

A letter to a friend on the subject of inoculation : on which the reasons for the practice are considered and enforced, and its consistency with our duty to God, and to society, asserted and defended / By Daniel Cox.

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LETTER to a FRIEND

ON THE

Subject of INOCULATION.

In which the Reasons for the Practice are
considered and enforced, and its Consistency
with our Duty to GOD, and to SOCIETY,
asserted and defended.

By DANIEL COX, M. D.

Member of the Royal College of Physicians, London.



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A

LETTER, &c.

DEAR SIR,

HAD I no other inducement for giving you my sentiments in writing on the subject of Inoculation, than, barely, that you desired it of me, I should certainly esteem that one sufficient: but when to this you added your reason for asking it; that you might be enabled to establish some sensible and valuable friends of your's, in the country, in a firmer persuasion of the propriety of the practice, a point, in which I assured you I was myself perfectly satisfied, the esteem I have for you,

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must

must naturally excite in me so much goodwill towards your friends, that I could not but with pleasure yield to the force of two such prevailing motives.

But though I have ventured on the undertaking, you are not to expect a studied discourse, but must be content with such miscellaneous reflections, as my mind suggests without much deep attention; much like what passed in our conversation the morning you went out of town.

It is, I presume, with this argument, as with many others: TRUTH lies just at the door, but, instead of stooping to take it up, we proudly gaze too high, and stumbling over the threshold, miss what we pretend to be seeking after: thus it has been, that the laboured reasonings of some zealous disputants against Inoculation have so perplexed the controversy, by drawing more into it than fairly belongs to it, that it is not to be wondered at, that there should be found, even among people, neither wanting in understanding,

standing, or good intention, many who entertain scruples about the defensibility of the practice :

I need not take the trouble to transcribe many of the extravagant things, which some of these zealots have advanced ; a specimen, or two, will enough inform you of their turn for argument, and convince you, I doubt not, at the same time, that neither integrity, or knowledge, had any over-strong connexions with the warmth they shewed on the occasion.

I have not the sermons by me, for it was from pulpits these strange things were uttered ; but I give them as quoted by Dr. Kirkpatrick in the preface to his Treatise on Inoculation, published in 1754. ‘ The earliest theological combatant, says he, certainly set out with more zeal than knowledge, when without debating about the antiquity of the Small-pox, he came to the matter at once, and roundly affirmed the devil inoculated Job.’ “ He supposes his disease that confluence of inflammatory

“ pustules, which, he observes, is now in-
 “ cident to most men; that it might be con-
 “ veyed to him by some such way as that of
 “ Inoculation, and concludes, that he does
 “ not see what can be advanced to invalidate
 “ the supposition.”—This sermon, I think,
 was preached about thirty years ago.

From another sermon of more modern date, viz, 1753, the Doctor quotes the following extraordinary passage: “ it will be
 “ hard to produce, out of the huge system
 “ of hurtful inventions, ever an instance big
 “ with more INFIDELITY and ATHEISM,
 “ than this of Inoculation.”

The bishop of Worcester within these very few years past preached a sermon, before the Governors of the Small-pox Hospital, great part of which is expressly a defence of Inoculation: and even in the beginning of the disputes, when the practice was but in its infancy, one bishop at least, and several others of the clergy, had their children inoculated: to have just mentioned to you these particulars seems reply sufficient to this
 wrong.

wrong-headed priest's charge of Atheism and Infidelity.

There have been, likewise, objections raised by medical writers; all, or most, of which have been supported by hypothetical reasonings, not by an appeal to fair facts and experiments, which alone ought to decide in the case: I pass these over at present, but may, probably, be led to touch upon them, as I go on.

That I may observe some order in writing, I shall first give you a short account of the introduction of the practice of Inoculation.—Next some estimate of the superior advantage of success the artificial claims over the natural way of infection.—Then, attempt to shew to what natural causes this success is owing.—And, lastly, assert, and defend the consistency of the practice with our duty, to God, to ourselves, our families, and to the community in general.

It remains, I believe, unsettled, at what æra of time the practice of Inoculation had
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its origin, and, from what occasion. It might be the result of reflection and judgment, but was, more probably, an accidental discovery: at least, if that shews it to have been so, it was first used, as far as is known, among the UN-LETTERED: and, it might be well it was so, nor is it the first great discovery that has come out thus: for, had some sort of learned men, I would mean such who are possessed only of mere learning, got hold of the invention, before experience had given sufficient weight to it, they would, perhaps, have theorized it quite away; they have attempted it since, and the world might have been deprived of the benefit of the practice: for the humour of philosophizing deeply on matters of easy comprehension, which some affect, is very apt to lead the mind into a MAZE, and take it off from the perception of simple truths: while men of plainer parts, having no such perversities to misguide their understandings, usually see the force of facts, and submit to the dictates of common-sense; of themselves, if honestly followed, generally sufficient, in the

the affairs of life, to guide us to what is right and useful.

But from whatever occasion the practice took birth, it seems clear that it has been long in use among the Asiatics, the Circassians especially, (and, it is supposed, among other nations bordering upon the Caspian sea) whose principal view in performing the operation, on their daughters at least, is said to have been the preservation of their beauty, for which, it seems, they are remarkable, that they might gain greater profits from the sale of them, among the Turks and Persians, for their Seraglios. But whatever might be the motive, if this security to their features was the event, it is a conclusion natural enough to make, that their health could not be impaired, much less their lives put in danger from the operation; since it is from the paucity of the pustules, and their rarely leaving any unseemly scars, or even strong pits, that beauty is preserved: and, it is from the same paucity of the eruptions, that life is so generally secure, both under the artificial and natural Small-pox.

The

The practice, or something analogous to it, has been understood to have been long used in China, and is said to have been so, for many years back, at least one hundred and fifty, no farther from us than Wales, if their method was strictly Inoculation; for the communication of the Small-pox by art has been somewhat differently practised in different places. I need not stop to explain these things to you, as it can be of no use, nor, I suppose, of any amusement to one out of the profession of medicine; my intention being only to enforce the prudential reasons for having the operation performed, not to describe the manner of doing it, which, with the necessary apparatus, has been sufficiently explained by other hands.

Towards the latter end of last century it was, it seems, introduced into Turkey, or rather revived: a Thessalian woman practised it many years at Constantinople, even to the inoculating, I think, about ten thousand: these were not Turks, whose doctrine

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concerning fate restrains them, but Europeans, Greeks, and Armenians.

Near forty years ago the practice was introduced into England by Lady Wortley Mountague, whose son was inoculated at Constantinople; and afterwards, on her return to London, her daughter was here inoculated. And, some experiments having been made on a few condemned malefactors with success, the present King had his children inoculated, and the example was followed by other great personages, and by several private families: and, down to the present time, the practice has spread considerably in all parts of the kingdom, in our American colonies, and as late accounts have informed us, it begins to gain credit in France, Holland, and Geneva.

It is my purpose to be concise on every head, and to give you rather hints than tedious accounts: what therefore has been said on this part of the subject, you will, I believe, think sufficient.

Next, as to the calculation concerning its success.—This is, I suppose, a matter not to be settled with any very precise accuracy: nor is it, for the defence of the practice, absolutely necessary: it is enough that there is an acknowledged great superiority of success, which the artificial claims over the natural way of infection. Among about two thousand inoculated patients, for some years past, under the care of two or three eminent surgeons of this city, there have not been above two or three miscarriages. A merchant of St. Christophers, when the Small-pox raged in a neighbouring island, with his own hands inoculated three hundred of his negroes, from the ages of five to thirty-five, without losing one, as Dr. Mead has informed us in a treatise of his on the Small-pox; others may not have succeeded so well, nor indeed was the success so apparent on the first introduction of the practice among us, as it is at this day.—In the Small-pox Hospital they have lost but three out of 724. Two died out of the first 131, and but one out of the last 593, as their printed
account

account informs us, which takes in six or seven years past; and, in the Foundling Hospital, there have been inoculated, as I have been informed by Mr. Tomkyns, one of the surgeons of that hospital, near 300 children, of whom one only has died.—But putting together every calculation from the several accounts that have been collected, the most the favourers of Inoculation will admit the miscarriages to be estimated at, is one in one hundred: indeed, for my own part, taking in all the accounts I have seen, I am firmly of opinion, that by this computation they scarcely do Inoculation justice.—However, let it be admitted at this calculation, for it is support enough to the practice, since it is beyond dispute that one, in five, six, or seven, die under the natural disease.

Now, to what causes, as well as we can trace them, would you not naturally ask, should this superiority of success be owing? And, this I have engaged to endeavour to shew.—Now, there seems to be a concurrence of several causes, which I will, as briefly as I can, enumerate.

The natural Small-pox is received into every habit of body, and under every accidental change of circumstance attendant on that habit. A good habit for the reception to-day may, by to-morrow, through some irregularity, or unavoidable cause, be changed into a bad one; and a bad habit, by the same means, rendered worse; for, amidst the various intercourse of life, errors may be easily committed, and injuries to the health suffered.—Children, especially boys, from five or six to twelve or fourteen years of age, are perpetually heating themselves, through their active propensities to sports, suited to their years.—The young and spirited, among our gentry, when springing into the vigour of life, usually engage liberally in exercise, as dancing, fencing, hunting, &c. Some indulge in high living, and, perhaps, run into other intemperances in the pursuit of their pleasures: and all, even of both sexes, probably, at one time or other, crowd amidst the heat of drawing-rooms, the theatres, or other public assemblies: from these places issuing out into the cold air, from whose
hurtful

hurtful influence at such a time, with all the cautions prudence can suggest, they cannot always be secure. It wants no illustration, that, under all these circumstances, and many more that may be imagined, if the Small-pox should seize them, their case would not be free from danger.—Nay, for aught any one can know, they may, by these means, be raising fuel, for the heightning an infection, imbibed already; for the Small-pox, as eruptions, the consequence of an infection, is not, it may be fairly presumed, the work of a day; but the infectious particles have been, probably, exerting their influence several days, before the least alarming symptom of the distemper shews itself.

Among the descending classes of mankind you will find the same sort of pursuits engaged in, varied only in the mode, and consequently the same kind of effects may be expected to arise.

Now the practice of Inoculation, when conducted by a proper guide, promises as much as seems within the power of human art,

art, to anticipate these hazards.—It guards the intended patient from extreme exercise, from irregularities of diet, and of every other kind.—If the habit of body is a good one, it professes to keep it so;—if a bad one, it employs proper means to correct it, before the insertion of the infection.—It chooses the most temperate season of the year for the operation: or, if necessity requires it to be performed, in order to obviate the danger, which a present popularity of the natural distemper may threaten, it regulates, as much as may be, the forbidding temperature of the season.—The summer's heat is moderated by shade, perspiration of the patient's chamber, and thin coverings—Fruits, and subacid drinks, assist farther in cooling the blood.—The winter's cold is resisted by warm apparel, good fires, and additional bed-clothes,—and, if the blood wants to be invigorated, warm medicines, or a more generous diet, will accomplish this end.

The manner, in which the particles of contagion are infused, may contribute likewise towards the mildness of the distemper, for
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they are inserted into the skin, remote from, and with guards upon, the principal organs of life, the lungs and brain; and thus conveyed into the blood may become softened or meliorated, as to their degree of virulence in themselves,—at least it seems so from the known effect of a mild degree of the distemper being produced, though matter taken from a bad sort of the natural Small-pox has been used in Inoculation: unless this event should be wholly placed to the account of the preparation.—The particles of infection are inserted too in a sort of limited quantity, whereas, in the natural way of infection, the quantity of the variolous effluvia can scarcely be circumscribed in imagination.—Not that I would lay too much stress upon these remarks, for experience fairly shews, as was just now hinted, that it is the good temperament of the body, whether, according to nature, or procured by art, joined to the management before and after the reception of the infection, that principally influences the event.

Now I have mentioned the management, or treatment, of the distemper, after it is received,

ceived, give me leave to pursue a hint it suggests to me, of no small consideration, and, if I mistake not, much to the advantage of Inoculation.

The natural Small-pox, we have observed, seizes promiscuously persons of all sorts of temperaments, in all seasons too, and under every difference in the sensible qualities of the air.—It invades too in all places,—in town, or in country, and in different parts of each.—You put yourself under the care of, perhaps, the practitioner who dwells nearest to you, or who happens to be first recommended.—You may know little of the abilities of this person, or if you should have faith in him, from your supposed knowledge of him, it may be faith without any real distinction of his medical capacity, which it will be difficult for you to discriminate: should it happen now that this practitioner, let his denomination in physic be what it will, should entertain some of the old notions concerning malignity (a term which, in the opinion of our sagacious countryman Dr. Sydenham, had caused more destruction to mankind

mankind than the invention of gunpowder) and, with these notions, the necessity of opposing it by high cordials, and a hot regimen, in order to expel the malignant particles from the blood, and drive out the pock, as the phrase is, you may have a disease, of itself, for the most part, inflammatory enough, soon heightened into aduſtion: or, should he, on the other hand, without a judicious restriction on the practice, have assumed a regard to the cooler regimen, he may err, on this side, by evacuations, acids, nitre, and cool air, till the eruptions are totally suppressed, and the patient is chilled into death: and, if we farther place to the account the influence, which some of your knowing nurses have in families, who, in the present case at least, are seldom acquainted with much more, than how to suffocate the patient within close curtains, and heaped-up bed-clothes, you will not be at a loss, if to this you add too the danger from the distemper, in some cases, even under the most skilful treatment, to conceive, what infinite hazards must be risked from such frequent causes as these are.

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But to few, if any of these hazards are you liable when you inoculate. You have time to deliberate, where you will reside—to cast about to prepare yourself—and to place the conduct of that preparation, and of the subsequent management, in the hands of persons perfectly versed in the practice, with, perhaps, scarcely one of the Inoculators governed by any precarious hypothesis, but all established in right principles drawn from rational experience, the only solid foundation of the art of medicine: I need not point out who these are in town: Indeed the practice is now so generally espoused, and so well understood, that there can be no difficulty here in fixing the choice; and so much, likewise, has it extended itself to all parts of the kingdom, that there will be found few country towns of any note, even where no physicians reside, but what furnish, as well as London, practitioners of abilities, if they have given any tolerable application to it, to conduct a process, concerning which, no learned chimeras, to mislead the judgment, have

have yet got foundation, but all is the result of plain observation, and common sense.

I have thought it necessary to say thus much to you on this head, in order to take off any uneasy impressions, which your friends might have, should Inoculation be their choice, and should it at any time be inconvenient to them to have the operation performed in town, where the fullest assistance is always to be had, and which, people of fortune, as they need not, so they seldom choose to be without.—And that I have not advanced these things at random, with respect to one of the denominations in the profession, which I have above alluded to, that essay, which I gave you to peruse, *on the preparation and management necessary to Inoculation*, written by an apothecary, will enough evince ;—and there will not, I suppose, arise any dispute about the abilities of the other two branches of the profession.

Before I dismiss this head, I shall take leave to make one observation, which naturally arises from what has preceded, and

which, indeed, it would not be humane to omit; that, if the success of Inoculation does so much depend upon a good temperament of body, and the cautions used to guard against every occasional injury to the health, it is obvious, of how great importance it is, in times, especially, when the Small-pox is epidemic, to persons who have not yet had them, and are not to be prevailed with to inoculate, to preserve such a state of body, as is observed to be least productive of a high degree of the distemper. They should avoid all those causes which have been enumerated, as rendering the natural distemper dangerous, such as vehement exercise, crowded assemblies, high living, and intemperance of every kind. The diet should be of a light, cooling, and subacid kind, and the body, for some constancy, kept in a soluble state, especially if the constitution is of the more generous kind, and subject to inflammatory disorders. To persons indeed of a different habit, it may be improper, as it would in the preparation for Inoculation, that they should be kept too low, or that evacuations should be used too freely: this might hazard the success in the artificial, and it would be
injudicious

injudicious therefore, in the seconstitutions, to practice this method of management, in apprehension of the natural Small-pox.—But these things can be but mentioned in general; for as to the particular regimen necessary in different habits, it is certainly as requisite to consult some judicious practitioner concerning it in this case, as it is in the preparation for Inoculation.

I am now come to the most important part of my subject, the consideration whether the practice of Inoculation is consistent with our Duty to God,—with that, likewise, which we owe to ourselves, to our families, and to the society in general.

I should be sorry to weaken in any degree that just reverence and submission which we owe to the will of the Supreme Being: but, I cannot help thinking, that his name is much too often introduced into these kind of arguments; and sometimes, with a freedom not a little derogatory to his attributes; as though the laws, he prescribes to man, flowed from arbitrary will, and were mere
positive

positive laws without any rational motives or tendencies. Now, this is supposing the laws of God to be inferior to human laws, in which there is always an expression, or implication, of some reason for making them, and, of some good intention towards those who are expected to obey them; otherwise, they would not be the laws of wisdom and justice, but of caprice and tyranny, which can, in no degree, be the character of the divine laws.

If this then be the case, I would ask, how shall a reasonable Being, allotted to exist, through a certain series of years, in a social connexion with multitudes of the same species, and amidst a number of inconveniencies and dangers, the apparent condition of that existence, judge of the duties incumbent upon his station, but by exercising those rational powers about them, which his beneficent creator has blessed him with? Let us try then, whether we can support, by REASON, the argument we are defending; which, if we can, we may rest satisfied, that, by practising Inoculation, we shall commit no offence
against

against God, nor any repugnance to TRUE RELIGION; which, as the religion revealed by God, must be compatible with, at least not contrary to, THAT REASON, which HE has given us, whereby to judge of all religions.

Leaving therefore religion, strictly as such, out of the question, not flightingly, but out of respect to it, as not necessary to be introduced, the argument will come to be considered in a moral and political light, and may be reduced to this plain question.—Whether, with regard to our more limited, or extended, relation to society; that is to say, whether, under family, or national connexions, Inoculation ought to be encouraged, and put in practice.

Now the reasons, which prevail with regard to individuals, will have the same force towards the aggregate, and, *vice versâ*. What one man therefore may act in his private capacity, a dozen may, as united in a family, and so, in gradation, may the whole community, while the GOOD of the WHOLE is intended

tended and consulted; even though lesser evils might, now and then, fall out to some particulars.

Various cases might be put to illustrate the argument: I have sometimes turned it over in my mind after this manner:

I have supposed a prince, despotic as the Grand Signor, if you will, or the Great Mogul: if he consulted the security and happiness of his people; and, power ought never to be exercised, but for such purposes; nor indeed, without offence to common sense, can it be delegated, but with the intention that it should be thus employed, would he not, if he had been well informed of the affair, reason thus on the case I am supposing?

The government of, and power over, this people, is totally in my hands, and I ought to exert them for their good.—Their number amounts, at this time, to seven millions: Is not this about the computation of the people of England?—Till lately the Small-pox was a stranger to our country.—It has now,
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by some means or other, reached us, and may spread quite through the kingdom. According to the calculations I find made in other countries, should all my people in succession be seized with the distemper, there would be lost one million of them.—There is a method, I am informed, discovered of conveying the distemper by inoculation, in so mild a manner, for the most part, by means of some previous regulations observed towards the patient, that not above one in an hundred, perhaps not so many, die of the distemper thus communicated: on this estimate, if all my people were to be inoculated, I should lose of them only seventy thousand, which is nine hundred and thirty thousand less than would perish, were they to receive the distemper in the ordinary way of infection. Can I hesitate then about using my authority, that they shall submit to the operation as speedily as their preparation will allow? Surely not: and I will set the example in myself, and my own family.—For, I shall not only hereby preserve so great a majority from almost certain death, but I shall add to the happiness of their lives, an

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exemption from all terror of the distemper hereafter.—Would you not now esteem such a prince the true father of his people, and fit to be trusted with SOVEREIGN power? A POWER, which in all governments, of whatever form, must be lodged somewhere, and may be fairly exercised with the fullest scope, where the natural rights of the people are not unjustly dealt by, which, in the case we are stating, it were easy to shew, from several similar instances, that they are not.

From our despotic prince, and the interest of a whole kingdom, let us now step into private life, and observe how our reasoning will suit the circumstances of a more contracted family.

A father has, I think, been called a king in his own house.—I would not wish the saying to be extended to that enthusiastic length, which some flatterers have stretched the doctrine, when they made Adam, by divine appointment, absolute in his own family, that they might from hence compliment their favourite assuming princes with a

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jure divino power of acting, as they pleased, without controul: though, in a more modest sense, a parent may be allowed to have a governing power, as he has the conduct of, perhaps, several helpless children, whom he has been the means of bringing into being, and whose good he is compelled by every rule of justice to consult, and which, without some degree of such power, he cannot effectually promote.

Let us now state a case with respect to this superior of an household.—If he has seven children, and they should all be seized with the Small-pox in the natural way of infection, the chance against him is the loss of one, and in his favour the recovery of six.—Suppose him to have an hundred children; for while we are putting cases, why not suppose it? And, should they all have the Small-pox in the natural way, his loss, on the calculation, would be about fifteen: but, if he inoculated them, the hazard will be no more than of one, perhaps not that.—Can it be said then, that this parent has no right to aim at this security to his children, but must permit

them to risque every danger they are otherwise exposed to, besides suffering on his own, and on their side, if of age to feel it, the continual uneasiness which is wont to accompany them, till the disease is past over, when providence has put so fair a remedy in his hands to obviate so great a part of the evil?

But it will, perhaps, be said, if this parent had let his children alone, they might never have the distemper at all: To this it is replied, the instances are so few, of those, who pass through life without having the Small-pox, that the precedents can scarcely be allowed to suffice for the objection: and, so it is generally understood, as appears from this slight instance, the caution which almost every family uses, in refusing to hire a servant, who has not had the distemper.

Should it be objected:—but may not the patient have the distemper afterwards in the natural way, notwithstanding they have gone through it by Inoculation? I answer, possibly, yes: and, so they may after they have had it in the natural way, for any thing that
reason,

reason, abstractedly, can urge to the contrary; but not more in one case than the other: for, it is by observation, not by reason, that we are authorized to say, that the Small-pox is not produceable a second time; and, observation has not shewn it deserves to be more apprehended after the artificial than the natural Small-pox, that is to say, to be apprehended scarcely at all: for would one such instance in three or four thousand, was that the calculation, which I presume, it by no means is, nor, perhaps, can any be made, reasonably excite any terror of a second subjection to the distemper.

Or, will it be objected, May not some other distemper be communicated by Inoculation besides the Small-pox? To this question it might suffice simply to reply in the negative, and call upon the objectors to shew the affirmative: for, it is an objection scarcely presumed to be built on any known and well attested facts: and we are not enquiring what may be, but what is: so that, in dealing with the objectors on
this

this head, who ought to bring fair proofs if they have any, we might argue only theoretically as they do, and the reasoning, even then, I am well convinced, would preponderate much on our side of the question: but we can go farther, though it is indeed a negative proof, but yet not without weight, and assert on the authority of the principal Inoculators, that no such facts have come to their knowledge in many hundred cases they have attended, though they have been acquainted with very many of their patients for years after. And there is a case, perfectly in point, in which through an accidental ignorance of a secret disease a person laboured under, the knowledge of which came out afterwards, matter for Inoculation was taken from him: the inoculated patient, a young lady, went well through the distemper, and to the end of many years which have since intervened, not the lightest symptom of the collateral disease has appeared.—The case is recorded, among some other corroborating arguments in answer to this very objection in Dr. Kirkpatrick's dissertation on Inoculation published two years ago, a work of great merit,

merit, and capable of affording much medical instruction to such practitioners in physic, who will be at the pains of studying closely the doctrines therein contained.— And, within these few days, while this letter was transcribing fair to be sent to you, a small, but sensible pamphlet, called, *the grand objections to Inoculation considered*, fell into my hands, in which five cases are mentioned, wherein it was fully known afterwards, that the Sick of the Small-pox, from whom matter was taken for Inoculation, were actually affected with scrophulous, scorbutic, and other chronical diseases, and no ill effect from them has happened to the inoculated, though it is from one, to five or six years, since the Small-pox was communicated.

But to return to our father of a family. I have asked whether he has not a right in him to provide for the security of his children in this very important point? And to illustrate the question farther, I would beg that it might be considered, what he con-
fents

sents to, in the disposal of his children, in some other cases.

When his son arrives at the suitable age, he buys him a commission in the army, not for amusement, and parade, I presume; but, that he may really serve his country in war, when he is called upon. Imagine him engaged, with twenty thousand of his colleagues, against the same number of enemies; and should the dispute be warm, what think you would be his proportion of the hazard of being slain?—not to mention the risques to his life, which encampments or cantonings, in marshy, or other unhealthy situations, expose him to.—In the navy the dangers are, perhaps, not so great (some esteem them greater) though should he get into a general engagement, or even with single ships, they are, by no means, contemptible; besides what may be placed to the account of storms, sea diseases, or other accidents.—There wants not precision in calculations on these heads.—The hints, I offer, being only to illustrate the main point of a parent's being justified in advising,

advising, consenting, or decreeing, for his son in matters of this nature ; and the application will be the same, *mutatis mutandis*, in all cases.—So will it be with respect to persons farther advanced in life, and out of their parent's tuition : for what a parent may determine for his child, it will, I believe, not be disputed, that every man may for himself.

I will suppose you, by this time, satisfied with the propriety of the proceeding in a parent towards his child:—in every private person towards himself:—and, that it is also consistent with sound NATIONAL policy, or CIVIL prudence, to indulge, nay promote, perhaps command, the practice of Inoculation.—Since, if all now living, who have not had the Small-pox, were to be inoculated, and at a certain age, five or six years of age for instance, every one else in succession, the natural disease would be attended with small destruction, as subjects for its devastation would be wanting, except among those of the under age, who would be less liable too, unless perhaps during the time of dentition, to danger, both from
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their manner of diet, and generally milder temperament of body, than adults frequently are.

If the preceding arguments, and the conclusions drawn from them, are allowed to be just, we may certainly, I think, infer farther, that no man need entertain any compunction of mind about Inoculation on a religious account, since it would be absurd, nay, in my opinion, profane, to suppose the ALL-WISE BEING offended at his creatures for consenting, under all the persuasions of reason, and with every honest intention, to a practice, which appears so productive of good to mankind: and under which we are capable of discovering as much dependance upon providence, and resignation to the divine will, as any one possibly can, in waiting for the, so much more to be dreaded, event of the distemper received in the natural way.

But perhaps I express myself too strongly: I do not mean to censure those who differ from us in opinion on this practice, if that difference is really the result of sober reflection,

reflection, and conviction of mind, and not of a spirit of cavil and contradiction. I would have every one act according to the dictates of his own conscience, and think nothing reproachable, but the want of a calm and deliberate examination of the subject, taking facts and experience, not hypothesis, for our guide.

The Bishop of Worcester has expressed himself, on some of these points, with great force, and true christian benevolence, in his preface to the seventh edition of his sermon beforementioned. — The quotation, I am sure, will give you satisfaction.

‘ I beg leave, saith he, to observe that,
 ‘ in all the important actions of human life,
 ‘ scarce any maxim can tend more to the
 ‘ satisfaction and quiet of the mind than, un-
 ‘ der a due dependance upon divine provi-
 ‘ dence, to acquiesce in the consequences of
 ‘ any resolution taken with mature and impar-
 ‘ tial deliberation. This sentiment is com-
 ‘ passionately offered, to prevent that torment-
 ‘ ing uneasiness and self-condemnation, which

‘ one has seen, with so much pity and con-
 ‘ cern, disturbing the minds of parents un-
 ‘ der any unfortunate event, when they
 ‘ really acted for the best. The injunction
 ‘ given by the great apostle of the Gen-
 ‘ tiles, is truly benevolent, as well as reli-
 ‘ gious: “ *let every man be fully persuaded*
 ‘ “ *in his own mind.*” ‘ And, when this is
 ‘ the case, acting in pursuance of such con-
 ‘ viction, should create no uneasiness. Events
 ‘ are in the hands of providence. Mankind
 ‘ can only do what, upon full consideration,
 ‘ appears wisest and best at the time of act-
 ‘ ing; and should only reproach themselves
 ‘ when they do or forbear any thing con-
 ‘ trary to prudence, and their sedate judg-
 ‘ ment.’

Many other excellent sentiments on differ-
 rent parts of the subject, might be quoted,
 both from the preface and the sermon;—
 from the latter I shall take leave to produce
 the following, which much deserves the at-
 tention of those who object to Inoculation, yet
 make no scruple of suffering their children
 to remain among, or even professedly carry-
 ing

ing them, sometimes too I doubt, unprepared, to other children sick of the Small-pox.

‘ It is needless, says the Bishop, to enter
 ‘ into a disquisition, which is the properest
 ‘ method of designedly raising this disorder
 ‘ in the human frame;—by carrying the
 ‘ person that is to receive it, to the contagi-
 ‘ ous steams or effluvia,—or bringing to him
 ‘ the infected matter.—Religious difficulties,
 ‘ if any still remain concerning a practice,
 ‘ that has preserved so many lives, and pre-
 ‘ vented the heaviest grief in so many fami-
 ‘ lies, are exactly the same in either method
 ‘ of voluntary communication; for ’tis no
 ‘ more invading the prerogative of heaven,
 ‘ to occasion one easy and voluntary convey-
 ‘ ance of the infection than another,
 ‘ &c. &c.’

And as to the medical reasons on this head; that the artificial is to be preferred to the natural way of infection, seems strongly concludible from this one circumstance, that the lungs and brain are as much as possible secured

secured from the reception of the contagious steams when we inoculate, but in the accidental way of communication, they are the principal channels, through which the infectious effluvia are immediately introduced.

But it is high time, Sir, to release you from the attendance this long epistle has imposed upon you: it has really from day to day so swelled upon my hands, that it seems to be grown into a volume almost. But I was willing, if in my power, to give you compleat satisfaction, and think I have not omitted any thing materially necessary to be considered: you will therefore, I make no doubt, for the sake of my good intention, forgive the long penance I have enjoined you. To say the truth, the subject, which I at first hesitated somewhat about engaging in, grew gradually entertaining to me, and led me on with more eagerness than I expected: and, when the *impetus*, you know, is upon one, it is not always easy to restrain it, though one has sometimes reason enough to wish that its urgings were less prevailing.—

Left

Left therefore I should get again into the strain of writing, I shall cut my discourse short at once, and conclude with assuring you that, I am,

London, Nov. 5, 1756. Dear Sir,

Your sincere, and affectionate,

Humble servant,

D. C.

P O S T -

P O S T S C R I P T.

AFTER expressing my consciousness of having already written too long a letter, and apologizing for it, you will smile, I am sure, at my spinning it out to a still greater length under the guise of a postscript. But since finishing the foregoing pages, I have been reading over, with some attention, and no small pleasure, a pamphlet on this subject, published last year.—From the satisfaction it gave me, I was induced to think a few extracts would be well received by you; and as they will serve besides to give weight to some doctrines I have advanced, I shall have the less need to excuse myself, for giving you this additional trouble.

This treatise is called, *a discourse on Inoculation*, read before the Royal Academy of Sciences at Paris the 24th of April, 1754, by Mons. la Condamine.

This

This gentleman was one of the three members of that academy, who made that laborious expedition, some few years since, to the equator, to measure the first degrees of the meridian, by that means to ascertain the real figure of the earth; as is mentioned by Dr. Maty, in the preface to his translation of this discourse from the French.

In this preface of Dr. Maty's, we find this sensible observation.—‘ The very different reception Inoculation met with, among
 ‘ some un-enlightned Asiatics and Americans, and among the civilized inhabitants
 ‘ of one of the most considerable nations in Europe, may teach us not to think reason
 ‘ confined to any spot of ground. It has
 ‘ been many times observed, and cannot be
 ‘ too often repeated, that un-assisted nature
 ‘ is a much surer guide to truth, than the
 ‘ greatest learning attended with prejudice
 ‘ and passion.’

Mr. la Condamine, speaking of the children of our royal family being inoculated,

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makes

makes a remark somewhat satyrical upon our nation, though, perhaps, too true.—

‘ This brought, says he, the method into
 ‘ vogue and repute: however, this example,
 ‘ which, any where else, would at once have
 ‘ settled and spread a practice so conducive
 ‘ to the good of mankind, rather obstructed
 ‘ its progress in a divided country, where
 ‘ reason, though supported by experience, is
 ‘ no sooner adopted by one party, but it is
 ‘ thwarted by the other.’

However, he makes us some amends by hinting that his own countrymen are not much freer from this spirit of opposition. Speaking of Inoculation, as flourishing in Turkey, and countenanced and improved in England, but opposed in France, he adds,
 ‘ but with some people any remedy coming
 ‘ from Turkey, and well received in a Pro-
 ‘ testant country, does not so much as de-
 ‘ serve an examination. Be that as it will, the
 ‘ too common prejudice against whatever
 ‘ is singular and new, got the better of rea-
 ‘ son.’—I fancy Frenchmen would tell their
 minds pretty freely, both about political and
 religious

religious matters, if they were not afraid of excommunications, and lettres de Cachet.

The opponents of Inoculation in France seem to have been possessed with as wild imaginations as some of our countrymen: he mentions one of them, and a physician too, after this manner:—‘ We are not to wonder that the Inoculation of a distemper in an human body should appear criminal to him, who seems to think the practice of it on trees unwarrantable. His arguments (*viz.* against inoculating the Small-pox) are these.’ “ Its antiquity is not sufficiently known.—The operation rests upon false facts.—It is unjust, void of art, destitute of Rules.—It doth not carry off the variolous matter.—It has a double stamp of reprobation.—It runs counter to the creator’s views.—It doth not prevent the natural Small-pox.—It is contrary to the laws.—It bears no likeness to phyfic;—and, favours strongly of magic.” ‘ This, says he, is a specimen of the book, and of the reasoning of our

‘ most learned and celebrated Anti-Inocu-
 ‘ lator.’

He tells us of the artifice, ‘ of the Greek
 ‘ inoculating woman, in ingratiating herself
 ‘ with the clergy, who supplied her with a
 ‘ prodigious number of subjects to inocu-
 ‘ late,’ and this she did ‘ by accompanying
 ‘ the operation with many superstitious ce-
 ‘ remonies, and with the oblation of wax
 ‘ tapers.’—A sure method of gaining the
 sanction of bigotted and avaritious priests.

In answer to the question, whether Ino-
 culation prevents the natural infection, he
 quotes several proofs of the affirmative from
 books published in England. ‘ Inoculated
 ‘ children, says he, have been frequently
 ‘ suffered to keep company with others who
 ‘ have had the natural distemper without
 ‘ catching it again.—A woman, one of the
 ‘ six criminals in Newgate, on whom the
 ‘ experiment of Inoculation was first made,
 ‘ after her recovery nursed more than twenty
 ‘ persons under the Small-pox, and yet suf-
 ‘ fered

' fered nothing from the infection;—and
 ' feveral persons formerly inoculated, had
 ' been again inoculated without producing
 ' the diftemper.—A malefactor, who had
 ' had the Small-pox in the natural way, was
 ' inoculated, and a greater quantity than
 ' ufual of the variolous matter was made ufe
 ' of, but without effect.'—Dr. Maty, whom
 I mentioned before, as having tranflated this
 difcourfe of Monf. la Condamine's, informs
 us in a note on this head, ' that he lately
 ' tried this experiment on himfelf, and the
 ' event was the fame, *viz.* the infection,
 ' though conveyed by the means of two in-
 ' cifions, had no effect upon his blood, as
 ' it had been fufficiently defœcated fifteen
 ' years before by the natural Small-pox;' and the fame fort of trial was made on the
 honourable Mr. John Yorke,—his cafe was
 peculiar. ' He was inoculated by Mr. Sear-
 ' geant Hawkins, at the age of twenty.—
 ' The operation brought on at the ufual
 ' time, the inflammation, and fuppuration
 ' of the wound, the fwelling of the arm,
 ' the ficknefs, fever, and all the fymptoms
 ' of the Small-pox, but, *without any erup-*
 ' *tion :*

‘ *tion* : the want of this engaged Mr. Yorke,
 ‘ though he was well assured the operation
 ‘ had its full effect, to have it repeated. But
 ‘ this repetition was intirely ineffectual; the
 ‘ wound healing up immediately as a mere
 ‘ scratch.’

I thought it, Sir, much worth the trouble
 of transcribing these passages, as they must
 be of singular importance towards quieting
 the minds of those, who may retain any
 doubts about their security after Inoculation
 against the danger of a second infection in
 the natural way.

His reply to another objection, ‘ *That the*
 ‘ *giving a distemper, or preventing it in one,*
 ‘ *who in the order of providence was destined*
 ‘ *to have it, is an usurpation of God's right,*
 is, in my opinion, a very just one.—‘ This,
 ‘ says he, is the objection of Fatalists, and
 ‘ rigid Predestinarians. Does a reliance
 ‘ upon providence imply, that we are not
 ‘ to prevent those evils which we foresee,
 ‘ and which we have it in our power to
 ‘ guard against by prudent precautions.
 ‘ They,

‘ They, who maintain this principle, must
 ‘ if they act consistently, prohibit preserva-
 ‘ tives in general, and all remedies, which
 ‘ tend to lessen the malignancy of any di-
 ‘ stemper. They must follow the example
 ‘ of the Turks, who on pretence of casting
 ‘ themselves upon providence, perish by
 ‘ thousands of the plague, &c. &c.’ But
 that the Turks are not all such rigid Fata-
 lists, we may learn from the ingenious Dr.
 Ruffel’s Natural History of Aleppo (pub-
 lished this year) in which city he resided
 several years.—‘ Though, says he, the Turks
 ‘ cannot, on account of their religion, do it
 ‘ avowedly, (it being lawful for them to
 ‘ abstain from going into an infected city,
 ‘ but not to fly from one, infected while
 ‘ they are in it) yet such of them as have
 ‘ been any ways conversant with the Eu-
 ‘ ropeans, and are not mere bigots, either
 ‘ keep at home on pretence of being indis-
 ‘ posed, or retire to some garden for change
 ‘ of air, if their affairs will not admit of
 ‘ their going abroad to some distant place
 ‘ where they imagine the disease does not
 ‘ reach. A journey to *Mecca*, on pretence
 ‘ of devotion, is their most common expe-
 ‘ dient.’

‘ dient.’ You see, Sir, how readily people would obey the dictates of right reason, were they not restrained by their superstitions and their fears.

I have intimated in one part of my letter an opinion, that Inoculation might be enforced by a legislative power, without injustice to the natural rights of the people. I have too much regard to the natural rights of mankind to be very sanguine on this head: but, I think, Mr. la Condamine’s answer to the objection, ‘ *that it is not lawful to do ever so small an evil to produce the greatest good,*’ gives much strength to that opinion. ‘ This argument, says he, is founded on a mistake. Suppose this principle is strictly and generally true with regard to moral evil, it will by no means hold good when applied to physical evil. It is certainly lawful to pull down a house to save a whole town from fire. This is a physical evil, which can hardly take place without some degree of moral evil. A whole province is laid under water to prevent the transient devastations of an enemy. Entrance is refused into an harbour to a sinking vessel when suspected

‘ suspected of infection. In a time of
 ‘ plague lines are drawn, and, though hu-
 ‘ manity shudders at the thought, orders
 ‘ are given, without scruple, to fire indiffe-
 ‘ rently on all those who offer to pass them.
 ‘ Is therefore the small physical, or if you
 ‘ will, moral evil of Inoculation, to be com-
 ‘ pared with all these evils, which are
 ‘ tolerated, allowed of, authorized by all
 ‘ laws?’

By these few specimens you will judge of
 the merit of this discourse of Mr. la Con-
 damine’s;—and, though they have prolonged
 your task of reading, as well as mine of tran-
 scribing, yet I persuade myself, that the sa-
 tisfaction you will receive from them, and the
 additional force they give to the whole argu-
 ment, will make your part no more unpleas-
 ing to you, than mine has been to me; and
 then, I shall be far from repenting the trou-
 ble I have taken.

I will just give you one or two passages
 more, which, I think, ingenious and strik-

H

ing,

ing, and then, in good earnest, conclude, recommending the whole treatise to your perusal.

He had been considering and answering some other objections, and at length comes to the following.—“ But the charge, says he, is renewed.”—“ Who will ever persuade a tender father wilfully to give his only son a distemper which he may possibly die of? Be the danger ever so small to which he exposes him by Inoculation, were it but one in an hundred, nay, in two or three hundred that this operation is fatal to, as is supposed, ought he voluntarily to expose his son to this danger?” Yes, sure, replies he, to save him from one infinitely greater. If prejudice does not totally extinguish the light of reason in the father. If he loves his son he cannot hesitate a moment. This is not a question in morality, [*I am not clear, by the way, that he is right here,*] ‘ it is a matter of calculation. Why should we make a case of conscience of a problem in arithmetic?’

‘ A

' A father ought to avert the dangers his
 ' son is threatned with, and if he cannot
 ' totally preserve him from them, he ought
 ' to lessen the peril as much as possible :
 ' upon this principle ought he, or ought he
 ' not, to inoculate his son ? To decide the
 ' question, you need only compare the ha-
 ' zards the child runs in both cases.'

And, a few pages farther on, after some
 calculations of the different event of the
 distemper, under the two ways of commu-
 nication, he proceeds thus:—' let us endea-
 ' vour to illustrate this important truth, by
 ' shewing it in a new light.—You are
 ' obliged, we suppose, to cross a deep and
 ' rapid river; the danger of being drowned
 ' is great, if you swim over. A by-stander
 ' offers you a boat. If you reply, you had
 ' better not go over at all, you mistake the
 ' state of the question ; for you are under a
 ' necessity of reaching the opposite shore :
 ' you have therefore no other choice, but
 ' of the means. This is the case of the
 ' Small-pox. It is common to all mankind

' with very few exceptions. Most of us
 ' must cross the river. Long experience
 ' has shewn that, of seven who venture to
 ' swim over, one is carried down the stream;
 ' whereas, not one in an hundred is lost of
 ' those who go over in the boat.—CAN
 ' YOU DELIBERATE UPON THE CHOICE?

F I N I S.