# Observations on vaccine inoculation; tending to confute the opinion of Dr. Rowley and others / [Henry Fraser].

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# **OBSERVATIONS**

ON

## VACCINE INOCULATION;

TENDING TO CONFUTE

THE OPINION OF

Dr. ROWLEY AND OTHERS.

BY HENRY FRASER, M. D. &c.

Ο γράμμαθων απειρος ο βλέπει Ελέπων. MENANDER. Tunc cum ad canitiem, tunc, tunc, ignoscere-nolo. Persius.

It is by experiment and rational induction alone, we can extort truth LORD BACON. om nature.

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#### JAMES, SIMS

D. L.L.D. F. A.S. aug B. Is. Acan Pars. Men. Soc. Loun. Sc.

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## ROBERT WILLAN

M D. F.A.S. &c.

THIS PAMPHLET, THE SEC.

AS A TRIBUTE OF ESTEEM AND RESPECT

TO THE POSSESSORS OF

ALL THE WIRTUES WHICH ADORN HUMANITY

IS HOMBLY INSCRIBED,

BY THE AUTHOR.

Hatton Garden, D 5, 1, 1805.

## JAMES SIMS,

M.D. L.L.D. F.A.S. AND R. IR. ACAD. PRES. MED. Soc. LOND. &c.

AND

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## **OBSERVATIONS**

ON

## VACCINE INOCULATION,

&c. &c.

COME time ago I resisted the solicitations of many of my medical friends, who wished me to publish the result of my experience on this important subject, under the influence of a decided determination never to enter the lists as a controvertist, unless the name and justly merited reputation of my late sincere and much-lamented friend and tutor Dr. Woodville, should be either directly, or insidiously attacked. Under such circumstances however, I was prepared to advance to the contest with all the courage of Diomed, aided by all the caution of Ulysses. I would have thundered into the ears of envy with the voice of conviction founded upon experiment and truth, and drowned the lispings of calumny in the whirlpool of confusion. Fortunately such exertions have not hitherto been required of me, and it is my most fervent prayer that they never may.

But so many obstacles are daily thrown in the way of those, whose benevolence leads them to engage ardently for the firm establishment of this most useful, most efficient practice; so much obloquy is unjustly and illiberally employed with the view of exciting popular prejudices; and having some claim on the ground of experience to be attentively heard in support of vaccination, duty and philanthropy alike induce me to rescind my resolution, and exert my humble endeavours for the support of the common cause.

My claim to be attentively heard in support of vaccination arises in some measure from having been educated under the eye, and after the plan of the late Dr. Woodville, whose abilities were surpassed by none, equalled but by few of the many physicians in this metropolis; added to this, I have seen as much of the practice of this inoculation, as well as the casual disease, both as it appears in the human subject and the brute, as any practitioner, except the worthy surgeon at the Inoculation Hospital.

Let the faithful and truly zealous friends of vaccination forget all their differences on unimportant minutiæ; let them rally round one common standard for the support of one common cause. Let their labours in this most rich, and fruitful field be conducted with a courage and unanimity, which the history of medical science has never paralleled; if, in addition to these almost absolutely necessary things, they will but remain firm and true to each other, they must present a phalanx so formidable, as, armed with the justice of their intentions, will render them invincible. At the very first judicious, and well-directed assault, their adversaries will be completely discomfitted, and gladly retreat to hide their diminished heads in some obscure corner, from whence reflection may, if possible, be excluded.

The civic crown, with which, as a reward for their patriotic exertions, in endeavouring to rescue their devoted fellow-creatures from the direful effects of this pestilential disease, they had, in the fulness of their vanity presumed to adorn their brows, shall be rudely torn from them: the laurel branch, which, as an emblem of their victory over the combined powers of all the benevolence and ability of the kingdom, flattery had induced them to wave in their hands, shall be instantly snatched away; and they shall ultimately find to their then unavailing sorrow, that their excessive indulgence of that vice by which the angels fell, will raise them to a pinnacle where their sight shall grow dim, their heads turn giddy, and their whole senses being entirely bewildered, they shall be again precipitated to the humble earth, their proper element.

It is not my design to follow Dr. Rowley through all the intricate mazes, which the prolusions of a most eccentric imagination have induced him to wander; for I have neither leisure to admit of, nor inclination to execute such a task. But I

sincerely hope, that zeal for this national cause, which is in fact a question of no less importance than life and death, will never carry me so far as to forget for a moment the liberality and politeness due to the very respectable character of a physician, and a member of one of the most illustrious universities in Europe. I cannot however avoid observing, that he, and another most respectable and learned physician\* in this metropolis, have been employed in a manner altogether unworthy of themselves and their general character, in endeavouring to excite popular prejudices to the extent almost of indignation and fury against a cause which, they must be well aware, the combined proofs of common sense, logic, and reason, entitle to the most unlimited confidence and approbation.

It is prudent, and indeed necessary to add, I am credibly informed, that many, if not most of Dr. Rowley's assertions are extremely inaccurate, and believe, that a celebrated charactert is at this moment very busily and laudably employed in collecting the most conspicuous proofs of such circumstances. Far be it from me to insinuate, that Dr. Rowley would at any time sacrifice truth at the shrine of his hypothesis; no, I would rather suspect. that he has been frequently misled by the officiousness of his underlings; but nevertheless, it behoves him to ascertain with the most scrupulous exactness

<sup>\*</sup> Dr. Moseley. † Dr. Thornton.

the authenticity of all his assertions before they are committed to paper as facts; and if even Dr. Rowley should persevere in the neglect of this salutary caution, his respectability and reputation will speedily dwindle into a very mean capacity.

It is my intention to divide this little tract into four divisions; and I humbly hope to be enabled to prove each of my propositions so clearly, as to place the questions contained under those separate heads at rest for ever.

and satisfactorily performed, is a certain and invariable prophylactic against the future assault of variola.

2d. That the most malign cases of vaccine inoculation are comparatively milder than the most benign cases of variolous inoculation.

3d. That the vaccine inoculation not only prevents the future occurrence of variola, but that it possesses considerable influence over the casual disease, if performed at a proper period, and also that it reduces the virulence of another disease particularly destructive to the inhabitants of this island.

4th. That it possesses incalculable advantages over the inoculated small-pox by not being contagious by effluvia.

We do not mean to establish our first proposition on the basis of that well-known logical axiom, 'Exceptio probat regulam,' which we conceive may be introduced with a far more happy and indeed safer effect in common disputations, than in the adjustment of the practice of physic; on the contrary, we intend, that the demonstration of our positions should rest solely on the fulcrum of experience.

Although it be a matter of sufficient notoriety, that this prophylactick power of the cow-pock has been known to a few, and those few generally illiterate people, for a long series of years; and although it be allowed to be equally true, that the matter of this disease had been employed in inoculation from one human subject to another long prior to the experiments, which were instituted and related both with candour and ingenuity by Dr. Jenner; still there will be surely found no one bold enough to assert, that any national benefit was derived from these occurrences; and if not, it must be sufficiently obvious to every rational and unprejudiced man, that Dr. Jenner not only merited the trivial remuneration he has received, but five times more, if the state of the public purse would warrant such an expenditure.

No one can fairly, or reasonably suppose, after these premises, that it is my wish to depreciate, or detract from the hard-earned reputation of Dr. Jenner: still however I deeply regret, that he did not follow the advice which Dr. Woodville gave him, upon being requested to peruse the manuscript of his first treatise on this subject prior to its publication. The part which Dr. Woodville objected to, was the opinion broached relative to the origin of this disease, than which nothing can be more con-

teary to philosophy, analogy and experiment. Had Dr. Jenner resolutely expunged this favourite but fanciful, and unfounded hypothesis, it would have proved most fortunate for himself and the credit and success of his discovery; but elated by the dazzling prospect which was expanding before him, his heart bounding under its influence with the genuine essence of benevolence, he neglected this most salutary, most necessary caution, and thereby verified the assertion of Demosthenes, that, 'it is ordained by fate, for most men, when successful, never to be wise.'\*

The friendship, which had long previously existed between Dr. Woodville and Dr. Jenner, was not interrupted by this circumstance, nor would it have been ever impaired, had not the artifices of a third person been employed, into whose snare the former inconsiderately and unfortunately fell. His esteem for Dr. Jenner ceased but with his life; for a very few days previous to his decease, when conversing upon this subject, he paid the character of Jenner the highest compliment it is possible for any man to bestow upon another, by pronouncing him one of the Creator's noblest works, an honest man.

We hope the generous reader will pardon this digression, when he considers the motive.

It is not more surprising than unfortunate, that Dr. Jenner ever conceived this ill-fated opinion, and

Tois wheistois imaglai medinol' in ngallorlois provint. Demos thenes?

it is still more to be lamented, that both himself and some of his friends should even at this time obstinately adhere to, and pertinaciously contend for, the truth of an hypothesis, which has been long since controverted by an abundance of experience, condemned by the united voice of prudence and common-sense, and is now too well known to be extremely hostile to the firm establishment of their far more benevolent and important intentions.

The obloquy, which this hypothesis has excited against the practice of vaccine inoculation, among the higher, as well as the lower class of society, is incalculable, and the mischievous consequences must be proportionate. It is in fact this, which has arrested the progress of a most happy, most salutary discovery; it is this which has retarded the steps of the benevolent, and it is this ever to be regretted position, which has afforded the most firm basis for the enemies of vaccination to raise their superstructures upon, for, when these superstructures have proved more durable than the mere bubbles of a chimera, they have been uniformly raised upon such a foundation. As we consider the longer existence of this hypothesis, and the death of vaccination to be nearly allied; and as we are most thoroughly convinced of the numerous important, but ill-appreciated benefits, which daily flow to mankind from this pure and uncontaminated fountain; we are consequently the more anxious to enter our caveat against the further perseverance in this dangerous and erroneous path, and willing to exert our

humble endeavours to the utmost, not only to controvert, but to extirpate this unsound, this unphilosophical doctrine, root and branch. We should always endeavour to swim against that stream, which hurries us into error, and delusion. It is a matter no less true, than extraordinary, that Dr. Jenner's opinion has been more implicitly received by the generality of practitioners on this part of the subject than any other, perhaps because this was the only position which he could not maintain. We proceed to the dispassionate review of this interesting and truly important subject.

The experiments with the matter of grease from the horse's heels, which were so injudiciously made, so carelessly attended to, and so incoherently related by Mr. Tanner about three years ago, experiments, which were announced in this metropolis with so much satisfaction and confidence by the zealous supporters of this doctrine, and by them considered and insisted upon as incontrovertible, have long since, notwithstanding the friendly polish given to Mr. Tanner's original communication by the editors of the Medical Journal, sunk into a justly merited oblivion.

Our ignorance of the diseases of horses induced us to fear, that the experiments, made and related with apparent candour by Dr. Loy, would prove a stumbling block to our design; and this fear was somewhat increased by understanding that Dr. Jenner himself placed great confidence in these experi-

gerous and erroneous path, and willing-to exert our

ments; but an hour's conversation with that most useful member of society, the ingenious professor at the veterinary college, entirely dissipated all our alarms; and we have his authority for asserting, that the disease, which furnished Dr. Loy with matter for his experiments, was most essentially different from the grease, and indeed such a one, according to the Doctor's description, as never yet came within the range of his experience in the diseases of that animal. The evidence of this gentleman may be therefore fairly and successfully turned against the cause it was intended to support; for let the nature of the disease produced in the cow by these experiments, have been whatsoever it might, the authority of Mr. Coleman is far more than sufficient to convince us, that it did not originate from the grease of the horse's heels. The nature of this peculiar affection in the horse does not admit the probability of such an occurrence, nor do any of the dairy farmers in the various counties of Oxford, Wilts, Gloucester, or Worcester, with whom I have had opportunities of conversing on this subject. bear testimony to the truth of such an opinion.

My own experience supplies me with the means of citing two instances, where the casual cow-pox raged amongst those domestic animals kept upon two farms, where no horse of any description was employed, nor had any new cow been admitted to either of these pastures for two preceding years. I had a fair opportunity of ascertaining that this was

the genuine disease, from the convincing circumstances of a maid servant on each becoming affected from milking the cows, both of whom have repeatedly and uniformly resisted the action of va riola, whether applied by effluvia or inoculation. Now if the cow-pock can be produced without the agency of the grease, as this narrative renders sufficiently probable, the consequent inference must be, that this agent is by no means necessary to the production of the disease. Also, if the cow-pock be a certain prophylactic against the small-pox, which, notwithstanding all the assertions made to the contrary, abundant experience doth most incontrovertibly testify, and if the matter of grease were in reality the original cause of this disease, it ought to follow as an indispensable consequence, that the one should have the same salutary influence over the constitution, when experienced, as the other, which we will prove to be in hostility with a fact. The dear-bought experience of Mr. Tanner strikingly confutes such a position, for when he was a student at the veterinary college, he became affected with a very peculiar disease, contracted from dressing the greasy heels of a horse. This person had never had the small-pox, and so strongly was his mind impressed with the validity of Dr. Jenner's assertions on this subject, that he peremptorily refused to be inoculated either for the vaccine or variolous disease, stating with the utmost confidence, that he was secure from both. The bad

After the lapse of some time, Mr. Tanner consented to be inoculated for the small-pox by the late Dr. Woodville, and there can be little doubt, admitting that any inference can be fairly drawn from his having suffered severely from the inoculated disease, that, if he had accidentally become infected with it in the interim, he would have fallen a victim to his ill-founded and obstinate credulity.

Although the experiments of Mr. Coleman and others, who have repeatedly failed in their attempts to produce this disease from the grease, amount only to negative proofs, still such proofs must be certainly sufficient to convince any unprejudiced person, that the cow-pock never was, nor ever will be produced from such a source. We have now, therefore, no hesitation in asserting, that the cow-pock does not originate from the cause which Dr. Jenner and some of his friends have supposed, and in vain attempted to establish.

My own opinion of the origin of this disease is certainly original, and, I believe till lately, that it was also singular: but, my learned friend Dr. James Sims, has broached the same idea in a paper read before the Medical Society of London, and publised in the last volume of their Memoirs. I believe that the small-pox and the cow-pock are one and the same disease, under different modifications, and I have found in the course of conversations with some of the most eminent medical and chirurgical cha-

racters in the metropolis, that, after having attentively listened to many of the arguments which may be fairly adduced in favour of this opinion, they have appeared often to incline to the same belief. I am aware that this proposition may be considered by some equally fanciful and absurd with Dr. Jenner's; but at the same time let them remember, that it is at least supported by analogy, philosophy, and, of course, probability-although not, in the present state of our knowledge, by experiment. I do not intend to insist upon this doctrine as incontrovertible, nor even to enter largely at present into its merits, with the view of establishing it; but shall content myself with observing, that such a circumstance would answer two most important and useful purposes.

First, it would render the practice of vaccine inoculation general, by reconciling the minds of the people, who are now imposed upon and intimidated, and, in fact, shocked at the idea of its filthy ancestry.

Secondly, it would place Dr. Jenner's discovery upon a rock, by depriving the antagonists of vaccination of their only successful line of argument.

It is also both necessary and proper to remark another circumstance, which has tended not a little to injure the reputation of this inoculation, and that is, the illiberal and unwarrantable inferences which have been frequently drawn by many from the appearance of the arms of patients, who have

been inoculated with variolous matter, after vaccination. The arm under this experiment, will in a proportion of secure cases, go regularly on to the sixth, seventh, eighth, ninth, tenth, eleventh, and even twelfth day from the insertion of the matter, but in these cases there is rarely any constitutional symptom produced---and at whatever period the inoculated part begins to recede, the recession is so rapid, that in the course of two or three days no trace of the second inoculation is to be found. I have never made any experiments with matter thus produced, but am assured by Mr. Wachsel, that the insertion of it into the arms of patients, who have never experienced either the cow-pock or the smallpox, is uniformly followed by the latter disease. This affords no fair argument against the utility of vaccine inoculation, and there can be little doubt, that many of the failures related are of this nature.

My own experience affords me evidence, more than sufficient to prove to the satisfaction of unprejudiced minds the truth of my first proposition, but, as this is the most important part of our doctrine, we will adduce other evidence resulting from the most indubitable authority.

I know myself to be perfectly correct in stating, that no failure has happened in any of the cases inoculated under the immediate direction of the late Dr. Woodville, or in other words, of those which he pronounced secure from the future occurrence of variola, although the majority, if not the whole of

these cases, have been since subjected to the action of variolous matter, in variolous ways.

I amalso credibly informed, that all the patients, who have received the infection from the hands of Dr. Jenner, remain perfectly safe.

We may also mention, as a corroborating proof of the prophylactic power of the cow-pock, a number of experiments which have been lately made at the Foundling-hospital, and related on an authority, which places scepticism itself at defiance.

I have been informed of five instances, and have indeed seen three of these in the counties of Gloucester and Worcester, where the subjects were infected with the casual cow-pox fifty-seven years ago; seven who were under the influence of this disease forty-five years since, and nine between twenty and thirty years since; all of whom being, as I am assured, aware of the power of this disease, have exposed themselves without fear or reserve to the effluvia of small-pox many times, and have as often resisted the contagion. Three hundred and seven private patients have been inoculated by myself since the first introduction of this practice, and, although they were of all ages, from three days to seventy-five years, I never failed to communicate the infection by the first inoculation, except in two instances.

All the cases, which I have mentioned, appeared to be satisfactory at the time of inoculation, except the two just alluded to, in both of which the progress was irregular, and consequently excited my suspicion, which I immediately mentioned to the parent; and being the grand-children of one of the most learned and respectable dignitaries of the church in this country, the opinion of Dr. Woodville was obtained, who decided in favour of the security of the cases, which subsequent experiments have amply proved to be correct. Two hundred and fifty-four of these cases have been exposed to the action of variolous matter; some by effluvia, some by inoculation, and others by both methods: but they have invariably resisted all attempts to infect them, and I would willingly offer my head, as an hostage for the remainder.

Since the day on which vaccine inoculation was first introduced in this town, it is estimated that between four and five hundred thousand have been subjected to its effect in the United Kingdom, independent of those to whom this disease has been communicated in every habitable quarter of the globe, from the original stock of matter sent from We will therefore admit, for the sake of argument, that some well authenticated cases of failure have come to light in this country, for none of our brethren in the profession have announced any from other parts of he world. We will admit for a certainty, that in conformity with a law of the animal economy, one in ten thousand shall be regularly liable to the small-pox after vaccination. Yet I would ask with confidence, what does this

amount to? What we have admitted is merely gratuitous, and by no means probable, while on the other hand, we know full well from a most enlarged and accurate calculation, that one in a thousand at least will uniformly fall a victim to variolous inoculation, and that even under the most scientific treatment; not to say one word of the many, whose lives are endangered, of the several whose constitutions are irreparably ruined, and of some, whose beauty, a point of no small concern to females, is utterly destroyed. Not to make one comment upon these attendant circumstances, I will willingly resign the task of drawing the comparison to any just, reasonable, and unprejudiced man, and readily pledge myself to abide by his decision. If there should be found any who are disposed boldly to assert the inaccuracy of this calculation, I would only mildly remind them, that conjecture never amounts to fact, nor has mere assertion the force of argument.

It has been argued, and good authority has been adduced in support of the argument, that there are not a greater number of persons liable to the small-pox after vaccination, when judiciously performed, than are liable to the former disease a second time.

The professed object of this dissertation being the promulgation of truth, we are compelled to declare, that the experience of Sir Wm. Watson, Dr. Archer, Baron Dimsdale, and Dr. Woodville, did not com-

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prise an instance of this nature, nor does our own experience present us with a fairly marked case of small-pox existing a second time in the same person. I am here reluctantly obliged to invalidate the narrative given in the last Medical Journal, by Mr. Ring, to whose politeness I am indebted for the estimate of the number inoculated in the United Kingdom; but justice to the public and myself, and a due regard to consistency in this paper, imperiously demand it. I will therefore briefly observe, that the statement of the second occurrence of small-pox in the same person, under the authority of Dr. Woodville's name, is inaccurate, and Mr. Wachsel, who inoculated this patient, authorises me to affirm that the inoculation was noticed to Mr. Ring as unsatisfactory and irregular. We do not, however, mean to deny the possibility of such a circumstance, some apparently well authenticated cases of which have been published by the ingenious Mr. Trye of Gloucester, through the medium of a newspaper. It were to be wished that he would mould those instances into the form of a pamphlet, and relate them with his usual accuracy and perspicuity. Dr. Ivory has also more than once related both to Dr. Woodville and myself, a case of this kind, which certainly carries something like conviction with it.

Thus I flatter myself, the first and most important proposition is fairly demonstrated upon the evidence of incontrovertible facts; and moreover, that it is strong enough to resist the united assaults of the enemies of vaccination.

It may be expected that I should here introduce a description of the progress of the inoculation in those cases, which experience authorises us to pronounce secure from the future assault of variola; the difficulty attending the accurate delineation of the various appearances from time to time, must apologise for its inelegance.

We can generally ascertain that the inoculation has taken, both by the eye and the finger, on the third day from the insertion of the matter, a very small inflamed and circumscribed elevation being then evident.

On the sixth day this tumour contains a lymphlike fluid, and on the eighth day the vesicle is complete. On the ninth day the areola makes its appearance, and is perfect on the tenth. The constitutional effects produced by vaccination commonly commence on the eighth, and terminate on the tenth, so that the whole of the indisposition is generally confined to these two days. This is the most regular appearance of the areola, but it is sometimes manifest rather sooner, and that more especially in very young children, or those whose systems are irritated by dentition and other causes. On the tenth day this disease is to be considered as at its acme, for on the eleventh the areola recedes, the vesicle begins to dry in the centre, and assumes on the twelfth the semblance of a mallow-seed. On the fourteenth

day the scab begins to form, which is commonly of a dark brown colour, and is completed about the eighteenth or twentieth day. It falls off at different periods in different patients. If the inoculation be performed by a simple puncture, the consequent tumour, in a great proportion of cases, assumes a form completely circular, and continues circumscribed, with its edges elevated, and its surface flat throughout every stage of the disease. The contents of the vaccine tumour rarely becomes puriform, unless from some accidental circumstance; and the scab, which succeeds, is of a harder texture, and differs in its colour from that which is formed by the concretion of pus. Vide Woodville's Reports. This is to be regarded as the most regular form of the disease, any deviation from which ought to be most scrupulously enquired into.

As there are some circumstances connected with vaccine inoculation, which it is utterly impossible to demonstrate upon paper; and as many of the phenomena are but comparatively speaking, very superficially known to many; we are extremely anxious to establish a criterion, whereby all men may be enabled to decide upon the security of their patients.

Having conferred with many of the most eminent practitioners in the metropolis on this subject, we are inclined to believe that such an important desideratum may be obtained by inoculating the patient a second time, during the progress of the first inoculation. It appears to us, that the justly celebrated Mr. John Pearson was the first, who made such an experiment, which he discontinued, in compliance with the wishes of some eminent vaccinators, who unreasonably suggested, that it might prove inimical to the establishment of the practice; and because, like a true philanthropist, he was unwilling to offer any impediment to the progress of so beneficial a discovery. The method is simply as follows:-Inoculate the patient with fresh vaccine matter, and on the sixth or seventh day re-inoculate him or her with other matter, so that there may be an interval of four days between the performance of the second inoculation and the completion of the first; and if the case be secure, the second inoculation will disappear as soon as the first attains its acmé; while on the other hand, if the first be inefficient, the second will go regularly through the whole progress of the disease. This experiment is well worthy of general adoption.

We come now to the consideration of our second proposition, that the most malign cases of vaccine inoculation are comparatively milder than the most benign cases of variolous.

My experience does not afford me a single instance, where any serious indisposition has been the result of vaccine inoculation, nor are we able to charge our recollection with one case, where any injury was committed upon the arm, the disease having been in my hands uniformly as mild as the most anxious solicitude of the tenderest parent could wish. But our ears are daily saluted with the unpleasant sounds of ulcerated arms running on even to mortification and death, of virulent, and indeed incurable cutaneous eruptions, all of which direful effects are attributed by the antagonists of vaccination, una voce, to the action of the vaccine virus.

Whether these accounts be the offspring of mere imagination or not, they are truly distressing. But such is the mild nature of this disease, that we have no hesitation in ascribing all those dreadful cases of ulcerated arms, and the consequences, either to the most gross and culpable negligence on the part of the inoculator, inattention equally censurable on the part of the nurse, or a very peculiar habit of the patient; and our experience at the Small-pox Hospital, when under the control of its late amiable physician, warrants us in boldly affirming, that if such unaccountable negligence were practised in variolous inoculation, the bad effects would only be ten times more destructive. But who can be surprized either at accidents of this nature, or failures of another, when they consider the hands into which the practice of this inoculation has generally fallen? In hundreds of instances, the patients are inoculated and never seen by the inoculator afterwards; in many other cases, the operators themselves are unequal to the task of ascertaining, whether the progress of the tumour be regular or not; of course whether the patient be rendered secure or not. But circumstances of this complexion, however numerous and well authenticated, will never injure the cause of vaccination in the minds of rational and unprejudiced men.

Dr. Moseley has inquired with evident confidence and exultation, if a patient, named Elizabeth Harris, did not lately die under the confluent small-pox after vaccination. He may indulge now, if he have not already, his thirst for such universal knowledge, by perusing the just and candid statement of this case in the Medical Journal for October, by Dr. Adams.

Although we do not feel disposed to affirm, that cutaneous eruptions never follow vaccine inoculation, still we mean to contend, that even these occurrences, when compared with those following variolous inoculation, are very inconsiderable, and there is another point, which cannot be impressed too forcibly upon the minds both of the faculty and parents; namely, that the cutaneous eruptions, which are sometimes found to tread upon the heels of vaccination, are easy of cure; while on the other hand, those which often succeed variolous inoculation are extremely difficult.

It has been confidently asserted that children have died under the influence of vaccine inoculation; upon this point, however, we confess ourselves extremely sceptical; but, if we were to admit that one in ten or twenty thousand will lose their lives by vaccination, the practice, when fairly and justly

compared with the uniform mortality of inoculated small-pox, can lose no ground by it. But we are not authorised to infer, much less to admit, that one patient out of four or five hundred thousand has fallen a victim to this disease; for when fatality has occurred in subjects during the progress of this inoculation, causes, totally independent of the inoculation, and more than sufficient to occasion death, have been strikingly evident in every instance.

I have neither had opportunity nor inclination to inquire minutely into all the cases related by Dr. Rowley, but strange as it may appear, the very first which arrested my attention proves totally erroneous. I do not feel disposed to tire the patience of my readers by a detailed account of this circumstance; suffice it to say, that I hold in my possession the most incontrovertible proof of its inaccuracy.

The proportionate fatality of variolated inoculation has been announced already; but it may be in point to observe, that we have witnessed three cases of hydrocephalus follow very moderate cases of small-pox inoculation; and that, where no disposition to that horrid complaint was before perceived, two of them died and one recovered under the usual mode of treatment. Dr. Reynolds may also probably recollect a case of a similar nature, which he attended in conjunction with the late Dr. Woodville.

Our third proposition states, that the vaccine virus not only possesses the power of preventing the future occurrence of variola; but also that of mitigating the virulence of the casual disease, as well as another disease, which is extremely destructive to the inhabitants of this island.

Abundant experience warrants our asserting, that if the vaccine matter be employed by the way of inoculation in a patient, at any time between the period of receiving the infection of the small-pox, and the first day of the consequent indisposition, it will be followed by the very beneficial and important consequences of diminishing the virulence of this most fatal, most loathsome disease, but we are firmly persuaded, that it cannot under those circumstances entirely supersede it.

The very destructive disease, which we have alluded to, is scrophula. We have had opportunities of seeing four cases of this disease, which had resist, ed every mode of treatment except the exhibition of the muriate of lime, yield under the influence of this inoculation.

Two cases of cutaneous eruption have been also cured by it under our direction; it is however worthy of remark, that during the influence of some diseases of the skin, perhaps we may with propriety particularize herpes, vaccine inoculation will never observe a regular progress; but being informed that Dr. Jenner is at present employed in the consideration of this subject, I purposely avoid dilating upon it.

A curious case, where the influence of vaccine inoculation was very conspicuous in curing disease, was related to me during the last winter by a very

ingenious young gentleman\*, who was completing his education under the auspices of Mr. Cline and Mr. A. Cooper. This was a most virulent case of hooping-cough, which had resisted the usual mode of treatment, and was expected to terminate fatally in the course of a few days. Finding no relief from medicine, this gentleman recommended the trial of vaccine inoculation, but the parents would not for some time consent, because the child had already been vaccinated, and it was regarded as a wish on his part to make an experiment; but their alarms increasing with the danger of the infant, they permitted him to make the attempt, which was immediately done without effect. It now immediately occurred to him, that he might succeed by first exciting a certain degree of inflammation in the arm, and then engrafting the matter upon it; and his opinion was just, for it now answered the purpose; and as soon as the disease attained its acme, so soon did the dangerous symptoms of the hoopingcough recede, and after a short time, the patient was restored to perfect health.

Vacccine inoculation fourthly possesses incalculable advantages over variolous inoculation, by not being contagious by effluvia. This is so obvious, that any discussion of the point appears altogether unnecessary.

The interest, which I shall always feel for the wel-

ispings of malignity; regardless of the serious and

<sup>\*</sup>Mr. Pearson, Surgeon, Hull.

fare of the small-pox and inoculation hospitals, will not admit me to conclude this dissertation without noticing an article, which lately appeared in some of the newspapers, animadverting in terms of indecent and unjustifiable severity upon the conduct of the governors of these hospitals, and imputing to them a disposition to counteract the philanthropic designs of the Royal Jennerian Institution, by the encouragement of variolous inoculation to the exclusion of vaccine.

So extraordinary an attack on this institution, which is known to comprise in its list of acting members, persons of the highest respectability and moral character, and considerable medical knowledge, demanded an inquiry into the ground on which it was founded, and we have the most heartfelt satisfaction in being enabled to declare, that the whole of the article in question is a wicked fabrication, a gross and calumnious, an illiberal and solely unwarrantable charge, as insulting to the public, as it is distressing to those against whom it is levelled. But let them not be dispirited; the shafts of envy and malice, illiberality and calumny, ultimately recoil with ten-fold violence against the bosoms of their employers, and their well-known humanity will ever shield them against all anonymous stabs, and preserve them in the estimation of all good men.

We are nevertheless grieved to find, that there is a hand in the country so ready to transcribe the lispings of malignity, regardless of the serious and

extensive mischief, which may await its pollutions. The governors of these hospitals, far from opposing the practice of vaccination, have, from its earliest introduction, not only countenanced it, but assiduously endeavoured to promote its prevalence, and to this moment are equally zealous in their efforts to diffuse an universal knowledge of its importance. As a proof of this, their late amiable physician, the loss of whom to these hospitals is irreparable, was, at the time this inoculation was first introduced here, in the annual receipt of one thousand guineas from his firmly established and well merited eminence in the treatment of small-pox, but no sooner was there a prospect of diminishing the sufferings of his fellow-creatures, than he immediately at all risks turned his attention to the proposal, and no man has done more towards supporting, modifying, and establishing vaccine inoculation than he did.

From a humane respect to the prejudices of parents, and a laudable attention to their feelings, the medical establishment of the small-pox and inoculation hospitals have not refused the request of those, whose minds have resisted, or have been incapable of duly appreciating the evidence in favour of vaccination. This concession is, however, never granted without an earnest and forcible appeal to their feelings, with a view to dissuade the persons so applying from their resolution.

For the last ten months, the casual small-pox has raged in this metropolis with almost incredible fury, nor have its ravages yet ceased. At no period

since the introduction of vaccine inoculation, has this direful, most fatal disease been so prevalent. But unfortunately it has not been confined within the limits either of this metropolis, or even the bills of mortality; for, in the course of the last summer, every county in England felt more or less of its venom, and its prevalence in both Scotland and the principality of Wales, considerably exceeded the usual ratio. It has been, and indeed continues to be, more than usually fatal. During the greater part of this time, the wards of the Small-Pox Hospital have been crowded with miserable objects. Where then, I would ask, if this unfortunately too useful place had, according to the suggestion of some, been committed two years ago to the mercy of the salesman's hammer, or if its noble walls, as was the wish of others, had been levelled with the ground by a conflagration of firebrands, would these wretched creatures have found a home? Where, I repeat, would have been met with the good Samaritan to take such distressed, such miserable objects to his house, and pour oil and wine into their wounds? If no where, then the dreadful influence is but too justly drawn, they must one and all have perished in the street. But here Mercy sits smiling with open arms ready to receive them, and gentle Pity resides within, willing to administer to all their wants, and such is the dmirable and excellent domestic management of this place of refuge, that, if these unhappy mortals were surrounded with all the blessings of friends and fortune, they could not be more carefully, more tenderly watched over.

The governors of this most necessary, most humane institution, enjoy the grateful consolation of having dispensed the blessings of health and comfort to thousands, and the melancholy satisfaction of having soothed the pangs and agonies of many a death-bed.

Having exerted our best endeavours to place the question in a fair point of view, and having also established our four propositions on the solid and unperishable foundation of truth derived from the pure source of experiment and rational induction, we bid farewell to the subject in the full confidence of its utility and power, and the hope of its becoming soon more duly appreciated and generally adopted.

THE END.

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