered, and the patient was immediately relieved by an emetic and purge ; and we all know, that any disorder of these organs frequently produce a cuticular eruption.

I must here advert to an observation of Dr Thomson's, contained in an article of his, published in the 36th Number of your highly respectable Journal, wherein he says, “that though Mr Brown's statement was made for the purpose of throwing discredit upon the efficacy of the cow-pock inoculation, the salutary powers of that practice in modifying small-pox seem to me to be established by his cases, (alluding to their mildness,) beyond the possibility of doubt.” After what has occurred, it surely, Sir, ill became Dr Thomson, at this period of the history of vaccination, to make such an observation. It would have certainly been much more becoming, considering

the situation his former assertions have placed him in, to have followed your liberal and candid example, and apologised for the mistakes he had committed on this subject, and the liberties he had used, in ascribing motives which never existed. Besides, Sir, I cannot exactly comprehend how it was possible to prove the facts I alleged, and still not to throw discredit upon the practice, when it was maintained, that no such defects attached to the practice of vaccination. Certainly the Doctor does not mean to contend, if still stronger proof should now exist inimical to the perfection of vaccination, its character is nothing impeached or deteriorated; or that it is our duty to conceal them in compliment to the abettors of that practice. But, Sir, I cannot conceive it possible for the Doctor's intelligence to overlook, that my cases were not only selected to prove the power of vaccination in modifying the influence of small-pox, but also to shew, this power became gradually weaker, and was at last likely to become extinct. If this was to be the consequence, and which daily experience is rapidly confirming, I think, Sir, you will agree with me, it is full time not only discredit were thrown upon the Jennerian discovery, but that it was entirely rejected.

I have now, Sir, nearly got through the different reasons urged by the zealous supporters of vaccination, for our persevering to place our confidence in the vaccine inoculation; but, before concluding, I must also notice the very improper defence which is attempted to be obtained by dragging forward the experience of other countries. It surely, Sir, cannot be fairly contended, that the country in which the disease has had its origin, and, by the exertions of which it has been extended over a great part of the globe, can possibly be deficient in that skill and attention necessary for tracing its effects and consequences; and that, after having introduced the disease, we must surrender up our qualifications for farther observation, to the medical practitioners of other countries, and only in future be directed by them. The doctrine is so monstrous and absurd, as to require no further comment. On the contrary, Sir, I apprehend, a heavy responsibility rests upon the medical profession of this kingdom; and it is our peculiar duty to watch over the practice with the most anxious and disinterested concern, that we may not only guard our own, but the security of those whom we have encouraged to place their confidence in the Jennerian discovery, and not allow ourselves to be detected and exposed by those who, in this disease at least, we are entitled to take precedence of; for it is particularly to be remembered, that the vaccine practice is exactly following the same

course it has done in this country, and cases of failure are rapidly cumulating in every situation; and notwithstanding the absolute power of the late tyrant of France, and the means which he employed to render it universal in his capital, Paris is at this moment suffering under a severe epidemic small-pox, and many instances of failure daily occurring.

I must also notice, that the determined friends of vaccination, with a view to promote that practice, represented the small-pox inoculation as replete with danger and distress. The consequence of such conduct has been, that those who from experience found no security from the practice of vaccination, were prevented having recourse to inoculation, and, of course, neither used the one or other, and determined to await the attack of the natural small-pox, and so exposed their families to the most distressing consequences. Even those who were still willing to employ the small-pox inoculation, could not have their wishes gratified, as it was considered contrary to the duty of a medical practitioner of any pretensions to character, to inoculate in any other form than that of vaccination. Nay, even the Court of King's Bench was, I hope inadvertently, made to contribute to the universal horror entertained against small-pox inoculation, and to support the character of vaccination. The National Vaccine Establishment, finding they were not able to get a bill carried through both Houses of Parliament, for preventing small-pox inoculation, and rendering that of cow-pock compulsory, they availed themselves, at the suggestion of Lord Ellenborough, of an old law for the prevention of the spread of any contagious disease, and brought before the Court of King's Bench any of those who had their children inoculated for small-pox, and who had carried them out of doors on the public road, and had them convicted as contravening the statute. I am convinced, however, the learned Lord had entirely overlooked, that law could not, with any propriety, be applied to such cases, until the practice of inoculation was forbidden by *law*; for surely there was no similarity between the spread of a disease, which it was wished to check and avoid entirely, and an expedient which had been practised for nearly a century, as a wholesome means for counteracting the ravages of a dreadful disease, which experience had taught the different nations of the world, they had but little or no prospect of avoid-

* It is much to be regretted that interested individuals can be so foolish as to introduce into the public prints pompous notices of the success of the Jennerian discovery, when they are well aware of the great doubts which now exist upon the subject.

ing. I am convinced his Lordship entirely overlooked, that it was perhaps both cruel and unjust to prevent those who chose to avail themselves of this wholesome expedient, to use the proper and necessary means for getting through the disease with safety, more especially, too, when the said law had never been put in force in cases of small-pox inoculation for nearly a century;—for certainly it would have been the height of cruelty and injustice, to prevent those who then placed their confidence in inoculation, obtaining the full benefit of such an important discovery, merely because others were so stupid or ignorant, as not to be sensible of its benefit.

It is also not to be forgot, that the abettors of the vaccine practice have produced a favourable impression of the benefits of vaccination, by stating, that an immense increase of the population of Great Britain has been the consequence of its introduction. Now, Sir, the fact is, that although the vaccine disease is perfectly safe, and affords protection against small-pox to a certain extent; still the bills of mortality in London, Glasgow, and Liverpool, or wherever they are kept, show there is no such saving produced by the reduction of the annual number of deaths, and that the mortality, upon the whole, annually, is fully greater than before the Jennerian discovery was introduced. If, therefore, such is the fact, it is possible, that while the practice of vaccination is capable of mitigating, to a certain extent, the disease of small-pox, it may increase the severity of some other diseases;* and, if this is the case, it does not signify whether our families are cut off by small-pox, or by measles, fever, &c. Indeed, Sir, I have been long of opinion, that the influence of cow-pock is of a sedative nature, from what I have observed in the measles. It has appeared to me, that the attack of measles, in those who have been vaccinated, is frequently deficient in the fever necessary to produce a speedy eruption; and I have been in the habit, for these many years past, of assisting nature to bring the disease to this crisis, and have generally succeeded to conduct the patient safely through the after stages of the disease. I may also take notice of a fact, which may serve to throw some light upon the immense increase of population, which the last census produced, viz. those who were employed to take down the numbers in a great many instances, if not in all, took down the numbers which *belonged* to a family, and not those who actually *formed* the family at the time,

* I think I have observed an increased severity in scrofulous cases, and a more early occurrence of phthisis pulmonalis; and my experience corresponds with those who think the measles are rendered more severe and fatal.

by which means, a vast number were taken down twice. The consequence of all this foolish and criminal conduct has been, that, for these six or eight years past, the ravages of small-pox have been nearly as great as before the Jennerian discovery was introduced.

I have now, Sir, brought the observations, which appear to me necessary upon the present state of the vaccine inoculation, to a conclusion; and I trust I have made out a case, which calls for the immediate attention of the medical profession. From the opinions I at present entertain, I feel highly alarmed for the public comfort and happiness, and deeply anxious for the dignity and honour of our profession. If the present proof shall be confirmed, society must be thrown into universal consternation. The parent, the husband, and the child, must be exposed to the most dreadful state of anxiety, distress, and danger;—their intercourse with the world must be timid, limited, and vexatious; and every source of comfort blasted by the most distressing apprehensions.

The length of time we have already persevered in the practice, involves the most troublesome and distressing consequences, and if we shall still go on, without a strict and impartial inquiry, we shall not only lose all claim to intelligence and integrity as a profession, but certainly expose ourselves to the charge of folly and guilt. In my opinion, Sir, the proof which attended this subject, eight years ago, was such as ought to have made us come to the same conclusions we have now done, and the profession would have saved themselves and the world much trouble. I trust and hope, Sir, we shall no longer be overawed by the opinions of constituted authorities; neither shall our having formerly acknowledged, without reserve, the perfection of the discovery; nor our granting national rewards; nor our anxiety for preserving the accuracy and consistency of the profession; nor the necessity of renouncing the violent defence which we made to the equally violent and most unreasonable efforts of the antivaccinists, be urged as an excuse for refusing to confess our errors. Fortunately, still much may be done by instituting a public inquiry into the present state of vaccination. The medical profession too, in this kingdom, will, by so doing, be in a great measure discharged from censure, and will prevent their brethren, in any other part of the world, from obtaining the pre-eminence of having detected and exposed our blindness, obstinacy, and credulity. Both Parliament and his Majesty's Government have entrusted this subject into the hands of an establishment, naturally concluding, they would anxiously watch over the public interest and safety. I am afraid, however, this

subject affords but too many proofs of the alarming influence of opinion, and how readily the public interest may be sacrificed to the systematic and party sentiments of individuals. Indeed, Sir, so much am I convinced of the necessity of an immediate investigation, that, as Dr Jenner's best friend, I would advise him to come forward, and acknowledge the adverse circumstances which are now found to attend his discovery. It is evident, Dr Jenner's character could not be hurt by such a measure. Every medical man, of the smallest pretensions to candour, must allow it possesses antivariolous powers, of a remarkable nature; that the phenomena which attend the discovery, were sufficient to encourage the most flattering prospects; that Dr Jenner acted as a correct inquirer, and is fully entitled to the public remuneration he obtained.

The question, Sir, appears now, indeed, to be contracted into a very narrow compass; and, in order to come to a perfect understanding upon the subject, we have only to investigate the following queries:

1st, Can the circumstances, which experience proves, attend the vaccine inoculation, as an uncertain, feeble, and temporary antidote against small-pox, be in any way guarded against and prevented?

2d, Can the practice of vaccination be still recommended for general adoption, notwithstanding the defects which are now known to accompany it?

3d, Is it possible, with our present proof, to expect the extinction of small-pox, by persevering in the vaccine inoculation?

4th, Could the practice of vaccination be trusted to as effectual for the public safety, against the ravages of small-pox, if assisted by laws similar to those we employ in counteracting the plague?

5th, In the event of cow-pock being found inadequate for the purposes for which it was introduced, what are the best means for remedying the bad consequences which are likely to happen those who have placed their security in that practice?

It is both unnecessary and superfluous for me to enter at present into the examination of these queries. I can assure you, Sir, I am no farther an enemy to vaccination, but what proceeds from an attentive observation of facts, and which a sense of duty has compelled me to make public; and I shall think it my duty to continue the practice, until publicly and generally allowed to be improper; but I frankly declare, I think it would be sporting with the happiness, comfort, and lives of the public, were we to continue to place our security against the dreadful disease

of small-pox, by employing the vaccine inoculation attended with its present defects; and, in order to put an end to all the violent disputes upon this important subject, I beg leave to suggest, for your consideration, the following plan for obtaining the necessary investigation.

I should recommend, as an indispensable preliminary, that the investigation should be taken entirely out of the hands of the members of vaccine institutions. I would advise, that the medical colleges of London, Edinburgh, and Dublin, should appoint a committee from their colleges of physicians and surgeons, of such number and character, as they know to be best fitted for so important an inquiry. That each of these committees should collect the proof which their respective kingdoms afford, and transmit such proofs, with their sentiments thereon, and the number of votes and divisions upon the different points which the subject involves, to his Majesty's government, and request the said proof to be submitted to a committee of both Houses of Parliament, and for them to take such steps, as in their wisdom they may think fit.

In order to obtain satisfactory information from the different practitioners, I would propose, they should be requested to answer the following queries; but taking care, in the first place, to inform them, they wish them to lay aside all former opinions and prejudices in favour of cow-pock; that they do not wish them to avail themselves of the excuses of perfect or imperfect; local or constitutional; genuine or spurious; chicken-pox or bug-bites; but to answer the queries, according to what has occurred to them, and henceforth, to report to the said committees every case which shall bear upon the subject.

1st, How many vaccinations, upon a rough calculation, may you have conducted?

2d, Do you not consider, that, having obtained a vesicle with an areola, succeeding to and attending it, you have imparted the disease in its best and satisfactory form; and that, if you either immediately vaccinate again, or inoculate and expose them to small-pox contagion, they will be affected with neither?

3d, Does your experience enable you to say, that although the vesicle and areola may vary in size and colour, still the antivariolous influence is communicated to the constitution?

4th, Are you aware of any ability or dexterity in a medical practitioner, whereby he can undertake to conduct the process of vaccination, without being occasionally liable to undergo sensible variations in the phenomena which that disease assumes?

5th, Have you met with cases of small-pox succeeding to vac-

cination, where the characteristic features of small-pox were distinct and well defined, and what number ?

6th, Have you met with cases of an eruption, which appeared to resemble small-pox, and the small-pox only epidemic in the neighbourhood or family, and what number ?

7th, Have you met with a trifling eruption of papulæ, which only kept out three, four, or five days, and no other eruptive disease prevailing in the neighbourhood, or in the house itself, except small-pox, and what number ?

8th, Did the extent and distinctness of eruption correspond with the distance from vaccination ; always, however, bearing in mind, that the violence, extent, and mode of application of the epidemic, might have a considerable influence in affecting the attack of small-pox, which succeeded vaccination ?

9th, At what age did you observe the attack of small-pox to succeed vaccination, and at what distance from vaccination ?

10th, Where small-pox was either introduced into a family, by attacking those who had been vaccinated, or by attacking those who had neither been vaccinated or inoculated, have you seen those who had previously undergone either the natural or inoculated small-pox, again attacked at that time by the disease ?

11th, If you have seen any instances of the second attack of small-pox in the same individual, you will notice particularly, whether you have seen both attacks yourself, and if not, upon what authority ?

12th, Do you consider such cases of a second attack of small-pox, equally numerous with those cases where small-pox have occurred after vaccination ?

13th, Do you see any necessity, either for introducing a new term for the disease which has succeeded an exposure to small-pox contagion after vaccination ; or for supposing that such disease can be considered as chicken-pox ; or that small-pox, chicken-pox, and small-pox after cow-pock, are from one and the same contagion ?

Lastly, If there is any other information, which you may consider of importance on this subject, which answering these queries does not embrace, you will be so good as state it.

This, Sir, or some such plan, I should conceive likely to produce a result that might satisfy all parties ; and, I firmly trust, you will use your endeavours to accomplish so desirable an event. After the liberality and candour you have evinced on this subject, I have no hesitation in declaring my firm conviction, that you will not only attend to my interest on this important question, but will use all your influence to obtain an impartial

investigation, and will no longer allow the lives and happiness of society to be sported with. Every day produces some new and striking evidence, and calls loudly for a distinct, explicit, and decisive declaration. Every hour that passes is accumulating the anxiety, distress, and danger of individuals, and increasing, in an incalculable proportion, the public confusion and disaster that must ultimately ensue.—I am, &c.

Musselburgh, 16th November 1818.

Note by the Editors.—The weight given to our opinion and influence by Mr Brown, renders it necessary for us to say a few words in explanation. When we stated that we had become partly converts to Mr Brown's doctrines, which we had formerly strenuously combated, we had chiefly in view our change of opinion in regard to the absolute antivariolous power of vaccination. On some other points we also agree with Mr Brown; but we still differ from him on some of the most important, especially the effects likely to result from the introduction and continuance of vaccination.

XI.

Case of Malformation of the Kidneys. By ANDREW SMITH, Army Medical Staff. (*With an Engraving.*)

JOHAN BERRYMAN, aged 38, 14th regiment of foot, was admitted into hospital on the 17th August 1817, labouring under remittent fever, which proved fatal on the 9th November. On opening his body, in addition to the morbid appearances usually observed in such cases, the following remarkable formation of the kidneys was detected, which no symptom previous to his death held out the least reason to expect.

These bodies, when examined *in situ*, after all the surrounding viscera, with the exception of the urinary bladder, had been removed, showed some resemblance to the figure of the letter V, being regularly united at their lower extremities on the third and fourth lumbar vertebræ, over the aorta descendens and vena cava inferior, to the former of which they were connected by an arterial branch of about the size of a crow's quill, (in addition to the regular renal arteries), which entered their substance immediately at the line of union *D*, marked both on their anterior and posterior aspects by a sulcus or groove, the former of considerable depth, the latter very slight; but, upon the most minute examination, no corresponding vein could be detected. From the point of junction they gradually separated from each other,