Vaccination : its tested effects on health, mortality, and population. An essay / by Charles T. Pearce.

ESSAY ON VACCINATION

BY

Dr. PEARCE.

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VACCINATION:

ITS TESTED EFFECTS ON HEALTH, MORTALITY, AND POPULATION.

AN ESSAY

BY

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"AUDE SAPERE."

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PREFACE.

THE author of the following essay became deeply impressed with the importance of the subject fourteen years ago, by an accident alluded to in the essay, which accident made him sceptical of the value of vaccination. As medical referee to one of the largest and most prosperous life assurance corporations, he was led to observe the apparent large mortality in vaccinated persons from what is commonly called "consumption," a great number being cut off in the flower of their age, while those, belonging to the same families, having had small-pox arrived at maturity. The very rare occurrence of phthisis in those who had had small-pox strengthened the idea which the author had conceived, that vaccination, while it prevented small-pox, increased the danger to life when the subject was overtaken by other diseases. The conclusions to which he came, from the data he collected, was, that vaccination generally was inefficiently performed; further inquiry, however, convinced him that *vaccination is a crime against nature*, and ought not to be enforced.

The *Lancet*, when the first Compulsory Vaccination Bill was before Parliament, on the 21st May, 1853, thus expressed itself on vaccination: "In the public mind, extensively, and in the profession itself, doubts are known to exist as to the efficacy and eligibility of

vaccination—the failures of the operation have been numerous and discouraging."

In the *London Medico-Chirurgical Review* for 1825, vol. ii., page 554, Dr. Gregory, then physician to the small-pox and vaccination hospital (no mean authority), thus wrote on vaccination: "The hope entertained by its illustrious and amiable discoverer that it might ultimately exterminate small-pox from off the face of the earth, appears vain and unfounded. The decree of Providence seems to be that small-pox shall never cease out of the land. In His mercy He has been pleased greatly to lessen the sphere of its virulence, and to mitigate the intensity of its horrors, but it still exists, and, as far as the human eye can penetrate, will for ever continue to exist—one of the many diseases by which man is chastised."

So far from viewing small-pox as a Divine chastisement, Dr. Bateman, in his work on fever, says, "The propagation as well as the character of those diseases is chiefly influenced by causes of a moral nature, or at least by such circumstances as the habits and institutions of man create, and which are, therefore, much within his own control; the character of an epidemic is in some measure a test or index of the situation and circumstances of the population among which it occurs."

In 1856, the author petitioned Parliament against compulsory vaccination. Still further research into the origin, extent, condition, and effects of vaccination, led him to abandon the advocacy of vaccination in his

medical practice, and in the year 1860 he publicly discussed the question, and lectured against the practice, which public lecture had an extensive circulation. The author does not stand alone in his opposition to compulsory vaccination. Many of his professional brethren have expressed their misgivings on the utility of vaccination.

To Mr. John Gibbs, England is especially indebted for his little book on the evils of Vaccination;* that gentleman has devoted much attention to the subject, and has brought together much valuable information from all quarters of Europe and America.

Dr. Nittinger of Stuttgard, and Dr. Bayard, of France, have also diligently laboured in the same good cause of opposing and exposing the practice of vaccination.

No subject in social science can be of deeper importance, or wider interest, than that to which the study of vaccination necessarily leads, viz., the mortality of the United Kingdom. Notwithstanding the attention which has been given in the last ten years to sanitary questions, it is discouraging to find that the annual rate of mortality in England is increasing—the boasted saving of life claimed for vaccination is not apparent, though Dr. Simpson, of Edinburgh, recently stated that "Jenner's discovery had been the means of saving a number of lives, *equal to the whole population of the United Kingdom, every twenty-five years.*"

* "Compulsory Vaccination briefly examined: being a letter to Sir Benjamin Hall, President of the Board of Health. 1856."

In page ii. of the last report, issued by the Registrar-General, a table is given of the annual rate of mortality in England from 1838 to 1865.* The mean death average in those twenty-eight years was 2·238 for every 100 living. If we take the first eight years in the table, viz., from 1838 to 1845, inclusive, the average will be found to be 2·176, and in the last eight years, viz., from 1858 to 1865, the average had increased to 2·251, a heavier death rate than the mean of the whole twenty-eight years, although in 1849 (the cholera year) the death-rate reached 2·512.

This increase in the death rate is coeval with the extension of vaccination under compulsory laws, whether to be viewed in the relation of cause and effect, may be determined by a perusal of the following essay. There is no evidence that "*Eighty thousand lives are annually saved by vaccination,*" as stated by Dr. Simpson.†

The most serious aspect of this great question, however, is presented in the following extract from the last Report of the Registrar General, lately issued, page 178.

"The 53,734 deaths by Phthisis of persons, the greater part of them adults, prove the great importance of a careful study of the causes of this disease. At the age of 20 and under 25, the deaths of young women, from all specified causes, were 8,477; and of these 4,290 *(being more than one-half)* died of Phthisis."

Appalling, indeed, is this fact, that half the young

* See Appendix to the following Essay.

† See further observations in Appendix.

women of England who die are cut off by consumption. That there must be some cause for this state of things, everyone will admit--the climate of England is not so materially changed, nor the habits of the people, as to account for this state of things. Food and creature comforts are less costly to the masses than in the earlier years of smaller mortality. Notwithstanding that drainage of certain districts has materially diminished the local* mortality, yet the death rate of England advances in a greater ratio than the increase of population.

How comes it that half the present inmates of our orphan asylums have been made orphans by the death of one or both parents from consumption? There is too much reason to fear that the cause is to be found in vaccination; if such be the results of having vaccinated one-half of the people of England, what may we expect if the bill passed in the last Session of Parliament, to enforce vaccination under penalties, be carried out?

Full and impartial investigation of the subject in all its bearings and relations, not only in the United Kingdom, but in the principal Continental States, has fully confirmed the Author in his view, that Vaccination is a mistake—that it is one of the numerous theories which will be tenaciously held by the Pro-

* The fifteen principal towns in which the death rate has been so materially lessened by draining, and thus drying the soil, are—Salisbury, Ely, Rugby, Banbury, Worthing, Macclesfield, Leicester, Newport, Cheltenham, Bristol, Dover, Warwick, Croydon, Cardiff, and Merthyr.

fession for a time, until it ultimately gives way and falls before the inexorable teachings of experience.

The Author is in the possession of data which would enable him to extend the following Essay into a complete treatise, and it would be interesting to do so, though tedious to the general reader; but he prefers presenting the subject in a comparatively brief essay, in the hope that his professional brethren, now wedded to the Jennerian theory, will, fairly and without prejudice, examine the question. Should his humble efforts excite the attention of the Philanthropist, the Statistician, and the Medical Philosopher,—above all, should the Author's efforts to elucidate the subject, lead to the suspension or repeal of all Acts of Parliament on Vaccination, that the people may exercise their inherent right of choice in medical matters, and no longer be submitted to the indignity of being fined in a Magisterial Court for refusing, at the bidding of the State, to contaminate their offspring, he will have the satisfaction and happiness of knowing that his labour has not been in vain.

28, Maddox Street, London, W.
February, 1868.

ESSAY

ON THE

VALUE OF VACCINATION.

Two methods of treating this subject present themselves: one from a *theoretical*, the other from a *practical* point of view.

No theory can possess any value if it will not bear the test of experience. No *à priori* argument can be safely applied to purely medical questions. The Baconian is the only truly scientific method of reasoning.

Now it must be admitted that the *theory* of Vaccination, however promising to its progenitor and early promoters, may possibly be erroneous. Conclusions hastily drawn in 1798 cannot have equal force in 1867, unless all intervening experience confirm them.

The Author suggests that it was extremely hazardous on the part of Dr. Jenner to assume, when he first commenced the practice of vaccination in 1798, that vaccination was a preventative of small-pox "*for life.*" It was not possible to determine, except *theoretically*, that the artificial production of one pustular disease

would effectually prevent, *during the whole lifetime of the patient*, the occurrence of another pustular disease. But as Dr. Jenner laid great stress on the theory, it is quite permissible for the essayist in our day to adjudicate on the system on similar grounds, and from a similar theoretical point of view.

Dr. Jenner commences his work on vaccination by stating that "Man has familiarized himself with a number of animals which may not originally have been intended for his associates," and proceeds to state that, "There is a disease to which the horse is frequently subject. The farriers have termed it *the Grease*. It is an inflammation and swelling of the heel, from which issues matter possessing properties of a very peculiar kind, which seems capable of generating a disease in the human body, which bears so strong a resemblance to small-pox that I think it highly probable it may be the source of that disease."

This is Dr. Jenner's *first* theory.

To continue, "in this dairy country (Gloucestershire) a great number of cows is kept; the office of milking is performed indiscriminately by men and maidservants. One of the former having applied dressings to the heels of a horse affected with *the grease*, incautiously milked the cows, with some particles of the infectious matter

adhering to his fingers. The disease thus communicated to the cows, and from the cows to the dairy-maids, spreads through the farm until most of the domestics and the cattle feel its unpleasant consequences. This disease has obtained the name of the COW-POX." Dr. Jenner goes on to describe the suffering of the milk-maids. "Inflamed spots begin to appear on the hands, sometimes on the wrists, which quickly run on to suppuration. Absorption takes place, and tumours appear in each axilla. The system becomes affected—the pulse is quickened, and shiverings, with general lassitude, and pains about the loins and limbs, with vomiting, come on. The head is painful, and the patient is even now and then affected with delirium. These symptoms generally continue from one day to three or four, leaving ulcerated sores about the hands, which commonly heal slowly, frequently becoming phagædenic, like those from whence they sprung. The lips, eyelids, nostrils, and other parts of the body are sometimes affected with sores. No eruptions on the skin have followed the decline of the feverish symptoms in any instance that has come under my inspection, one only excepted. Thus the disease makes its progress from the horse to the nipple of the cow, and from the cow to the human subject." . . . "What renders

the cow-pox virus so extremely singular, is, that the person who has been thus affected IS FOR EVER AFTER SECURE FROM THE INFECTION OF THE SMALL-POX."

This is Dr. Jenner's *second* theory.

It is difficult to understand how Dr. Jenner could undertake to say that those persons are *for ever secure from small-pox*, unless we admit that *assumption is law.*

For the sake of carrying on the argument we grant that Dr. Jenner, from many years of observation, substantiated this assertion: "That persons who have been thus affected are for ever after secure from the infection of small-pox."

We willingly accord to Dr. Jenner all the credit he deserves for having observed this phenomenon; indeed, we are willing to admit all that he claims in respect to persons "*thus affected*"—the phagædenic ulcers being directly traced from the greasy horse to the ulcers on the nipples of the cow. We can understand that a person thus inoculated with what appears to have been a highly inflammatory disease, accompanied by great febrile disturbance, delirium, etc., enjoying *an immunity from any eruptive fever* for many subsequent years of his life. Were vaccination thus practised in our day—were our little ones, our youth, and our fellow men "*thus affected*"—in all probability we should never hear

of the failure of vaccination as a preventive of small-pox. But, surely, there would be an universal disinclination to submit ourselves and our offspring to such a process, in order to prevent a disease *which might never affect us.*

Therefore, in discussing the question, whether vaccination is, or is not, an effectual preventative of small-pox, we must look well to it that it has been performed in the manner described by Dr. Jenner. We, ourselves, have observed the process as practised privately and at public institutions, but we never saw it performed in this manner.

Dr. Jenner distinctly states that those "thus affected" are "*for ever*" protected from small-pox; that is, "*when the disease has, evidently, made its way from the horse to the nipple of the cow, and thence to the human subject.*"

Is vaccination practised after this manner? Certainly not. It bears not the slightest resemblance to the diseased state from which the milkmaids and men suffered, and who thereby were protected from small-pox. Vaccine-lymph is now obtained from the cow affected idiopathically with cow-pox; and here let us remind the reader that the disease is of such rare occurrence that very few farmers or dairymen of the present day have seen it. Moreover, it is very difficult

to produce any effect even by inoculating the cow from the human subject suffering with small-pox. Mr. Marson, of the Small-pox Hospital, has inoculated a large number of cows without effect.

Now, let us suppose that the cow-pox spontaneously arises, and read what Dr. Jenner says of it:—

"It is necessary to observe that pustulous sores frequently appear spontaneously on the nipples of cows, and instances have occurred of the hands of servants employed in milking being affected with sores in consequence, and even of their feeling an indisposition, from absorption. These pustules are of a much milder nature than those which arise from that *contagion* which constitutes the *true cow-pox*. They are always free from the bluish or livid tint *so conspicuous* in the pustules of that disease; no erysipelas attends them, nor do they show any phagædenic disposition *as in the other case*, but terminate in a scab without creating any apparent disorder in the cow. This complaint appears at various seasons of the year, but most commonly in the spring, when the cows are first taken from their winter food and fed with grass. *But this disease is not to be considered as similar in any respect to that of which I am treating, as it is incapable of producing any specific effects on the human constitution.* However, it is of the greatest consequence

to point it out here, lest the want of discrimination should occasion an idea of security from the infection of the small-pox, which might prove delusive."

How important, then, is it to bear in mind that when the merits of vaccination are under consideration we should be well assured that it has been performed as Dr. Jenner performed it, viz., "*from the horse, through the cow, to the human subject.*" It is somewhat singular that in adducing cases in proof of the protective power of vaccination, Dr. Jenner should cite a case in which a patient, Mr. Abraham Riddeford, a farmer at Stone, in Gloucestershire, *who, being assured that he was protected, had small-pox twenty years afterwards.*

"Protection," says Dr. Jenner, "by inoculation directly from the matter from the heel of the horse, *cannot be relied on. The disease must be generated by the matter from the horse in the nipple of the cow, and passed through that medium to the human subject.*"

It is perfectly clear that Dr. Jenner's experiments were performed by the transfer of the purulent matter from a pustule found on farm servants. On the 14th of May, 1796, was the last of a few experiments until the spring of 1798. Dr. Jenner says, "Here my researches were interrupted till the spring of the year of 1798, when from the wetness of the early part of the

season, many of the farmers' horses in this neighbourhood were affected with sores on heels, IN CONSEQUENCE OF WHICH the cow-pox broke out among several of our dairies, which afforded me an opportunity of making further observations on this curious disease."

The true cow-pox—that which is alone protective, according to Dr. Jenner, is, and must be derived from the grease of the horse's heel. At page 46 of Dr. Jenner's work we find, "That the source of the infection is a peculiar morbid matter arising in the horse. I feel no room for hesitation, being well convinced that it never appears among the cows (except it can be traced to a cow introduced among the general herd which has been previously affected), unless they have been milked by some one who at the same time has the care of a horse affected with diseased heels."

At pp. 58, 59, Dr. Jenner alludes to the fact that, "Many, unfortunately, who had been vaccinated fell victims to small-pox, being as much subject to the contagion of the small-pox as if they had never been under the influence of this artificial disease—*they fell victims, who thought themselves in perfect security.*" This "accident" he attributed to the matter having suffered decomposition *through being kept for several days.**

* Yet the four quarters of the globe have been supplied with lymph from England, which must have been kept for months.

"Another cause of failure," says Dr. Jenner, "was owing to the incisions being made too deeply; *the fatality which attended this practice was almost inconceivable.*"

What is the natural deduction from Dr. Jenner's experience and practice? He distinctly states that the true cow-pox, which is protective, has its source in the filthy exuded pus from a disease in the horse called "Grease"—that the matter taken thence and transferred to the nipple of the cow, and thence to the human subject, is the only effectual method of securing the patient from an attack of small-pox—that so dangerous is the process, and so virulent the matter, that if the operation be carelessly performed, death may occur; and if the virus be not properly preserved, and thus suffer decomposition, the result may be fatal. That spontaneous cow-pox, as occasionally seen, is not protective.

We claim, therefore, for Dr. Jenner, due credit for all his painstaking researches on the subject. In his day the practice of inoculation, introduced by Lady Mary Montagu, extensively prevailed; and patients who had been properly inoculated had small-pox mildly. The chief, if not the only advantage which Dr. Jenner's process possessed over inoculation, was that cow-pox was not infectious in the human subject; while those

inoculated with small-pox became centres of infection and spread the disease over the country.

Of the two evils Dr. Jenner chose the lesser.

It is now nearly seventy years since Jenner published his work, from which we have quoted, and what system do we possess? Jennerism? No, but something worse. In our opinion we should begin *de novo*—follow Jenner's directions, beginning with the diseased horse, inoculate the cow, and therefrom vaccinate the people, if we wish effectual protection.

Vaccination as at present practised is a mockery. Lymph taken from the cow has passed by transference from subject to subject possibly ten thousand times. It is introduced, and because its introduction is followed by the appearance of a vesicle at the seat of puncture, it is assumed that the child is protected from small-pox throughout its after life. Is it likely that at our national vaccine stations, where no fresh supply of lymph has been procured for perhaps twenty or thirty years, vaccination is efficiently performed? Would the pains-taking enquirer and experimentalist, whose monument stands in the Gloucester Cathedral, could he now appear on the scene, witness with satisfaction, and deem that his system is done justice to by the vaccination of the puling, sickly infants, the offspring of the debauched,

the diseased, of the ill-fed and ill-clad poor of London, who are brought in crowds to the public vaccinator to receive a blessing, while too often it may be, they are the recipients, unconscious and innocent as they are, instead of a blessing, of the seeds of disease, and of premature death? Who shall say what are the contaminations of that lymph, itself originally the diseased product of matter expelled from the system of a beast, and rendered filthier still by oft-repeated transfers.

"Vaccination" is performed, and what is the result? Do we get back from the subject the lymph which we have deposited? No. We obtain in exchange for that which we have introduced, the product of that subject; it may be healthier than that which we gave, and it may be that some taint—of scrofula, syphilis, or cancer, or one of the thousand other modifications of disease—is associated with it, the lymph, like the seed of the tree, partaking of the qualities of the body whence it exudes. "Whose seed is in itself, bearing fruit after its kind."

We now propose to examine whether Jenner's theory of the origin of small-pox is correct or not.

The source of diseases is generally mysterious, yet in many cases it may be directly traced to the neglect of sanitary laws. The grease of the horse is understood to arise from want of cleanliness; horses kept too long on dirty and wet straw is a common cause. Want of attention to cleanliness and to ventilation causes the animal to sicken, and the heel throws off a purulent matter, the result of the blood becoming tainted. To say that this is identical small-pox is to say that small-pox in the human subject results from similar causes. The poor who live in dens fit only for the habitation of swine—the scavengers of creation—dirty in their habits and in their bodies, living, like some horses, cruelly shut up, generate disease. The blood becomes tainted, and the taint is evident by the appearance of a pustular eruption. The disease in this way becoming contagious, spreads in the neighbourhood, and whole communities are destroyed. At another period, from the same causes, springs typhus; at another period, measles.

Until the great fire of 1666 destroyed London, plague broke out periodically. Far better would it be for the authorities to sweep the towns and villages clear of the abominable accumulations of refuse too common in

them, than to vaccinate the people. Indeed, fire would be a blessing to most villages, as it would compel the re-building of them; for low, thatched roofs and tiny casements, and no sewerage, are now the order of the day—and endemic fever is the consequence.

Hippocrates predicted the advent of plague at Athens, and it is said that when the plague broke out in Greece, he dispelled it "by purifying the air with fires, into which were thrown sweet-scented herbs and flowers, along with other perfumes."

In the book of Numbers it is recorded that "Aaron took as Moses commanded, and ran into the midst of the congregation; and behold the plague was begun among the people, and *he put on incense.* . . And he stood between the dead and the living, and the plague was stayed."

It is probable that small-pox existed long before grease affected the horse. The Chinese profess to have known small-pox three thousand years ago.

In the year of Mahomet's birth, 572, small-pox and measles are said to have broken out in Arabia. From Arabia it was carried to Spain: thence into France. At the beginning of the eighteenth century, about one-fourteenth of the inhabitants of the latter country died of small-pox, and in the last thirty years of that century

one-tenth died, the annual loss of life being thirty-five thousand.

When the practice of inoculation was first commenced in England, the proportion of fatal cases appears to have been one in fifty, and of those who contracted small-pox naturally, one in six died. Moore, in his "History of Small-Pox," published 1815, says, "last year near a thousand persons died of the small-pox in London—six hundred and thirty-eight in the City."

Small-pox has, very properly, been classed, from the earliest times, with measles and other diseases incident principally to childhood. Modern observation has confirmed this.

Rhazes, an Arabian physician, whose work on small-pox and measles has been translated and published by the Sydenham Society, accounts for the different liability to the former disease by supposing that the blood undergoes successive changes from infancy to old age. These changes he compares to fermentation. "The blood of infants and children may be compared to must in which the coction leading to perfect ripeness has not yet began, nor the movement towards fermentation taken place.

"The blood of young men may be compared to must which has already fermented and made a hissing noise

and has thrown out abundant vapours, and its superfluous parts, like wine which is now still and quiet, and arrived at its full strength.

"The blood of old men may be compared to wine which has now lost its strength, and is beginning to grow vapid and sour.

"Now the small-pox arises when the blood putrifies and ferments, so that the superfluous vapours are thrown out of it, and it is changed from the blood of infants, which is like must, into the blood of young men, which is like wine perfectly ripened; and the small-pox may be compared to the fermentation, and the hissing noise which takes place in must at that time. And this is the reason why children, especially males, rarely escape being seized with this disease, because it is impossible to prevent the blood changing from this state into its second state." . . . "And the temperament of an infant or child is seldom such that it is possible for the blood to be changed from the first state into the second by little, and orderly, and slowly, so that this fermentation should not show itself in the blood." . . . "Then afterwards, alterations take place in their condition, according to their temperaments, regimen, and natural disposition, the air that surrounds them, and the state of the vascular system—in some it is very bad in quality, in others less deteriorated."

Rhazes then goes on to speak of the less liability of young men to small-pox, and "as for old men, the small-pox seldom happens to them, except in pestilential, putrid, and malignant constitutions of the air, *in which this disease is chiefly prevalent.*"

Rhazes also notices the different susceptibilities to small-pox:

"1st. Those most disposed to the small-pox are moist, pale, and fleshy, the well coloured also, and ruddy, as likewise the swarthy when they are loaded with flesh, those who are disposed to acute and continued fevers, bleeding at the nose, inflammation of the eyes, etc., etc."

"2nd. Bodies that are lean, bilious, hot, and dry, are *more disposed to the measles than to the small-pox;* and if they are seized with the small-pox, the pustules are necessarily either few in number, distinct, and favorable, or, on the contrary, very bad, numerous, sterile and dry, with putrefaction, and no maturation.

"3rd. Lastly, those bodies that are lean and dry, and of a cold temperament, are *neither disposed to the small-pox nor to the measles;* and if they are seized with the small pox, the pustules are few, favorable, moderate, mild, without danger, and with a light moderate fever from first to last."

The author of this Essay has, during many years' observation, often been forcibly struck with the dif-

ferent susceptibilities to small-pox in different individuals, even when members of the same family. In one family of seven brothers and sisters, living in one house, *all unvaccinated*, only one of them had small-pox, two others had slight fever, and the rest escaped even that. Had those six persons been vaccinated, their escape would have been attributed to their vaccination.

That the blood does undergo a change at one period of life there can be no doubt, and this change is not peculiar to man. Domestic animals are liable to eruptive diseases, which are efforts of nature to throw off through the skin some morbid matter, the result of decomposition, or, as Rhazes terms it, a fermentation, of the blood.

It is believed by some veterinary authorities that the disease in the horse's heel called "*grease*," corresponds to phthisis in the human subject. If this be true, how serious is the thought of the bare possibility of inoculating children with phthisis; and how fully does this account for the great and alarming increase of phthisis in those countries wherein vaccination has been enforced!* It is a remarkable fact that Jenner's first

* Dr. Nittinger, of Stuttgard, has published several volumes on vaccination, in which this fact is painfully illustrated.

Since this Essay has been in type, the Twenty-eighth Report of

child, his eldest son, on whom he experimented, died subsequently of consumption. Another of his subjects, the man Phipps, whom Jenner vaccinated, also died of consumption.

This important question suggests itself: Is it advisable to prevent, by any process of inoculation, the development on the surface of the body of an eruptive fever? Is it wise and advantageous to vaccinate?

At first sight it seems most desirable to prevent, if possible, people being afflicted with what is admitted to be one of the most serious forms of fever incident to mankind—a disease which, when confluent and badly managed, disfigures the features so seriously for life.

If, however, the change of blood be necessary to the

the Registrar-General has been issued. At page 177 of that report the following passage occurs:—

"Constitutional Diseases.—These diseases have this in common with zymotic diseases, that they are diffusive; they work changes in several parts of the organism, and it has recently been shown by Villemin (see *Lancet*, 1867, p. 582), that tubercle is, even when introduced by inoculation, capable of inducing tubercular deposits in the organs of animals. These experiments have been repeated, and the results are decisive. The prevalence of phthisis in the armies of Europe is probably due in part to the inhalation of expectorated tuberculous matter, dried, broken up into dust, and floating in the air of close barracks. To test this may be difficult, *but the origin and propagation of the most fatal of all human diseases deserves full investigation.*"

future well-being of the human subject; and if it be essential that such change should be manifested and produced by an eruptive fever, are we not committing a gross mistake by vaccinating, and thus producing a physiological change, which we do not as yet understand, but which hinders nature in her efforts to throw off a poison—an impurity of the blood, however it may have arisen? In a word, is vaccination a blessing, or is it a curse?

The whole subject of infantile diseases is a mystery. We know not why measles, scarlatina, small-pox, and whooping-cough, should attack the majority of children in civilized countries. Possibly the origin of these diseases will ever remain concealed from us, although some attribute them to the fall of man.

It should be the object of every one of us to remove everything tending to breed fever; to see that our towns and villages are free from the contaminations of bad air, bad water, bad drainage, bad dwellings, immorality and vice, for all these engender disease. Why one disease should prevail at one time, and then remain in abeyance while another is rife, we know not. At one time small-pox is in the ascendant, at another time scarlatina, at another measles, and so on. Epidemics appear to possess a periodicity of recurrence—a

cycle of years marking their visitations. Asiatic cholera appeared in England in 1832, in 1849, and in 1866—at intervals of *seventeen** years. The plague recurred in cycles or periodicity two centuries since. Can we alter the laws which govern the visitations of epidemics? Can we rid the world of small-pox by means of vaccination, saying, "we will not have this disease to reign over us."

Has any reduction of the general mortality been effected by vaccination? Have we not admitted the enemy in another way, a more insidious one, while attempting to keep him at bay in his old channel?

Have we, by shutting up the skin, lengthened or shortened life?

These are questions that are too serious to be glossed over—they must be answered, as far as possible, without the lymph-charged lancet. If it be established that among the vaccinated, fever is much more fatal than among the unvaccinated†—if it be proved that in this

* Seventeen was the Pythagorean number of death.

† "The effect of vaccination in increasing the mortality in Fevers, in France, was shown in 1854 by Dr. Perrin. Of 114 cases of typhoid-fever, 76 had been vaccinated, 38 unvaccinated. Of the 76 vaccinated, 35 died; of the 38 unvaccinated, 3 died. The mortality is, therefore, in the relation of 35 to 6, or nearly 6 times greater among those who had been vaccinated. It is to be regretted that in England we have

country Phthisis* is greatly on the increase—that the elder children of a family having small-pox naturally survive to manhood and womanhood, while the younger

no statistics to show whether fever patients admitted into hospitals have been vaccinated or not. In the army of Paris, consisting of twenty-five thousand men, the following are the causes of death, as furnished by Baron Michel :—

STATISTIQUE DE L'HOPITAL DU GROS CAILLON :

Diseases.	1816.	1838.
Small-pox	4	21
Fever, intestinal or continued	46	276
Chest disease	159	159
All other causes	41	41
Total number of deaths	250	500

The doubling of the mortality in the army of Paris from 1816 to 1838 is, therefore, not due to small-pox becoming more frequent, but to the fact that *fevers became more frequent in the proportion of six to one, after the army was vaccinated.* The most remarkable confirmation of the fact that increased mortality is due to vaccination is found in the report of Drs. Desgenettes and Broussais, physicians at the hospital at Val de Grace. In the two years 1816, 1817, the deaths were fifty-one in a thousand; in 1818, 1819, *eighty-one* in a thousand, Thus, in the same hospital, under the same physicians, without the occurrence of any epidemic to account for the increased mortality, the increase was sixty per cent. The explanation being that in 1818, 1819, there was a large accession of volunteers *who had been vaccinated;* while before 1818, it was difficult to find one soldier who had been vaccinated."—*Homœopathic Record,* June, 1860.

* In the five years 1838 to 1842, inclusive, the average annual mortality in England and Wales, from phthisis and bronchitis, was, in round numbers, 61,000. In the five years 1847 to 1851, it was 65,750. In the five years 1852–56, 69,250. In the five years 1857-61, 79,530. In the five years 1861-65, 86,336.

members who have been vaccinated die of consumption* —is vaccination a blessing or a *curse?* Who will presume to say that it is a blessing?

If it has been established, and it has been established beyond all doubt, that filthy diseases have frequently been transferred and infused with the vaccine-lymph into previously healthy individuals, is not vaccination too dangerous to be a blessing?

Is vaccination a blessing when fearful convulsions have attacked children subjected to it?

In the *New York Medical and Surgical Journal*, Dr. Shaw thus writes on vaccination, "*I have known most fearful convulsions brought on by it, and that in children apparently in the firmest health.*"

Every physician knows that convulsions frequently accompany attacks of exauthematous fevers in children, and that as soon as the eruption appears the convulsions cease. The author has observed in a great number of cases that have come under his care, that convulsions are far more severe in vaccinated than in unvaccinated children.†

* See page 66.

† Sir Robert Peel, when it was proposed to render vaccination compulsory, objected, remarking that such a proceeding would be so opposed to the mental habits of the British people, and to the freedom of opinion in which they rightly gloried, that he would be no party to

It is but a natural, and a perfectly reasonable inference that if vaccination produces a physiological change in the skin or the blood, which prevents the development of a pustular eruption, that measles and scarlatina are likely to be more severe than if no such artificial change has been effected by vaccination.* We will now show that since vaccination has been made com-

such compulsion. Three years after the death of that great statesman, the Compulsory Vaccination Act of 1853 was passed. Its working is exemplified in the following extract from a letter dated "Barnsley, May 5, 1857," and signed "Æneas Daly":—

"Mr. Joseph Frith had a child vaccinated in 1848, which died in fourteen days from the effects of vaccination. He was summoned by the registrar in January last. He told the magistrate that he had had one child killed by vaccination; and he feared that, if forced to have another vaccinated, it also would be killed. He was forced to comply; and in less than three weeks, the child, though previously perfectly healthy, *died of fits, similar to attacks to which some of the family of the child from whom the vaccine matter was taken were subject.*"

* Dr. West, physician to the Hospital for Sick Children, thus expresses his opinion regarding the relationship of measles and small-pox: "With reference to the alleged increased prevalence of measles, since the introduction of vaccination, it suffices to say that vaccination preserves only from small-pox, not from any other disease. Measles is, next to small-pox, the most contagious of all fevers. The child who sixty years ago would have died of small-pox, is now preserved from that, often only to catch, *perhaps to die* of measles. *An increased number of deaths from the latter disease was the unavoidable consequence of the comparative extinction of the former.* The fact is obvious, though for the moment lost sight of by some philanthropists."—(*Parliamentary Blue-book*, p. 146.)

pulsory, the mortality from measles and scarlatina has greatly increased. The following figures are taken from the Registrar General's Report (Appendix), 1865. Scarlatina and diphtheria are classed together from 1850 to 1859.

Annual Deaths to One Million living.			
	5 Years, 1850—54.	5 Years, 1855—59.	5 Years, 1860—64.
Measles	406·0	412·0	478·2
Scarlatina ..... } Diphtheria ..... }	890·8	1103·6	925·6 / 264·2
Totals	1296·8	1515·6	1668·0

Since the Compulsory Vaccination Act came into force there has been an excess of 254,000 in infant mortality in seven years.

The actual value of vaccination, considered from a theoretical point of view, is justly questioned, after an experience of seventy years. And from a practical point of view, its value as a preventive of small-pox is equally questionable and unsustained.

The question of the retention of the power of vaccination involves an appeal to statistics. That it does not retain its power "*for life*" is manifest by the fact that legislation is sought to enforce *re*-vaccination, seeing that as many as 81 per cent. of patients suffering

with small-pox admitted into the Highgate Hospital are found to have been vaccinated.

"The ratio of vaccinated cases to the whole admissions of small-pox patients, as calculated from a series of sixteen years, ending with 1851, was 53 per cent., a proportion which has gone on progressively increasing. In the epidemic of 1851-2 it was 66 per cent; in that of 1854-5-6 it was 71 per cent.; in 1859 and 60, 78 per cent.; and for the four years of the present epidemic it has been 81 per cent."*

Thus if only 20 per cent. of the vaccinated are "protected," then only ten per cent. of the population are protected, seeing that only half the population are vaccinated.

Does vaccination prevent small-pox? We have produced evidence from Dr. Jenner's writings that—

1st. Performed as he performed it, it was protective.

2nd. That when performed, even in his time, by other medical men, not only was it not protective, but the operation often proved fatal.

3rd. That as at present performed, and as practised for the last thirty years, vaccination does not prevent small-pox, is forcibly attested by the foregoing statistics of the Small-pox Hospital.

* Report for 1866 Small-pox Hospital, page 7.

4th. That the enforcement of vaccination has been accompanied and followed by increased infant mortality, and increased mortality from chest diseases, measles, and scarlatina, the statistics previously quoted have proved. And that we are led to regard these circumstances as united in the relationship of *cause and effect*, from the considerations and for the reasons before mentioned.

What, then, is the value of vaccination? We firmly believe that it has no value at all. Its supposed value has been deduced from incorrect reasoning on the part of its advocates. Were small-pox as prevalent and as fatal now as in the eighteenth century, it might even be justifiable to have recourse to inoculation—either by variolous or vaccine matter. History, however, has demonstrated that towards the close of the last century, when Jenner introduced his system, small-pox had gradually died out, as we shall presently show. Even in Jenner's day small-pox had lost its virulence. At p. 54 of his work he says, "About seven years ago (1791) a species of small-pox spread through many of the towns and villages of this part of Gloucestershire. It was of so mild a nature that a fatal instance was scarcely ever heard of, and consequently so little dreaded by the lower orders of the community, that they

scrupled not to hold the same intercourse with each other as if no infectious disease had been present among them. I never saw or heard of an instance of its being confluent. The harmless manner in which it showed itself could not arise from any peculiarity *either in the season or the weather, for I watched* its progress upwards of a year without perceiving any variation in its general appearance."

Had vaccination been prevalent at that period, how readily would the mildness of the epidemic have been attributed to its "protection!"

Jenner's contemporaries having no interest in supporting the theory and practice of vaccination, could, therefore, fairly and impartially judge of the merits and demerits of his discovery, and they expressed their conviction that his doctrine was erroneous, that his assertion that vaccination was protective for life against small-pox was not founded in truth, nor justified by experience.

"Goldson maintained that inoculated cow-pox may prove only a temporary prevention, and that in some determinate time after vaccination, varying perhaps according to the different constitutions, a person who was at first secure may again become susceptible to small-pox; and, in support of this, he

cites eighteen cases of *post-vaccinal* small-pox. Jenner denounced Goldson's folly, yet time has fully vindicated Goldson. Our Prince Arthur having had small-pox recently is a case in point.

"Dr. Squirrell, a predecessor of Mr. Marson at the small-pox hospital, opposed vaccination on the theoretical grounds that cow-pox originates in scrofula—a doctrine with which we have no concern at present; that we had already 'too many maladies;' that vaccination affords no security against small-pox; and that injurious consequences frequently followed vaccination; in support of which conclusions he instanced thirty-nine cases." Mr. Birch argued that 'vaccination has been too often fatal—has introduced new disorders into the human system—and is not a perfect security [as asserted by Jenner] against the small-pox.' Mr. Rogers held similar opinions, which he maintained by citing various examples. Dr. Mosely maintained that 'those persons who have had the cow-pox are *not* perfectly secure from the infection of small-pox; that the inoculated cow-pox is *not* a much milder and safer disease than the inoculated small-pox.' Dr. Moseley's facts and shrewd remarks should have received more serious attention than his opponents vouchsafed to bestow. Mr. Stuart cited a case of a child who had enjoyed good health

prior to being vaccinated, from which time 'he was always afflicted with blotches and ugly eruptions, until he had the small-pox,' after an interval of three years; after which, 'he was perfectly healthy as before.' . . In that blue-book, of which Jennerites boast as such a masterly résumé of all that can be said for vaccination, we find many Jennerites confessing the evil results of the practice; and elsewhere we have such distinguished Jennerites as Drs. Macinder, Tice, Dartnell, Letheby, and other civil and military medical officers, advocating re-vaccination on the ground that a first vaccination does not afford permanent protection."—*Mr. Gibbs' Letter to Homœopathic Record, September*, 1859.

Dr. Greenhow, of North Shields, wrote as follows to the *Medical Gazette* (vol. ii., p. 589), January 22nd, 1833:—"It is a well known fact that small-pox after vaccination has become of much more frequent occurrence within the last few years. Twelve or fifteen years ago, cases were occasionally met with, but comparatively rarely; but since that period it is everywhere becoming more frequent. It is no unusual circumstance to find five or six individuals of the same family successively attacked by that disease."

Dr. Gregory, who was for some years physician to the small-pox hospital, wrote (on the recurrence of

exanthematous fevers, *Medical Gazette*, 1831, p. 493,) that "abundant experience has shown that after receiving cow-pox effectually, the human body remains insensible to *the same poison* for a considerable period of time; but for what that period is, whether for life, or for larger or smaller portions of life, are questions of importance deserving rigid investigation.

"The opinions of Dr. Jenner on the subject of recurrent cow-pox are not, I believe, published. In a letter with which he favoured me in 1821 (a year and a half before his death), he mentions that he had projected a work on an extended basis, in which the question should be fully considered. Whether he ever executed this design, I have not been able to ascertain.

"After the period of puberty the susceptibility to cow-pox appears to return in a considerable number of persons. The course of the disease is then variously modified, but sometimes *no modification of any kind is perceptible.*

"I think the principle is clearly made out that the law of the animal economy regulating the re-susceptibility of *cow-pox* is *different from that which governs small-pox.* The general impression is, I believe, and always has been that 'the laws which govern the reception of cow-pox and small-pox are identical.'

My own observations would lead me to look upon this as '*an error in pathology.*'"

In the *Medical Gazette*, vol. iii., p. 221, the following cases are recorded :—

"Thomas Allard, aged 6 years, vaccinated when nine weeks old, caught small-pox from his brother Isaac.

"Mary Allard, sister to the above, vaccinated when nine months old, caught small-pox at two years of age —now ten and a half.

"Since nursing her brother, has been suffering with pain in epigastrio, lassitude, &c., and has several very suspicious looking variolous eruptions.

"H. R. W., æt. 26, a medical gentleman, vaccinated when an infant *by the illustrious Jenner*, caught small-pox two and a half years ago, *a very severe case.*

"Richard Simmons, aged 21, *vaccinated* when seven years old—a decided and very severe case of small-pox.

"Sarah Allen, aged 2½ years, vaccinated when a few weeks old. Three weeks ago caught small-pox. The vaccine cicatrix is well formed and very distinct."

The medical gentleman who contributed these cases to the *Medical Gazette*, stated, "I could multiply instances, but these will suffice." In the same volume

of the same journal the following contribution appears from Thomas Solly, Esq., Surgeon, Walthamstow :—

"A married lady, aged about 22, entertaining the opinion (which is very generally credited out of the profession) that the efficacy of vaccination ceases after the lapse of a certain term of years, was desirous of being re-vaccinated.

"The cicatrix of the former vaccination, undergone in infancy, was distinct, and so large as to attract particular notice. She was re-vaccinated about a month ago—the process was completed.

"The result of the experiment is confirmatory of the idea that vaccination loses its prophylactic power, or that the very common test of re-vaccination is fallible.

In vol. v. of the same journal, four cases of post-vaccinal small-pox are given in detail by Mr. P. M. Hosking, of Fleet Street, who sent his account with the following letter :—

"To the Editor,—Sir, So much has been said and written on the seat and nature of small-pox, and the effect of vaccination in preventing altogether, or modifying its attack, that some apology is due for introducing myself on your notice, but having met with *four cases within four months, all occurring after vaccination*, I have sent you a statement of them.

"In no case did there appear anything to account for the attack, or any exposure to contagion. The first occurred in a young man occupied in a large shop, among a considerable number of others, yet he alone was singled out for the disease, and he alone suffered.

"In the second case the attack is alike unaccounted for. A gentleman, in no way exposed to infection, *had a most aggravated form of the disease.* He described to me a presentiment of some fever coming on for at least two months before it made its appearance.

"The third case is that of a child who suffered severely from the disease, and ultimately fell a victim to it.

"The fourth case is that of a young woman who had the disease very mildly, but its commencement is equally unaccounted for."

It is an established fact that small-pox does occasionally recur a second time to the same individual.

In the year 1830 the National Vaccine Institution sent its report to the Right Honourable Robert Peel, then Home Secretary, in the following words:

"Sir,—We have the honour to inform you that the small-pox has prevailed epidemically in several parts of the country with great severity in the course of the last twelve months, and that *not less than twenty-eight*

well authenticated instances have been reported to us of the disease having recurred to people who have had it before, either naturally or by inoculation. We cannot be surprised therefore if it shall have been found that many who have been vaccinated have also contracted the small-pox after it."

The *Medical Gazette*, November 6th, 1830, contains the following :—

"Extract of a letter to Dr. Gregory from J. S. Chapman, Esq., Acting Assistant-Surgeon 11th Light Dragoons, dated Cawnpore, East Indies, May 4, 1830. 'Small-pox has been playing the very deuce at this station. There appears to be *no positive security against the disease, either by vaccination, or by small-pox inoculation*, and I have seen several cases where the patients *have caught small-pox twice*, and have each time been very severely marked, and, in two instances, *have died of the second attack of small-pox.* Certainly by far the greater number of our small-pox cases have occurred in persons vaccinated in India some twelve or fifteen years ago."

Dr. Jenner, in his petition to Parliament, said, cow-pox renders the person inoculated perfectly secure through life from the infection of small-pox.

At that time the fact had been overlooked that a person may have small-pox twice, and may die of the

second attack. If, reasoned Jenner, small-pox prevents small-pox, cow-pox should prevent it also. Moreover, he believed that cow-pox prevented cow-pox, and, accordingly, *once* vaccinated, the person was protected "*for life.*" However, Jenner lived to see his error: he found that vaccinated people not only were attacked with small-pox, but that it attacked them sometimes twice. These observed facts, and the frequent failures of vaccination in his own time, led to his advising (more than forty years since) *re-vaccination; indeed, he re-vaccinated his patients once a year.*

Down to that period Dr. Jenner and the anti-vaccinists were at issue. Jenner denied that the influence of cow-pox was either so transient and uncertain; on the contrary, he maintained that if the cow-pox had gone through all its stages in a satisfactory manner, it afforded protection nearly, if not entirely, equal to small-pox itself.

The last publication of Dr. Jenner on the subject of vaccination, was his *circular* respecting the influence of cutaneous diseases in modifying or deteriorating the effects of vaccination. He attached great importance to this subject, and ascribed many of the disappointments that arose, to a disregard of the facts which he had pointed out. He was arranging and digesting his

information on this subject when death overtook him. The last words he wrote on the subject of vaccination, were written a few hours before his fatal seizure, and were as follows:—

"Mon opinion sur la vaccination est absolument ce qu'elle etait lorsque j'ai publié la découverte. Il ne s'est passé aucun evénement qui ait pu l'affaiblir ou la fortifier; car si les fautes dont vous parlez n'avaient pas été commises, la vérité de mes assertions, concernant les circonstances qui les occasionnent n'aurait été prouvé."—*Medical Gazette*, July, 1831.

It appears to the author of this Essay, that one of Jenner's great mistakes consisted in his view that cow-pox and small-pox were governed by the same laws—moreover he said that the "grease" in the horse was identical with small-pox in the human subject.* Since Jenner died, it has been shown that small-pox will coincide in the same subject with cow-pox. This fact is generally admitted, and detailed cases have appeared in English medical journals.

* It has been noticed in the former part of this essay, page 15, that Jenner deemed it necessary that the *virus* from the diseased horse should *pass through the cow to the human subject.* In 1817, however, Jenner inoculated *directly* from the horse, without the intervention of the cow, and with this matter he supplied the National Vaccine Establishment, and it was extensively diffused in England and Scotland. See Baron's Life of Jenner, vol. ii., p.p. 225—6.

"If," said Gregory, "cow-pox does not, even when most duly taken, give perfect or permanent security againt itself, it cannot be expected to do so against small-pox; and that such is the fact in a considerable number of cases, the phenomenon of re-vaccination tends clearly to show. There can, I think, be no doubt that Dr. Jenner, in the first instance, overlooked this important peculiarity in the character of cow-pox. Observing the close similarity between cow-pox and small-pox in some points (a similarity which, in his opinion, amounted almost to identity), he was naturally led to conclude that, as small-pox afforded immunity from recurrence, it would be the immunity afforded by once undergoing cow-pox against a renewal of the same disorder. Assuredly nothing less than a strong impression and conviction that *cow-pox gave a perfect and permanent security* against its own recurrence, would have induced Dr. Jenner to use those remarkable expressions contained in his first memorial to Parliament: '*Cow-pox renders the person inoculated perfectly secure through life from the infection of the small-pox.*'"—*Medical Gazette*, 1831, p. 495.

To the question propounded to Mr. Birch, viz., "Why is the practice of vaccination in the metropolis declining?" he replied, "BECAUSE THE EXPERIENCE OF

SEVEN YEARS HAS PROVED IT TO BE A FALLACIOUS EXPERIMENT, INCAPABLE OF REALIZING THOSE SEVERAL ADVANTAGES WHICH WERE PROMISED TO PARLIAMENT, AND WERE EXPECTED TO BE ACCOMPLISHED."—*Birch on the Cow-pox*, 1807.

The College of Surgeons sent out questions to be answered by medical men. Eleven hundred letters were sent out, but only four hundred and twenty-six answers were received. In those answers, *fifty-six cases of failure, sixty-six cases of eruptions, four bad arms, and three deaths,* were reported.

Yet the Report of the Committee of the House of Commons on Jenner's discovery—on which report the money grant was made to Jenner—stated, upon the evidence given,

1st. That vaccination effectually secured the patient from small-pox.

2nd. That it never was followed by eruptions.

3rd. That it had never been known to be fatal.

Every one of these assertions has been falsified. It is evident that conclusions were too hastily drawn. So fatal had been the epidemic, that a panic had seized the Parliament and the people, and then upon insufficient evidence a medical theory was established and bought most dearly by Parliament.

The highest medical authorities of that day, either denounced the theory and practice of vaccination, or declined to give their assent.

Dr. Copland (*Medical Dictionary*, vol. iii., part 2, p. 829) says, "I stated, in 1823, from evidence which had come before me in families which had suffered in numbers from small-pox, that the protection afforded by vaccination was impaired by years, and wore out in twelve or fourteen years, or in a longer or shorter time according to diathesis, etc.—that vaccinated persons were liable to small-pox in a more or less modified form after some years, say nine or eleven; in a mild but distinct, fully developed form in from twelve to fifteen years; and to the usual states of the distemper according to diathesis, to exposure, to infection, and epidemic prevalence, after this more advanced age. What was then predicted has been so generally fulfilled that re-vaccination has been adopted in many places, and has often failed, *natural small-pox having, notwithstanding, appeared in the re-vaccinated.*

"Thus half a century has brought us to the position that we are doubtful which to prefer—vaccination, with its present benefits and its *future contingent dangers;* or inoculation, with its possible present dangers, *and its future advantages.* Another half century—the end of

the nineteenth century—will, I fear, find the physician no longer in doubt as to which he will choose even in this climate, as he no longer can be in doubt in India and other parts of the East, *unless he be influenced by authority and prejudice.*"

"From December, 1849, to April, 1850, inclusive, 76 cases of small-pox were admitted into the General Hospital at Calcutta. Of these cases 29 died. Of the 76 admitted 66 had been vaccinated. Of the 66 vaccinated 41 had good cicatrices, 25 were not so well marked. Of the total 76 cases 30 were severe and confluent, 46 mild or modified. Of the 10 unprotected cases 5 were severe and confluent, and the remaining 5 were mild attacks. Of those who had been vaccinated in early life 16 died. The mortality here stated as occurring from variola after vaccination was 16 out of 66, *or* 24 *per cent.*"—*Medical Gazette.*

Undoubtedly vaccination has been and now is inefficiently and improperly performed. The Privy Council recently published an official Report, from which the following extracts were taken :—

"As the best means of obtaining information on this point we examined the cicatrices on the arms of 49,570 vaccinated children in various schools, industrial establishments, and workhouses of London.

"Of these 50,000 children, only 180 in a thousand were found to be properly vaccinated.

"In one-fifth of the *whole number of children examined* vaccination was found to be *wholly bad.*"

The conclusions deducible from the foregoing statements are,

1st. That small-pox if severe only occurs once in the same individual, but that, like scarlatina, measles, and other fevers, slight attacks may be experienced more than once.

2nd. That cow-pox is preventive of small-pox only in proportion to the severity of the disease, and that its protective power is exhausted sooner or later in various individuals.

3rd. That vaccination as usually performed affords no protection against an attack of small-pox.

The "actual value of vaccination," therefore, must be estimated by the manner in which it is performed, and by the uncertainty of its prophylactic power even when properly performed and repeated.

We now come to the consideration of the second proposition, viz.:

"The dangers of vaccination from the introduction

of other diseases into the organism, and the extent to which the value of vaccination is reduced by such dangers."

The dangers of vaccination may be thus classified —

1. Danger to life.
   - *a.* Immediate.
   - *b.* Remote.
2. Danger to health.
   - *a.* By the introduction into the system of other diseases.
   - *b.* By inducing a change in the skin or the surface of the body, which changes its vital action, and so hinders the system from throwing out morbific matters from the blood.
3. The greater liability to death from other diseases than small-pox, in the vaccinated.
4. The transmission from parent to offspring of an enfeebled constitution, the result of vaccination.*

The author has collected a large number of cases, the accounts of which he has extracted from the Regis-

* One important fact should be kept in mind, though universally admitted, viz., That small-pox is *not* transmissible from parent to offspring, but that phthisis *is* undoubtedly. How serious the thought, then, that vaccination may perpetuate its dire effects through all time.

trar-General's Reports, and from the medical journals, in which "death following vaccination" is recorded. Were any doubts existent in the minds of medical men on the subject, it might be worth while to reproduce the accounts of those cases in this Essay; but the danger is so well known and so widely recognized, that two or three illustrations will suffice.

"It is our duty," said the report of the first Vaccine Institution, "to acknowledge that four or five cases have proved fatal from the affection of the part vaccinated."

The lamented death of the late Sir Culling Eardley, in 1863, due to re-vaccination, will be fresh in the memory of all.

In 1859-60 several of our soldiers in Shorncliffe Camp were fatally affected by re-vaccination, one poor soldier escaping death by the amputation of his arm, which was done at his earnest entreaties.

A few years since attempts were made to re-vaccinate the French army. The cavalry at Toulouse were thrown into hospital by the process to such an extent that, by order of the Emperor, re-vaccination was suspended.

Mr. Wells, of Great Marlborough Street, detailed a case (in a letter to the *Medical Times* and *Gazette* of May 30, 1863), of a lady, aged 55, the mother of a

family, whom he vaccinated on the 14th of May, 1863, at her own request, "taking good matter from the vesicle of a healthy child; immediately upon making the punctures the patient swooned," for which Mr. Wells ordered the necessary stimulants, and after seeing that she would soon be brought round again, he left. "A visit on the following morning, however, disclosed the fact of very singular symptoms having set in; the arm was much swollen, and had a dark purplish hue, much resembling the colour of a bullock's liver, the punctures nearly invisible, and the whole region of the operation presenting the appearance as of having been bitten by some venomous reptile. Remedies were applied, but the patient grew rapidly worse; other professional advice was necessary, and Dr. Bridge, of Argyle Place, Mr. Tatum, of St. George's Hospital, and Dr. McKenna, of Great Marlborough Street, attended; but the symptoms entirely baffled their skill and experience, and the patient died at midnight of the 18th, of (as agreed by the gentlemen named) phlegmonous erysipelas." It should be mentioned that Mr. Wells afterwards discovered "that the patient had been vaccinated in or about 1833, and prostration almost bordering on death was the consequence."

In 1858, "on the 10th of February, at No. 3, Eliza-

beth Cottages, Dalston, in the Hackney District, the daughter of a laceman, aged 3 months, erysipelas after vaccination (3 days), Pneumonia (4 days)."—Registrar General's Reports. † death

No Coroner's inquest was held on the body of that infant, but had that child been inoculated with small-pox, the law would have held the inoculator guilty of "manslaughter."

It would be doing good service if some philanthropic Member of Parliament would move for a return of the mortality resulting from vaccination since 1853, the year in which the Compulsory Vaccination Act was passed.

Not many days since, a poor woman, with tears in her eyes, came to the Author, anxiously enquiring whether the Bill now before Parliament was likely to pass. She stated that she had three children, all very healthy, born of healthy parents. One was vaccinated: its health was so affected by the vaccination that it became the subject of a loathsome disease, and *died*. The other two are living and healthy; they have not been vaccinated. The mother said that *she would rather die than submit her children to vaccination.* Can any one be surprised at the determination of the fond mother, whose maternal love prompts such resolute resistance to a *Compulsory Vaccination Bill?*

In the year 1807, Mr. Birch, who was Surgeon Extraordinary to the then Prince of Wales, and Surgeon to St. Thomas's Hospital, published a volume from which the following paragraphs are extracted :—

"Besides the many cases of failure in vaccination that have fallen under my own knowledge, I have authentic proofs of similar instances in various parts of the country, and I learn that, from the Reports both of the Royal Jennerian, and of the original Vaccine Institution, after the most perfect vaccination some of their experiments have failed."

In answer to the question sent by the College of Surgeons, "Have any bad effects occurred in your experience in consequence of vaccination, and if so, what were they?" Mr. Birch replied, "I have known several bad effects occur in consequence of vaccination. The case of Rebecca Latchfield, who lost the sight of one eye this year, is published. She is not yet well. . . . . I have also seen more than two cases similar to that of Jowles, in which the face has been principally attacked. By some vaccinators those eruptions were called scrofula, but how can this be reconciled with the positive assurance of a justly celebrated surgeon, on which Parliament implicitly

relied, 'that neither scrofula nor any other disease was excited by vaccination.'

"I have information from Hertford of five cases wherein natural small-pox has occurred, *in four of which the patients died.*

"In Lambeth Workhouse also, several died of small-pox subsequent to vaccination."

In the Registrar General's Reports, No. 10, vol. xv., for the week ending 11th March, 1854, we find that, "A grocer died in South Street, Chelsea, at the age of 50 years, of 'confluent small-pox' (14 days). He had been vaccinated when one year old." In No. 45, vol. xiii., we read, "In the sub-district of Haggerstone West, at 46, Essex Street, on the 1st of November, the daughter of a bricklayer, aged five years, died of 'variola confluens' (nine days), vaccinated with effect when six months old, marks perfect." Mr. Bowring mentions that "four out of a family of seven persons have been attacked, and the survivors are still suffering under the disease. All were vaccinated between the ages of four and six months; the cicatrices still perfect." He also records a death from small-pox without vaccination, and adds, "a prejudice against vaccination, of which this is another instance, is gaining ground in my district." It would appear that by a

prejudice Mr. Bowring must mean an unfavourable opinion, founded on experience. To proceed: in No. 41, vol. xiii., we find that "At 82, Earl Street, Lisson Grove, the daughter of a bottle merchant, aged one year, died from 'confluent small pox (14 days), vaccinated seven days previously.' The medical certificate adds, 'vaccinated on the 23rd of September, in two points on each arm. Small-pox first showed on the skin on the 30th. Both diseases progressed in a modified form for five days, when the child fell into a typhoid state.'" In this case, small-pox and cow-pox were co-existent. Which of them killed the patient? The number for the week ending 25th March, 1854, records another instance of the failure of vaccination to protect. "On the 17th March, the son of an Ostler died, aged six years, of small-pox (five days), vaccinated."

The Return, No. 14, vol. xv., for the week ending April 8, 1854, furnishes similar evidence:—"Six deaths occurred from small-pox; three of these, of which the following are the particulars, in the small-pox hospital.

"On the 31st of March, a boy, aged 10 years, from Holborn Union; small-pox, confluent (12 days), unprotected.

"On 1st April, a boy from Somers Town, aged 5 years, small-pox, confluent, modified (9 days). He

had been vaccinated at the age of four months; one cicatrix.

"On 7th April, the wife of a labourer, from Lambeth, aged 22 years; small-pox, confluent, unmodified (8 days); vaccinated in infancy, in Suffolk; two good cicatrices."

In the Quarterly Return, No. 20, 1853, at p. 42, we find:—"Chorlton, Hulme. The mortality of last quarter has been heavy, 22 deaths have occurred from scarlatina, 16 from hooping cough, and 7 from small-pox; 5 members of one family suffered from the last disease most severely, the father and 4 children. *They had all been previously vaccinated, and, as reported, with success. Two died;* and a boy, who had not only been vaccinated, but previously had the small-pox, and was very much disfigured, was one of the victims. This manifests a very strong predisposition in some families for certain diseases."

In No. 17, under the head of Taunton, the following appears:—

"There has been one death from small-pox, that of a male, 20 years of age, vaccinated in childhood." . . .

"In Ratcliff, at No. 2, Devonport Street, on the 6th of April, the son of a coal merchant, aged three months, died of 'erysipelas all over the body (one day),

succeeding vaccination, which was considered to be fine.'"

"In Mile End New Town, at No. 1, George Street, on the 17th of July, the daughter of a carman, aged three months, 'erysipelas after vaccination (three weeks), convulsions (twenty-four hours).'"

"In the south sub-district of St. Giles, at No. 8, Parker Street, on 13th April, the daughter of a mason, aged one month, 'irregular vaccination, when a fortnight old.'"

"At the 'Cock and Castle,' Kingsland, on the 1st May, the son of a licensed victualler, aged four months died of 'vaccination; inflammation of the cellular tissue of arm and thorax.' In Haggerston East, at 54, Union Street, on the 1st of May, the son of a hotpresser, aged four months, died of gangrene after vaccination (14 days)."—*Weekly Return*, for week ending 6th May, 1854.

In 1858 a great number of petitions were presented to the House of Commons by parents who prayed for the repeal of compulsory vaccination acts; and the prayers of those petitions were accompanied by details of cases of death and disease following vaccination.

Dr. William Collins, a public vaccinator of extensive

experience, in a paper read by him before the Sanitary Committee of St. Pancras, upon vaccination, re-vaccination, etc., June 9th, 1863, stated that:—

"In 1847-8 and in 1851-2 I had every opportunity, as public vaccinator to one of the largest parishes of the metropolis, of watching the progress of small-pox among the vaccinated and the unvaccinated, independent of which, numerous cases of clandestine inoculation with small-pox came under my notice. About two-thirds of these inoculated cases had been successfully vaccinated. I watched the progress of the disease with more than ordinary care and anxiety, and found when the children were strong and healthy, both among the vaccinated and the unvaccinated, that the disease was somewhat modified in both patients; but those who were exposed to the *more concentrated sources of the infection* and of delicate constitutions or scrofulous habit shared a very different fate, *especially those who had been previously debilitated by vaccination*, several of whom had confluent small-pox in its most malignant form. Some persons, particularly those who were physically strong, accustomed to pure air, cleanliness, and moderation in all things, I found unsusceptible to the vaccine disease. A well-known pugilist (Tom Sayers), who was in training for some professional

engagement, came to me to be vaccinated, the small-pox having broken out where he was lodging; he had not been vaccinated in infancy, and never had the small-pox. I performed the operation on him and two others at the same time; at the expiration of a week I saw him again with the other cases, both of whom had taken, but I found little or no signs on this distinguished individual. I then vaccinated him and three children with matter direct from the cow, saw him a week afterwards with no better result. He became dissatisfied, and was immediately afterwards inoculated with the small-pox, and that too failed, thus proving that he was constitutionally strong, and capable of resisting disease altogether. With respect to the children, the eldest, a most lively child, with large blue eyes and flaxen hair, suffered severely after vaccination; in fact, for more than ten days her life was despaired of. On the third day after the operation, the arm and the glands in the axilla began to swell; delirium and low typhoid fever ensued for more than a fortnight, when the arm began to slough, and the bone was nearly denuded of flesh. Change of air was recommended, and the patient was taken to Margate, returned at the expiration of six months with some ugly looking scars, and the arm useless. . . . If I were to depict one-

third of the numerous unhappy victims that I have seen laid prostrate by vaccination, 'I could a tale unfold whose lightest word would harrow up your souls.' . . . I have given you the result of my experience, and after careful examination of all the facts, I am bound to admit that I have no faith in vaccination, nay, I look on it with the greatest disgust, and firmly believe that it is often the medium of conveying many filthy and loathsome diseases from one child to another, and it is no protection from small-pox. Indeed, I consider we are now living in the Jennerian Epoch for the slaughter of the *Innocents*, and the unthinking portion of the population"

In the *Lancet*, November 11th, 1854, we read, that "So widely extended is the dread that, along with the prophylactic remedy something else may be inoculated, lest the germ of future diseases may be planted, that few medical practitioners would care to vaccinate their own children from a source of the purity of which they were not well assured."

Professor Bartlett, lecturer on the theory and practice of medicine in the University of New York, quoted in his remarks on the causes of pulmonary consumption (in the session of 1850-51), on the authority of two French writers, Bartlez and Rhilliet, the following facts in regard

to vaccination :—" In 208 children who had been vaccinated, 138 died of tubercular consumption, and 70 of other maladies; in 95 who were not vaccinated, 30 only died of tubercular consumption, and 65 of other diseases."

The *Lancet* (November 16th, 1861,) contained an account of deaths caused by syphilitic inoculation with vaccine lymph. Thirty children were vaccinated from a little girl, six punctures being made on each arm, and the little girl had been operated on from another child, who had been vaccinated with lymph preserved between two plates of glass, which had been obtained from the medical authorities. All these children were inoculated with syphilis. This was in 1866. And in the *Lancet* of November 16th, 1861, there was an account of the inoculation of 46 children with the same disease, conveyed by means of vaccination. These cases were all well authenticated.

The author, having shown how danger to life is incurred by vaccination, immediately or remotely, and that danger to health is often incurred by the introduction into the system of the germs of other diseases, with the vaccine lymph, passes on now to consider the effects of vaccination in inducing a change in the functions of the skin.

The miscroscope has been the means of revealing to physiologists the structure and functions of the tissues and materials of which the skin is composed. An ordinarily-sized man possesses twenty-eight miles of tubing in his skin, through which a constant exudation is taking place, an interchange between the atmosphere and the contained structures. Let these millions of pores be closed by disease, or let the skin be coated with varnish, and the man will soon perish. Let fever attack him, and the action of the skin be arrested, death will speedily ensue if the action of the skin be not restored. Now, what change is produced by vaccination? There can be no doubt that some artificial change is produced, and so long as it is maintained the patient is in an abnormal condition. It may be, therefore, a blessing that the influence of vaccination dies out in a few years.

The celebrated John Hunter said, that "Every animal may be said to have natural tendencies to morbid actions, which may be considered as predisposing causes, and these may be called into action whenever the exciting cause takes place." If, then, the function of the skin be to give exit to morbid matters from the body, how important is it that this function should not be interfered with by artificial

means. That vaccination does interfere with the natural action of the skin, may reasonably be inferred from the fact that erysipelas and other acute and chronic skin diseases frequently supervene. And it is not improbable that when vaccination prevents the development of small-pox, the direction of the *materies morbi* is changed, so that instead of the body being relieved by and through the skin, of morbid matters, deposits are thrown down on internal organs; and the development of phthisis at puberty, or even earlier, may be produced and accounted for in this manner. This hypothesis will account for the terrible increase of the mortality from chest diseases in the thirty years last past. In the years 1838 to 1842, both inclusive, the average annual mortality from phthisis and bronchitis was, in round numbers, 61,000. In the five years 1847-51, it amounted to 65,750. In the five years 1852-56, to 69,250. In the five years 1857-61, to 79,530. And in the five years 1861-65, to 86,336.*

The author is indebted to Dr. Farr for the following valuable and carefully compiled statistics of the pro-

* For the years 1843 to 1846 the classification of the causes of death published was incomplete.

portion of deaths to 1,000,000 persons living in the year 1865 in England:—

Small-pox	309
Measles	412
Scarlatina and Diphtheria	1,052
Whooping-cough	416
Typhus and Infantile fever	1,109
Phthisis	2,587
Bronchitis	1,754
Pneumonia	1,083
Convulsions	1,287
All Causes	23,387

In the year 1865 the highest mortality in England was due to phthisis, bronchitis being next in order, the mortality from chest diseases—including phthisis, bronchitis, pneumonia, and whooping-cough—amounted to the proportion of 5,840 for one million persons living, the mortality from all causes being in the proportion of 23,387 for one million living; a comparison of these figures showing that about one in four deaths in England were due to chest disease. Such a frightful mortality should engage the attention of medical statisticians, and lead to an inquiry into the causes which are productive of such a waste of life.*

* Appalling, indeed, is the fact stated by H. C. Harris, Esq., Surgeon to the Orphan Working School, Haverstock Hill, "that 85 per cent.

It is worthy of remark that when small-pox is prevalent, the mortality from whooping-cough is low; and that when small-pox is in abeyance, the mortality from whooping-cough is high. When small-pox is in the ascendant, a great outcry is made about the dreadful mortality produced by it; yet, strange to say, the terrible fatality of chest disease, which completely casts into the shade the mortality from small-pox passes unnoticed.

The following facts are adduced in support of the theory that small-pox increases the chance of longevity in those who are attacked by it and recover:—

The widow of a tradesman presented herself to the author for examination in order that an assurance on

of the inmates of that Asylum are made orphans by means of Phthisis in one or both parents." (Blue-book, p. 149.) Of the illnesses which caused death or removal of the children, in 36 cases, were—phthisis, 10; Scarlatina, 4; Inflammation, 5; nervous diseases, 2.

In the Royal Freemasons' School for female children, Wandsworth, there are 65 children, aged from 7 to 15. No child is eligible for election unless vaccinated. What is the result? "The number of children who died in the fifteen years, 1842-56, was 25; of these no less than 12 died of consumption, 5 of scrofula, 3 of effusion on the brain, 2 of cholera, 2 of heart-disease, and 1 of fever. Thus, one-half died of consumption." (Blue-book, p. 151.)

It is related that Jenner's first vaccinated patient, Phipps, and also his own eldest son, whom he swine-poxed, subsequently died of consumption.

her life might be effected. Her family history was thus stated by her:—"I am 40 years of age. I have a brother living who is 44. My brother and I are the only survivors of a family of ten children. Five of the eight who are dead, died in childhood, two at puberty, and one, at eighteen years of age, of *consumption.* My brother and I had small-pox; we had neither of us been vaccinated, for it was not much in fashion in the country when we were children, but the eight younger ones born after me were all vaccinated, and my poor mother always attributed their deaths to vaccination; *there had been no consumption in the family until then.*"

Was consumption introduced into this family by vaccination, or did the process of vaccination, by preventing the elimination of vitiated matters through the skin—a process of purification necessitated by the prevalence of fever, or of small pox—produce a deteriorated condition of health, and so induce phthisis?

Is not the blood contaminated by vaccination?

Hunter, in his dissertation on the blood, says, "the blood has been supposed to be a passive inanimate body, deriving its motion from the action of the heart. Some, in considering this fluid, have only attended to its changes out of the circulation; others to its chemical analysis; and others to its appearance under the

microscope; *but its chemical analysis and form explain nothing.* Blood is not simply animal matter, but possesses that arrangement on which the living principle depends. . . . Whatever is taken into the system for supply must undergo these changes, viz., animalisation, and vivification. . . . The blood I conceive to be alive, as it carries life to every part of the body.

"Any extraneous substance introduced into the blood modifies the vitalized or living fluid. The introduction by inoculation of mineral poisons, or vegetable poisons, is hazardous, and, in certain quantities, may be destructive; but *the introduction of animal products from another living body, be it a man, a cow, or even the ass, is infinitely more pernicious because allied to it in being vitalized.*"

"Lymph" by being preserved in points or between glasses does not lose its vitality—it is latent and germinal, only requiring to be called into activity by entering into combination with living structures at a vital temperature. Therefore, inoculation, by either variolous matter, or vaccine lymph, either matter derived from a diseased horse, or cow,—the inoculation of the living organism by such animal products entails consequences more or less injurious, in proportion to the

strength of the patient's constitution, and to his susceptibility. It has been previously proved by French statistics (see note to p. 28), that the mortality from fevers has been six times greater in the vaccinated than in the unvaccinated.

Having considered the value of vaccination, and demonstrated its worthlessness, as at present performed, as a preventive of small-pox; and having also considered and proved by indisputable statistics, the manifold dangers to life and health incurred by the recipient, the author proposes now to discuss some of the arguments which have been adduced in favour of vaccination.

The well-founded "prejudices" of the mass of the people have rendered the universal adoption and enforcement of vaccination difficult. Indeed, it has been stated that in some districts of England not more than one-half of the population have yet been vaccinated. In a recent debate in the House of Commons (June 14th, 1867), Lord Robert Montagu stated, that in elementary and workhouse schools, 30 to 40 per cent. of the children had been found to be unvaccinated, and in some cases the proportion of these "unprotected" ones was 40 to 50 per cent. At Penn, in Buckinghamshire, the per-centage of unvaccinated children was 55½

per cent. As to the quality of the vaccinations, of 127 districts visited by Dr. Sanderson, there were 21 in in which the bad vaccinations were from 30 to 62 per cent. In only 30 districts were as many as 50 per cent. of the children "really protected from small-pox."

Lord Robert Montagu urged the House to consider the necessity for a more stringent Vaccination Act, and stated that in the three years 1863-4-5, twenty thousand deaths had occurred from small-pox. It did not occur to his lordship to compare the mortality with that of the three years previous to 1863, and also to compare the mortality from small pox with that of whooping-cough.

The following table will show how little control over the mortality from epidemics can be arrived at by Parliamentary legislation :—

Deaths in England.						
	1860.	1861.	1862.	1863.	1864.	1865.
Small-pox	2,749	1,320	1,628	5,964	7,684	6,411
Whooping-cough ..	8,555	12,309	12,272	11,275	8,570	8,647
Totals	11,304	13,629	13,900	17,239	16,254	15,058

In 1861, when the mortality from small-pox fell from 2,749, in the previous year, to 1,320, that of whooping-cough rose from 8,555 to 12,309; the total mortality from both affections being 2,325 *greater*, when the mortality from small-pox was 1,429 *less*.

In 1864, when the mortality from small-pox rose to 7,684, that from whooping-cough diminished to 8,570 from 11,275 in 1863; the total mortality from both affections being 985 *less* when small-pox was more fatal.

Parliament might as effectively pass an Act to regulate the rise and fall of the waves of the Atlantic Ocean, as to seek to control the mortality from small-pox by a Compulsory Vaccination Act.

The original causes of epidemics are unknown, although the exciting causes may be understood, and in great measure prevented. Dr. Farr, in a letter to the Registrar-General in 1840, very sensibly remarks, that "Epidemics appear to be generated at intervals in unhealthy places, spread, go through a regular course, and decline; but of the cause of their evolutions, no more is known than of the periodical paroxysms of ague. The body, in its diseases as well as in its functions, observes a principle of periodicity; its elements pass through prescribed cycles of changes,

and the diseases of nations are subject to similar variations . . . . "Amidst the apparent irregularities of small-pox, and its eruptions all over the kingdom, it was governed in its progress by *certain general laws.*"

Dr. Farr has so well and ably illustrated these laws in his letter, that all who are interested in the subject should read it. It is to be found in vol. ii. of the Registrar-General's Reports, 1840.

Moses attributed the epidemics or plague of boils, etc., which fell on the Egyptians, directly to Divine judgment, as well as nine other plagues which are recorded in the Pentateuch. Moses spoke of physical instruments of God's will, and we can well understand that some at least of the instrumentalities were consistent with known physical laws, among which are *atmospheric changes.* In the book of Deuteronomy it is recorded that the children of Israel were to be smitten with mildew.

Rhazes wrote of "occult dispositions of the air, which necessarily cause those diseases (small-pox and measles), and predispose bodies to them."

Hecker, at the commencement of his treatise on the "black death" says, "That Omnipotence which has called the world with all its living creatures into one

animated being, especially reveals himself in the desolation of great pestilences. The powers of creation come into violent collision; the sultry dryness of the atmosphere, the subterranean thunders, the mist of overflowing waters, are the harbingers of destruction. Nature is not satisfied with the ordinary alternations of life and death, and the destroying angel waves over man and beast his flaming sword."

History tells us that in 1572, at the Assizes at Oxford, a pestilential vapour suddenly filled the Judges' court, whereby the judge, several noblemen, and three hundred others died within three days.

"On the island of Cyprus, before the earthquake, a pestiferous wind spread so poisonous an odour, that many, being overpowered by it, fell down suddenly and expired in dreadful agonies. A thick stinking mist advanced from the east, and spread itself over Italy."

Dr. Patrick Russell, writing of the plague at Aleppo, stated that "The distemper seems to be extinguished by some cause or causes equally unknown as those which concurred to render it more or less epidemic in its advance and at its height. . . . It declines and revives in certain seasons, and at length, without the interference of human aid, ceases entirely."

In the Irish famine fever of our own time, and in the

visitations of Asiatic cholera, it is remarkable that the epidemics declined, and almost suddenly ceased, without the intervention of human aid.

So is it with small-pox. It follows the same law and course as do other epidemics. The ultimate law governing the rise and fall of epidemics has never been discovered. Some believe that a perturbation of the electricity of the earth, either atmospheric or telluric, has much to do with the extraordinary outbreaks of small-pox, scarlatina, etc., and some such influence has certainly been intimately connected with all the different pestilences which have visited the human race.

"The black death was preceded and accompanied by extraordinary convulsions of nature. Earthquakes were frequent just before the outbreak, and volcanoes assumed unwonted activity. *The air over the sea was infected as well as that over the land;* and vessels were seen drifting about the ocean, their crews having perished to the last man."—*Cornhill Magazine*, May, 1865.

Influenza, in its outbreaks, has always been connected with peculiar and sudden atmospheric changes and conditions.

Ancient and modern astrologers have insisted that certain relative positions of the earth with the other

planets, which are of extraordinary occurrence, are the original, though not the proximate, causes of epidemics, causation taking place by and through the atmosphere. The astrologers deduce their aphorisms from the coincidences of the relative positions of the planets with the outbreak of epidemics. And be their deductions correct or erroneous, scientific or unscientific, certain it is that Lilly, an eminent astrologer in the seventeenth century, predicted the plague (and fire) of London fifteen years beforehand. In the present century, an eminent astrologer, who writes under the *nom de plume* of "*Zadkiel*," foretold with marvellous accuracy the outbreak of influenza in 1831; the pestilence in Constantinople and in Paris in 1832; cholera in the West Indies in 1850 (when one-fourth of the inhabitants of Jamaica were destroyed); the cattle plague of 1865; and the cholera in 1866—naming not only the period of the visitation, but also the locality affected.*

A very interesting volume entitled "Epidemics examined and explained," by John Grove, contains much valuable information on Epidemics, ancient and modern. Mr. Grove endeavours to prove that "living germs" are a source of disease, and his theory is so well

* See *Zadkiel's Almanac*, 1831, '32, '50, '65, '66.

sustained by facts adduced, that his book will take its place as a standard work on the subject of which it treats.

Whatever may be the *true cause* of small-pox, whatever the laws which govern its rise and fall, its mortality, its periodicity, it is certain that vaccination cannot claim to be the cause of its decline in the present century.

It is well known that during the last two hundred years diseases have diminished in severity, and in frequency of recurrence. It is also well known that diseases which raged periodically as epidemics, called "black death," plague, elephantiasis, leprosy, etc., have disappeared. Consequently the general mortality in proportion to the increase of population has greatly diminished.

Dr. Simon, in his letter on vaccination addressed to the General Board of Health, and dated May 9, 1857, adduced what he deemed to be evidence that vaccination has diminished the general mortality of England, and of those other countries wherein vaccination is adopted.

In combating the arguments of M. Carnot* (who

* Essai de Mortalité comparée avant et depuis l'introduction de la vaccine en France.

assumes, perhaps too readily, that the evils of depopulation and deterioration of race in France are the direct consequences of vaccination), Dr. Simon brings forward counter evidence from the French Academy of Medicine. The author leaves the two combatants to fight out their differences. Dr. Simon, however, has shown very satisfactorily that the death rate has diminished progressively during the last two hundred years. He quotes Dr. Greenhow, who has bestowed a considerable amount of labour on the subject, and publishes the following statistics:—

"Average annual death-rate in London, from all causes and at all ages, per ten thousand living, in

Years.	Death-rate.
1681—90	421
1746—55	355
1846—55	249

"You will notice that in the decennial period 1846-55, the general death rate per 10,000 of living population was 25 per cent. less than in the decennial period 1746-55, and 40 per cent. less than in the decennial period 1681-90.

"In the following table the general death-rates of London are given for seven different periods of time during more than two centuries. The first line (A)

shows for the period 1629-55 a general death-rate just double our present one. In the second line (B) it is seen that for the twenty years 1660-79, including the fatal one 1665 (the great plague), the rate was $3\frac{1}{5}$ times as great as it now is; and in the fourth line (D) it is shown that during ten years, 1771-80, towards the end of last century, when small-pox was fourteen or fifteen times as fatal as now, the general death-rate was still double.

"Average annual death-rates in London from all causes and at all ages:—

	Date.	Per 10,000 living.
A	1629-35	500
B	1660-79	800
C	1728-57	520
D	1771-80	500
E	1801-10	292
F	1831-35	320
G	1840-54	$248\frac{9}{10}$"

Nothing can be more fallacious than Dr. Simon's deductions. The philosophical inquirer after truth should be very careful to avoid "straining a point" to sustain a theory.

Dr. Simon cannot deny that the death-rate has progressively diminished, independently of vaccination.

He begins the second table, quoted above, with the year 1629; had he commenced with 1625, the figures would have been considerably altered, for in the latter year 35,417 persons died of plague in London; see p. 95. Dr. Simon lays great stress on the circumstance that in the decade 1771-80, "when small-pox was fourteen or fifteen times as fatal as now, the general rate was double," leaving the reader to infer that the differences in the death-rate were due to the prevalence or decadence of small-pox. The fallacy of this deduction will be seen at a glance at the following statistics, derived from the identical table of Dr. Greenhow, from which Dr. Simon's foregoing quotations are extracted :—

General and differential Annual Death-rates in London per 100,000 *living, at seven different periods during* 226 *years*—1629 *to* 1854.

Causes of Death.	Bills of Mortality.						Registration Returns.
	1629-35.	1660-79.	1728-57.	1771-80.	1801-10.	1831-5.	1840-54.
Small Pox ..	189	417	426	502	204	83	40
Measles	16	47	37	48	94	86	58
Scarlet Fever.	?	?	?	?	?	53	90
Fever	636	785	785	621	264	111	101
Spotted Fever	45	90					
Plague	125	1225	—	—	—	—	—
Dysentery ..	221	894	50	17	1	1	9
Surfeit or Cholera..	63	148	1	?	?	135	78
Old Age	370	388	415	324	241	357	130
All Causes ..	5000	8000	5200	5000	2920	3200	2488

It is evident, on Dr. Simon's showing, that the general death-rate diminished, *not because small-pox had been superseded by vaccination*, but because of the cessation of plague, the decadence of spotted fever, and of dysentery.*

Let the reader cast his eye along the first, fourth, fifth and sixth lines of the foregoing table, and he will see that the death rate from small-pox diminished from 502 in the decade 1771-80, to 204 in the decade 1801-10. Fever decreased from 621 to 264 in those respective decades. And the mortality from small-pox and fever diminished one half, while, in the same periods, the death-rate of measles *doubled.*

Plague ceased to exist towards the end of the seventeenth century, and dysentery diminished in

* "That death-rate of 8 per cent., the average for London during the twenty years succeeding the Restoration, may have been in Mr. Macaulay's mind when he wrote a beautiful passage in his History (end of Chapter III.), criticising the delusion 'which leads men to over-rate the happiness of preceding generations. It is now,' he says, 'the fashion to place the golden age of England in times when noblemen were destitute of comforts the want of which would be intolerable to a modern footman; when farmers and shopkeepers breakfasted on loaves the very sight of which would raise a riot in a modern workhouse, *when men died faster in the purest country air than they now die in the most pestilential lanes of our towns, and when men died in the lanes of our towns faster than they now die on the coast of Guinea.*'"

fatality from 894 to 50, and then, like plague, died out.

Had vaccination anything to do with the diminution of the death-rate?

Supposing that the mortality from small-pox decreased from 502 in the decade 1771-80 to 204 in the decade 1801-10, because of the introduction of vaccination, how is it that nearly two centuries before its introduction, the death-rate of small-pox was only 189—as in the first column of the foregoing table?

If Dr. Simon claims for vaccination the credit of the reduction of the death-rate of small-pox, what reduced the death-rate of plague from 1225 to 0? What reduced the death-rate of dysentery from 894 to 50, then to 17, then to 1? Had any "preventative" like vaccination been introduced in 1666 for the plague, these figures would have been brought forward to prove that the extinction of plague was due to that "preventative," and the fire of London would not have been credited with the extinction of that disease, except by those who had been blinded by prejudice in favour of the "preventative."

It is worthy of remark that the death-rate from "old age" has diminished since the introduction of vaccination.

The Epidemiological Society adopted and published, in 1864, a "Report of the Small-pox and Vaccination Committee."*

In that report it is stated that 3240 persons die, on an average, from small-pox, annually, in England; and in the metropolis the average annual death rate is more than 700. "That there is, especially at epidemic periods, a considerable mortality among vaccinated adults. In the year 1863, there died in the small-pox hospital 123 persons who had been vaccinated."

Now the correct average of 24 years of deaths from small-pox in England is 5434.

The report referred to contains the following table, compiled for the purpose of showing that legislative measures to provide and enforce vaccination, have been effective in diminishing the mortality from small-pox; the fallacy of the assertion is evident.

The year 1838 was the most fatal year, from small-pox, in the present century.† The table is commenced with that year, *while former years are omitted in which the death-rate from small-pox was low* (for it had not raged with violence since 1825). Hence the average mortality is swelled to 11,944. So much for the first division.

* Transactions of the Epidemiological Society, vol. ii., part 1.

† From 1796 to 1825 there was not any epidemic of small-pox in London.

Tables showing the annual mortality from small-pox in England in three periods: (1) *before the enactment of any vaccination laws;* (2) *after vaccination was provided gratuitously, but was not obligatory;* and (3) *since vaccination has been obligatory.* (4) has been added by the author of this essay.

Division 1. Before the enactment of any Vaccination Laws.		Division 2. Vaccination provided gratuitously, but not obligatory.		Division 3. Vaccination obligatory.		Division 4. Vaccination obligatory.	
Year.	No. of Deaths.	Year.	No. of Deaths.	Year.	No. of Deaths.	Year.	No. of Deaths.
1838	16,268	1841	6,368	1854	2,808	1862	1,628
1839	9,131	1842	2,715	1855	2,525	1863	5,964
1840	10,434	1847	4,226	1856	2,277	1864	7,684
		1848	6,903	1857	3,936	1865	6,411
		1849	4,645	1858	6,460		
		1850	4,666	1859	3,848		
		1851	6,997	1860	2,749		
		1852	7,320	1861	1,320		
		1853	3,151				
Average Annual Deaths.	11,944	———	5,221	———	3,240	———	5,421

N.B.—No Returns were published for the years 1843-4-5-6. 1844 was an epidemic year.

The third division is supposed to prove that the decrease of the mortality from small-pox is due to compulsory vaccination. It must be remembered, however, that in the second division there are four epidemic visitations included, while in the third division there is only one. Moreover, if the years 1862-3-4-5, be added to the third division, the average annual deaths for the period 1854-65 would amount to 3,967—the mortality from small-pox in the years 1862-3-4-5, having been 1,628; 5,964; 7,684; and 6,411 respectively.

The Committee attribute the diminished mortality from small-pox to compulsory vaccination, closing their account with 1861, which is the year of lowest mortality in their table. How will the Committee account for the subsequent increase of mortality from small-pox *under the same compulsory law?*

In 1863 it amounted to 5,964; and it rose to 7,684 in 1864; *which was the most fatal year in regard to small-pox for twenty-four years.* If vaccination be really "protective," and if the gradual diminution of the mortality from small-pox down to the year 1861 was consequent on vaccination having been made compulsory, how and why was the mortality of 1864 from that disease 6,364 in excess of the mortality of 1861?

How is it that the addition of four subsequent years to the table compiled by the Committee makes such a material difference (an increase of 727), in the average annual mortality since vaccination was made compulsory? The average of the four years added to the table exceeds the average of the nine years in the second division. Can the Committee, the Epidemiological Society, Dr. Simon, or any advocate of the present system of vaccination, harmonize these discrepancies? The Author has compiled the following tables* from the published Reports of the Registrar General for the purpose of showing the relative mortality of allied diseases, and the fluctuations of the mortality from small-pox. If this mortality be compared with that of the other diseases given in the tables, the existence of a law of vicarious mortality will be apparent. Take, for instance, the year 1861. Small-pox was fatal in 1,320 cases, having *fallen* from 2,749 in 1860. But whooping-cough *rose* to 12,309 in 1861, from 8,555 in the previous year. The causes of death are not separately given in the reports for 1843-4-5-6, and are necessarily omitted from the following tables.

* It will be necessary to consider the increase of population in reading these tables. In 1831, the population of England was 15,912,000. In 1851, 17,927,609. In 1861, 20,066,224.

Causes of Death in England.	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
Small-pox	16,268	9,131	10,434	6,368	2,715	?	?	?	?	4,227
Measles	6,514	10,937	9,326	6,894	8,742	?	?	?	?	8,690
Scarlatina	5,802	10,325	19,816	14,161	12,807	?	?	?	?	14,697
Whooping-cough	9,107	8,165	6,132	8,099	8,091	?	?	?	?	9,260
Typhus	18,775	15,666	17,177	14,846	16,201	?	?	?	?	30,320
Phthisis	59,025	59,559	59,923	59,592	59,291	?	?	?	?	53,317
Bronchitis	2,067	1,663	2,053	2,267	2,627	?	?	?	?	16,499
Pneumonia	17,999	18,151	18,582	17,977	19,036	?	?	?	?	23,447
Convulsions	26,047	25,408	25,770	24,563	25,488	?	?	?	?	23,972
All Causes	342,529	338,979	359,561	343,847	349,159	?	?	?	?	420,977

Causes of Death in England.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Small-pox	6,903	4,645	4,666	6,997	7,320	3,151	2,808	2,525	2,277	3,936
Measles	6,867	5,464	7,080	9,370	5,846	4,895	9,277	7,354	7,124	5,969
Scarlatina	20,502	13,111	13,370	13,634	18,887	15,700	18,528	17,314	14,160	14,229
Whooping-cough	6,862	9,615	7,770	7,905	8,022	11,200	9,770	10,185	9,225	10,138
Typhus	21,406	17,902	14,296	17,121	17,845	18,013	18,332	16,032	15,398	18,249
Phthisis	51,662	50,298	46,614	49,166	50,594	54,918	51,284	52,290	48,950	50,106
Bronchitis	14,472	14,825	14,612	17,294	17,073	22,391	20,062	27,182	21,528	25,588
Pneumonia	21,868	21,177	20,303	22,001	21,421	24,098	23,523	26,052	22,653	23,457
Convulsions	22,796	23,703	22,928	24,592	24,558	24,796	24,579	24,917	23,946	24,532
All causes	398,533	440,839	368,602	395,396	407,135	421,097	437,905	425,703	390,506	419,815

Causes of Death in England.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.
Small-pox	6,460	3,848	2,749	1,320	1,628	5,964	7,684	6,411	
Measles.....	9,271	9,548	9,557	9,055	9,800	11,349	8,323	8,562	
Scarlatina.....	30,317	19,907	9,681	9,077	14,834	30,475	29,700	17,700	
Whooping-cough	11,648	8,976	8,555	12,309	12,272	11,275	8,570	8,647	
Typhus.....	17,883	15,877	13,012	15,440	18,721	18,017	20,106	23,034	
Phthisis	50,442	50,149	51,024	51,931	50,962	51,072	53,046	53,734	
Bronchitis	29,093	25,998	32,347	30,986	32,526	32,025	38,969	36,428	
Pneumonia	26,486	24,514	25,264	22,914	23,713	24,181	24,470	22,489	
Convulsions	25,488	25,954	25,205	25,423	25,286	26,008	26,382	26,722	
All Causes	449,656	440,781	422,721	435,141	436,566	473,837	495,531	490,909	

In the following table the mortality in proportion to one million persons living is given. It will be seen that as small-pox diminished, measles, scarlatina, and whooping-cough increased in fatality. It should be also observed that the mortality from small-pox is smaller than any of its kindred diseases—that of chest-diseases being 1 in 4 of the mortality from all causes, while the proportion of the mortality of small-pox is 1 in 77 :—

Annual Deaths to 1,000,000 *living* (*England*).

Causes of Death.	15 Years. 1850–64.	5 Years. 1850–54.	5 Years. 1855–59.	5 Years. 1860–64.	1865.
Small-pox	222·9	279·0	199·0	190·6	309
Measles	432·1	406·0	412·0	478·2	412
Scarlatina & Diphtheria	1061·4	890·8	1103·6	925·6 264·2	852 200
Whooping-cough	516·9	496·6	527·0	527·0	416
Typhus (and Infantile Fever)..	913·1	995·0	897·6	846·6	1109
Phthisis	2675·1	2811·2	2647·6	2566·4	2587
Bronchitis	1344·4	1016·4	1358·6	1658·2	1754
Pneumonia.....	1244·1	1239·0	1294·2	1199·2	1083
Convulsions	1313·3	1352·6	1311·2	1276·0	1287
All Causes	22190·2	22299·3	22022·6	22248·7	23387

Dr. Simon in his letter to the Board of Health (*Blue-book*, 1857), has attempted to prove that in Sweden, "that well-vaccinated country," the general death-rate of the population has diminished, and that this diminution is due to vaccination.

Dr. Simon has stated his case with great ingenuity, but unfortunately his statistics will not stand the test of analysis.

The annexed table is a fac-simile of one given by Dr. Simon, p. xlvi. of Blue-book, 1857:—

Average Annual Death-rate in Sweden from all causes and at all ages.

Date.	Per 10,000 living.
1755-75	289
1766-95	268
1821-40	233
1841-50	205

N.B.—The *annual* small-pox death-rate during the period 1841-50 averaged less than the *weekly* death-rate from *small-pox* and *measles* during the period 1755-75.

The author desires to direct attention first to Dr. Simon's "N.B.," in which he contrasts the mortality

from small-pox *alone* in 1841-50, with that of small-pox and *measles* combined, in 1755-75. Now, any deduction from such contrast is unfair, because (1st.) Dr. Simon has given no return of mortality from measles in the latter period, while it is included in the former. (2nd.) Dr. Simon takes the *ten* years in the present century and contrasts their mortality with that of *twenty* years of the last century. (3rd.) *Dr. Simon has selected the years of lowest mortality from small-pox in the present century.*

In the statistical tables given at p. 186 of the Blue-book, entitled, —"Population, births, and deaths in Sweden," commencing with the year 1749, the returns of mortality from small-pox and measles are given together, but from 1774 small-pox returns are given alone (there being no column for measles); but another column contains the mortality from typhus and typhoid-fever up to 1830, when these returns are also discontinued.

Had Dr. Simon taken the last twenty years in this table, viz., from 1833 to 1852, he would have found the average annual deaths from small-pox to be 488, instead of 211, which is the average of the ten years 1841-50 (see the years marked with an asterisk).

The following is the table referred to:—

Deaths from Small-pox in Sweden, 1821 *to* 1852.			
Date.	Deaths.	Date.	Deaths.
1821	37	1837	361
1822	11	1838	1,805
1823	39	1839	1,934
1824	618	1840	650
1825	1,243	1841	237*
1826	625	1842	58*
1827	600	1843	9*
1828	257	1844	6*
1829	53	1845	6*
1830	104	1846	2*
1831	612	1847	13*
1832	622	1848	71*
1833	1,145	1849	341*
1834	1,049	1850	1,376*
1835	445	1851	2,488
1836	138	1852	1,534

* Dr. Simon's selected years.

The tables given by Dr. Simon are so incomplete that

a complete comparison of the mortality from small-pox, measles, and other diseases cannot be made. The total mortality from all causes is, however, given for the years 1749 to 1855; and the mortality from fever is given from 1749 to 1830.

Dr. Simon states that the general mortality has diminished with the diminution of small-pox, and that this is the direct result of vaccination. This "well-vaccinated country of Sweden" is, however, no exception, in its mortality, to the law the author has laid down in a former part of this essay. For instance, in the year 1829 the mortality from small-pox was 53—the mortality from all causes, 82,719. Four years later, in 1833, small-pox mortality *rose* to 1,145; the mortality from all causes fell to 63,947—18,772 *less* than when the small-pox mortality was *low*. Take two later years. In 1846 the mortality from small-pox was only 2; the mortality from all causes, 72,683. In 1851 small-pox *rose* to 2,488; and the mortality from all causes *fell* to 72,506—127 *less* than when the small-pox killed only 2 persons, notwithstanding that the population had increased 173,000.

In this way instances could be multiplied in which the law of vicarious mortality is manifest in the fluctuations of mortality from epidemics.

The law of compensation is borne out in the "well-vaccinated country of Sweden"—for instance, in 1825, when small-pox killed 1,243 persons, typhus killed 3,962. In 1829 when small-pox was fatal in only 53 cases, typhus was fatal in 9,264. The author of this essay commends these facts to Dr. Simon, and trusts that Dr. Simon will digest well the statistical food eliminated from his own table.

Given the whole causes of mortality in any country in Europe, and the author ventures to assert that the law which he has briefly elucidated, will be found to prevail—a law of nature which laws of parliament are powerless to control.

Undoubtedly the general mortality has diminished in the last hundred years, but this is certainly not due to the adoption of vaccination, as before stated and proved.

In Sweden the mortality from small-pox advanced steadily from 2 in 1846 to 13 in 1847; 71 in 1848; 341 in 1849; 1,376 in 1850; 2,488 in 1851; and to 1,534 in 1852; notwithstanding that Sweden is so "well-vaccinated."

The law of vicarious mortality is no novelty in epidemics. Two centuries since, when plague periodically afflicted England, a record was kept in London,

and in 1665 a volume was published by John Graunt, a Fellow of the Royal Society, giving the number of births and deaths yearly from 1604 to 1664. In the period 1604-11 there died of plague 14,752 persons; of all other diseases, 50,242; total, 64,994; the proportion of deaths from plague to deaths from all causes being 28 per cent. In the next period of eight years, 1612 to 1619, there died of plague 171 persons; of all other diseases 64,436; making a total of 64,517. In these two periods it is seen on comparison, that when plague destroyed 14,700 persons, the mortality was only 477 greater than in the second period when plague killed but 171 persons. If the years are taken separately, the fluctuations are very marked:—

Mortality from Plague—1604 *to* 1625.

Year.	Deaths.	Year.	Deaths.
1604	896	1615	37
1605	444	1616	9
1606	2,124	1617	6
1607	2,352	1618	18
1608	2,262	1619	9
1609	4,140	1620	21
1610	1,803	1621	11
1611	617	1622	16
1612	64	1623	17
1613	16	1624	11
1614	22	1625	35,417

Mortality from Plague (continued)—1626 *to* 1651.

Year.	Deaths.	Year.	Deaths.
1626	134	1639	314
1627	4	1640	1,450
1628	3	1641	1,375
1629	0	1642	1,274
1630	1,317	1643	996
1631	274	1644	1,412
1632	8	1645	1,871
1633	0	1646	2,635
1634	1	1647	3,507
1635	0	1648	611
1636	10,400	1649	67
1637	3,082	1650	15
1638	363	1651	23

John Graunt very wisely remarked that "a *true* account of the plague cannot be kept *without the account of other diseases.*"

Yet, in supporting the theory of vaccination, its advocates neglect to notice the bearings of one disease on another, and only regard the mortality from small-pox.

The people have been lulled into a sense of false security; vaccination has been insisted on instead of more rational means, such as personal cleanliness, pure water, good drainage, unadulterated food, ventilated apartments, and, in short, the promotion of *health.* Surely the *promotion of health* is a far more rational means of preventing small-pox, than the introduction

into the human system of *diseased matter* at the risk of *injuring the health.*

Let the Legislature make the supply of bad water, the neglect of proper repairs of houses, the adulteration of food penal, rather than the non-vaccination of children.

Epidemic diseases change their type. Time was when leprosy was a prevalent fatal disease in England. The chief provincial towns possessed their hospitals for lepers, many of them are still to be found. After leprosy came plague and spotted fever. Then followed small-pox, which ceased to be destructive on a large scale towards the end of the last century. Then came Asiatic cholera and influenza, all modifications of fever. Thus one disease replaces another.

Sydenham, in his work published in 1729, gave the history of Epidemics from 1661 to 1680. In 1661 continued fever and ague predominated. In 1665-6, plague. In 1667-8, small-pox. In 1669, dysentery. In 1670, measles. In 1671-2 small-pox. In 1673-4, continued fever. And again in 1675-6, small-pox.

Sydenham observed,—"For, if in the first ages of the world the small-pox never appeared anywhere, it follows that such fevers never were anywhere. It is most probable that there was no small-pox at that time.

I conjecture that diseases have certain periods, according to the occult and unaccountable alterations which happen in the bowels of the earth. *And as there have been other diseases which are either now utterly extinct*, or at least almost wasted by age, fade away and very rarely appear (of which sort is a leprosy and some other), *so the diseases which now reign will vanish in time and give place to other kinds*, whereof, indeed, we are not able so much as to guess."

While writing, "a new epidemic" of a very fatal character is reported to prevail in Ireland. The medical faculty have discussed the question, "Is this new epidemic 'Black death'?"

The Times of June 11, 1867, contained a long account of this disease, which destroys its victims in a few hours; the symptoms are thus described—"The first symptom of illness was noticed at 8 A.M. At 11 A.M. a small purple eruption appeared generally diffused over the whole body. At 1 P.M. the whole body was covered with large purple patches. Coma gradually supervened, and at 3 P.M. death, only seven hours after the first symptom."

Dr. Sydenham called dysentery a "febris introversa." Eruptions on the skin are nothing but the reverse of this introverted fever. They are a fever translated to

the skin, hence we find them most common in those countries in which fevers are epidemic.

Dr. Rush, an American authority, in his work on Fevers, observes—"Small boils are common among the children in Philadelphia at the time the cholera infection makes its appearance. *These children always escape* the *summer epidemic.*"

Dr. Bateman, in his work on fever, says, "The character of an epidemic is in some manner a test or index of the situation and circumstances of the population among which it occurs." The last visitation of Cholera, in London, 1866, was found to prevail principally in a district of the East of the Metropolis, supplied by water unfit for drinking purposes, from the presence of a large quantity of organic matters.

The conclusion to which the Author of this Essay has arrived, after ten years' diligent investigation of the statistics and mutual relations of epidemic and endemic diseases, and after, also, more than twenty years observation and experience of vaccination, is *that vaccination is an evil*, a crime against nature, unclean in its source, *dangerous in its practice, uncertain in its operation as a prophylactic*, and, also, if persisted in and extended, will, proportionately, produce all the evils which have been mentioned in this essay.

That the insertion of an animal poison into the system of a healthy child, is not justifiable. *As a means of cure,* when disease already exists, vaccination may be of some value, but even this is doubtful.

The Author believes that if vaccination had been postponed until now, the necessity for it would not have arisen. That vaccination was an improvement on inoculation was admitted sixty years ago, although inoculation possessed some advantages which vaccination does not possess. The inoculated, as a rule, were protected for life. They were healthier during life, and their liability to scrofula or to consumption was diminished, while in the vaccinated this liability is increased.

Dr. Copland *(Medical Dictionary)*, contrasts the liability of the inoculated and the vaccinated, to small-pox, thus, "It should not be overlooked that *scrofula and tubercular formations are more frequently observed after vaccination than after inoculation.** The risk of a second attack after inoculation has been urged, but this risk hardly exceeds a possibility, and should not be taken into account, the risk of being attacked after vaccination, or even after *re-vaccination* being infinitely greater, especially during adult and advanced age."

* The Author never saw a consumptive who had had small-pox.

As regards that family before alluded to, of which the two eldest members having had small-pox survived in good health, and the eight younger members died, the question suggested is—*Did vaccination produce consumption in the eight, or did small-pox in the two who survived cure scrofula pre-existing?*

Mr. Birch in his "Serious Reasons for Objecting to Vaccination" (1806), p. 57, says, "I could adduce some large families of children wherein this glandular complaint, scrofula, has for generations been acknowledged to be hereditary, who having been all, at a proper age, inoculated with small-pox by able practitioners, have grown up to full maturity without suffering from scrofula, or so much as ever exhibiting symptoms of that disorder."

Dr. Bayard, a French physician of eminence, in a petition against vaccination which he sent to the British House of Commons in 1866, and which petition was presented by Mr. Ayrton, M.P. for the Tower Hamlets, said, "Since the general introduction of vaccination into the system, the mortality of the young has doubled, and contemporaneously with this increase of mortality, we have a diminution of births, an increase of the general death-rates, and of the number of second marriages. The doubled

mortality of youth is entirely owing to intestinal affections—enteritis, cholera—affections not new, but greatly aggravated since the introduction of vaccination, and which compel the authorities to evacuate the School of St Cyr, and at other times the Barracks, the Lyceums, the Seminaries. Evacuations which had never taken place prior to 1817."

Dr. Copland (in his *Medical Dictionary*, p. 829), says, "Just half a century has elapsed since the discovery and introduction of vaccination, and after a quarter of a century of most transcendental laudation of the measure, with merely occasional whisperings of doubts, and after another quarter of a century of reverberated encomiums from well-paid vaccination-boards, raised with a view of overbearing the increasing murmurings of disbelief among those who observe and think for themselves, the middle of the 19th century finds the majority of the profession, in all latitudes and hemispheres, doubtful as to the preponderance of advantages, present and prospective, to be obtained either from inoculation or from vaccination."

If then, upon such testimony as that which the author of this essay has brought forward—if it be established beyond all doubt that vaccination has produced such evils—that it has, besides deteriorating the

constitution of individuals increased the mortality—then, indeed, the evil is *a national one.* It becomes, then, a people's question. It is not enough that the views of Dr. Simon, of a Board of Health, or of a Privy Council should have authority. It is not sufficient that Parliament should enforce upon a *free* people a system supported only by the dicta contained in a Blue-book. A full and impartial inquiry must be instituted, and all laws on vaccination suspended, say for ten years, pending the inquiry—leaving the people to exercise their free choice as to the adoption or rejection of a medical theory.

APPENDIX.

PROFESSOR SIMPSON ON VACCINATION.

At the Social Science Congress recently held in Belfast, Professor Sir James Y. Simpson, of Edinburgh, delivered an address on the subject of "public health." He very wisely observed that public health might be defined as public wealth. It was important to attend to it, because, in relation to disease, prevention was much better than cure. The learned Professor made some very judicious remarks on the importance of cleanliness, fresh air, warm clothing, good food, etc.; he also advocated the adoption of cottage hospitals* which might take the place of large infirmaries, wherein the mortality is so considerable. After referring to the greater mortality amongst unmarried than married men, he stated that he thought it better to perpetuate matrimony than suicide—he alluded to "Jenner's invaluable discovery of cow-pox, which saved 80,000 lives every year." "The Government," said he, "ought to be able to stamp out the small-pox as well as the cattle plague." Having referred to some of the "absurd prejudices" which had been entertained against cow-pox, and to the antagonism which it still encounters from some, he said that Jenner's discovery was

* The Author of this Essay, twelve years ago, urged the propriety of adapting a cottage in the outskirts of each village for the reception of the sick poor of the locality, in order to separate the dying or diseased from the living. The Author's plan was submitted to the late Duke of Grafton, who subscribed to the Author's hospital of 12 beds.

the means of saving a number of lives equal to the whole population of the United Kingdom, every 25 years."

Such a statement, put forth by such a man, on the occasion of a Social Science Congress, is naturally circulated widely, and generally received, both by the profession and the public. To the philanthropist, the assertion that vaccination saves *eighty-thousand lives per annum* is promising indeed, but such speculation is unworthy of a philosopher, unless supported by evidence.

Dr. Simpson has, however, committed the common error of looking simply and alone at the number of deaths annually under the head of small-pox. From such point of view, the statement is sad indeed. Death is, itself, a sad necessity, as some think, though that natural necessity is inevitable. Nor have we, as individuals, the choice of mode or manner of death. Looking at the liability of man to epidemic fevers, the alternative seems to be presented of dying either of small-pox, typhus, scarlatina, etc., but when Dr. Simpson put forth his statement that vaccination saved eighty thousand lives a year, he should have substantiated his statement by an appeal to statistical fact. Is Dr. Simpson prepared to adduce proof that in any country in Europe there has been a diminution of the general mortality as a consequence of vaccination?

So far from diminishing, the mortality is increasing in proportion to the extension of vaccination.

In the foregoing Essay abundant evidence is adduced, showing that a law of compensation controls the relative mortality of epidemics.

Frequently it happens that when small-pox prevails, the general mortality is below the average, corrected for population.

This fact being so apparent, it is difficult to account for Dr. Simpson's notion, excepting that, as a statistician, he is "nowhere," not having studied the subject. If Dr. Simpson had looked to the weekly reports of the Registrar-General in the

daily newspapers of 1867, he would have noticed that at the time Dr. Lankester, a Metropolitan Coroner, was recommending the charge of manslaughter against those who neglected vaccination, and bewailing the prevalence of small-pox in the metropolis, the death-rate of London was lower than it had been for years, and lower than in those large towns in which small-pox was not prevailing. The Author respectfully commends to Dr. Simpson's attention the facts contained in the foregoing Essay, feeling assured that if the Professor will look at the subject in all its bearings, he will abandon his practice of venturing speculative notions in the presence of a congress of thinking minds capable of analysing a captious speech.

LORD ROBERT MONTAGU ON VACCINATION.

In the debate on the Vaccination Bill on June 14, 1867, his lordship stated that in many districts of England little more than half the people were vaccinated, the remainder being in an "unprotected condition." In only thirty districts were as many as 50 per cent. of the children really protected from small-pox.

It is difficult to believe that the vaccination of one half the people will protect the other half from small-pox. Fancy fifteen millions of the people remaining "unprotected" and not having small-pox. Besides, of those who bear the mark of the beast only one-fifth are proof against small-pox, if as many, so that twenty-seven millions of people are in an unsafe condition. No wonder then that a protectionist, such as Lord Robert Montagu,

should as a legislator support a Compulsory Vaccination Bill. But why don't these twenty-seven millions of people get small-pox? According to the notions of the protectionists they ought to get it. What a glorious prospect for the profession who vaccinate by Act of Parliament, at a cost to the country already of £250,000 a year, if the State shall throw into their hands this mass of patients to be scarified by a poisoned lancet!

Lord Robert, in advocating the Compulsory Vaccination Bill, laid great stress on the lamentable fact that in the three years, 1863, 1864, and 1865, twenty-thousand deaths had occurred from small-pox; but his lordship should have stated the fact that of the nine principal causes of death in those three years *small-pox presents the smallest mortality.* A reference to the tables in the foregoing Essay (page 88), will show that while small-pox killed 20,000, scarlatina killed 78,000, and, sad to relate, phthisis destroyed upwards of 157,000, as the following abstract shows:—

Causes of Death in the three years 1863-4-5.

1	Small-pox	20,059
2	Measles	28,234
3	Scarlatina	77,875
4	Whooping-cough	28,492
5	Typhus	61,157
* 6	Phthisis	157,852
* 7	Bronchitis	107,422
* 8	Pneumonia	71,140
9	Convulsions	79,112

* These three forms of chest disease killed in the aggregate *three hundred and thirty-six thousand four hundred and fourteen, while small-pox killed only twenty thousand.*

It should be observed, too, that *scarlatina destroyed a thousand more lives than the aggregate of small-pox, measles, and whooping cough.* If small-pox purifies the body of those who have it naturally, saving them from strumous taint, while vaccination increases the liability to consumption, no wonder that the mortality from the latter cause is increasing.

We hope that Lord R. Montagu will lay these things to his heart, abandon his "protection" principles, and become a reformer of Jennerian abuses.

DR. LANKESTER ON VACCINATION.

"A London Coroner's Work."

From the *Times*, May, 1867.

"Dr. Lankester, the coroner of Central Middlesex, has just issued his annual report, containing interesting general and statistical information relating to life and death in the metropolis. The number of inquests he and his deputy, Dr. Hardwicke, have held during the year is 1,385, as compared with 1,246 of the previous year, and 1,271 of the year before that. The inquests are divided into deaths from natural causes, accidental causes, homicides and manslaughter, suicide, and 'unknown,' and it is somewhat remarkable that while the average of all causes of death, with the exception of infanticide and fatal accident, keeps to one level, deaths from those two causes are steadily increasing, and 'apparently at a greater rate than can be accounted for by a mere increase of population.' On the subject of infectious diseases he says:—'In some of the cases in which inquests were held

during the last year, on cases of typhus and typhoid fever, it was shown that gross neglect of the most ordinary sanitary arrangements had led to the death of those on whom inquests were held. In these cases, the holding of the inquest and the verdict of the jury have led to the immediate improvement of the neighbourhood in which they have occurred; and I feel persuaded that the public are yet not fully alive to the benefit to be derived from the inquiries of the coroner's court into the causes of the preventible death from fevers of various kinds which now destroy so large a proportion of our population. The epidemic of small-pox, which is now extending in London, and which has carried off several hundred of its inhabitants, and is at the present moment progressing, originated during the past year. Feeling convinced that the neglect of vaccination is one of the great causes of the origin and spread of this foul disease, I have felt it to be my duty to hold inquests in those cases which have come to my knowledge where children have died from this disease without being vaccinated. I have thought this inquiry was within the scope of the spirit of the coroner's court, which inquires into the causes of all deaths that might have been prevented by proper and reasonable forethought and provision. It is well known that even when persons catch small-pox after vaccination they are not so likely to die as those who have not been vaccinated, and a coroner's jury has a right to pronounce an opinion on the neglect which thus exposes the lives of people to danger. There is also the fact that the unvaccinated take the disease much more extensively in proportion to their number than the vaccinated, and thus become the means of spreading this loathsome disease in the community in which they live. Besides this, the legislature has passed a law whereby persons, whether parents or guardians, are exposed to a fine for not having children vaccinated at a proper age. The question has, I believe, never been decided in a court of law, but it is certainly one that invites attention, *as to whether, according to the spirit in which the verdict of manslaughter is returned in other cases, persons breaking the law in neglecting to have their children vaccinated are not exposed to a verdict of manslaughter* if it can be shown that they have died of small-pox from not having been vaccinated as the law requires.' Of suicide he says,—'Of all the causes of death that come before the coroner's court, suicide appears to be the most permanent, and the least liable to change. The figures 71, 72, 75, 79, seem almost to represent the increase of population. The proportion of males to females differs little from year to year; the choice of the means of self-destruction is so constant that they hardly

demand notice. The returns of deaths from year to year may offer a subject of interesting study to the psychologist; *but the iron hand of irresistible law is so obviously at work in this form of human sacrifice that it seems scarcely to offer a topic of discussion to the social philosopher, and he draws over it a veil as one of the inscrutable mysteries of life.'*"

Dr. Lankester has observed the remarkable fact that the "*average of all causes of death*, with the exception of infanticide and fatal accident, *keeps to one level.*"

Even the number of suicides bear a certain constant proportion to the population, whilst the proportion of males to females of suicidists differs little from year to year. Still more remarkable, "the choice of the means of self-destruction is constant."

Dr. Lankester is fully aware that the average of all causes of death keeps to one level, but it does not appear that the learned doctor has looked into the bearing of one disease upon another —the "one level" being really due to a law of compensation, so that when one form of fever is in the ascendant another is in abeyance. It is not easy to see, if the average of all causes of death keeps to one level, what advantage can arise from vaccination. That a very considerable number of deaths do take place which are preventible there is no doubt; small-pox is one of these diseases, typhus is another. The same circumstances and conditions favour the development of both—fostered, indeed, by the gross neglect of all sanitary laws. Let cleanliness take the place of filth, and the "level" to which Dr. Lankester alludes will fall lower. Vaccination has failed in this respect, yet Dr. Lankester suggests that a verdict of manslaughter should be returned against the parent of any child dying of small-pox whose vaccination has been neglected. This preposterous suggestion will find little sympathy among a free people, especially in those who are already acquainted with the evils of vaccination. If the Doctor peruses the Registrar-General's reports, he will find numerous instances in which *death has been caused by vac-*

cination. Is the verdict of manslaughter to lie, in this case, at the door of the vaccinator, or the parent, or Parliament that imposed the practice? In the year 1840 Parliament passed a law to prohibit innoculation with small-pox matter; it is to be hoped that a similar law will yet be passed in regard to vaccine poisoning.

One word more to Dr. Lankester. He says, "It is well known that even when persons catch small-pox after vaccination they are not so likely to die as those who have not been vaccinated." True, they may not be so likely to die immediately, but they are more likely to die subsequently if overtaken by another form of fever, or Dr. Lankester's average of all causes will not maintain its level.

Dr. Lankester is respectfully advised to take a wider view of the causes of death, and not limit his observations to small-pox alone. The tabulated statistics in the foregoing Essay will assist him greatly in his farther researches; his law will be fully borne out as to vicarious mortality; he will find, for instance, that in the year 1838, when small-pox killed 16,268 persons in England, the death rate was 2·342. In the year 1847, when the deaths from small-pox were only 4,227, the death rate increased to 2·541—typhus taking the place of small-pox and killing upwards of thirty thousand in that year.

In reference to suicide, Dr. Lankester says, "The *iron hand of irresistable law* is so obviously at work in this form of human sacrifice, that it seems scarcely to offer a topic of discussion, and he would draw over it a veil as of one of the inscrutable mysteries of life." The iron hand of irresistable law is recognised in the constant number of suicides, but, in reference to epidemics, Dr. Lankester suggests a *resistable* law of Parliament—fine and imprisonment for murder in the second degree of those who refuse to pollute their offspring with the filthy secretion of a diseased brute.

If such coroner's philosophy should become law, may heaven save our infants from Herod's massacre.

The two tables given below are reprinted from the Registrar General's Report last issued.

No. 1 table shows the proportion of marriages, births, and deaths to the population of England.

No. 2 table shows the death rate of males and females in each year, from 1838 to 1865.

It will be observed that the death rate of females is lower than that of males in every year, and that in the cholera year of 1849 the difference in the death rate between females and males was only one per cent: 101 males dying for every 100 females.

1838 was the year of greatest mortality from small-pox: its number was 16,268; scarlatina being 5,802. In 1840, small-pox presented a mortality of 10,434, when scarlatina rose to 19,816; the death rate being heavier in the latter year.

Again, in 1852, small-pox killed 7,320 persons, while measles killed 5,846.

In 1854, small-pox fell to 2808, and measles went up to 9,277; the death rate being made heavier, *not by small-pox but by measles.*

It is a remarkable fact that the death rate has not been increased in any one year by small-pox, however heavy the epidemic; typhus, measles, scarlatina, and whooping-cough being the principal modifiers of the death rate, each taking its turn as the preponderating epidemic.

TABLE 1.—*Proportion of Marriages, Births, and Deaths to the Population of England, in each Year from* 1838 *to* 1865.

Years ended 31st. Dec.	To 100 Persons Living.				The Number of Persons Living			
	Marriages	Persons Married	Births.	Deaths.	To one Marriage	To one Person Married	To one Birth	To one Death.
1838	·771	1·542	3·029	2·238	130	65	33	45
1839	·794	1·588	3·175	2·185	126	63	31	46
1840	·780	1·560	3·195	2·288	128	64	31	44
1841	·769	1·538	3·215	2·159	130	65	31	46
1842	·737	1·474	3·211	2·168	136	68	31	46
1843	·759	1·518	3·231	2·123	132	66	31	47
1844	·80	1·602	3·273	2·161	125	62	31	46
1845	·860	1·720	3·251	2 089	116	58	31	48
1846	·861	1·722	3·383	2·306	116	58	30	43
1847	·793	1·586	3·152	2·471	126	63	32	40
1848	·797	1·594	3·247	2·306	125	63	31	43
1849	·808	1·616	3·294	2·512	124	62	30	40
1850	·860	1·720	3·340	2·077	116	58	30	48
1851	·858	1·716	3·425	2·199	117	58	29	45
1852	·873	1·746	3·430	2·238	115	57	29	45
1853	·894	1·788	3·327	2·288	112	56	30	44
1854	·858	1·716	3·408	2·352	117	58	29	43
1855	·808	1·616	3·373	2·261	124	62	30	44
1856	·837	1·674	3·453	2·051	119	60	29	49
1857	·826	1·652	3·443	2·180	121	61	29	46
1858	·802	1·604	3·366	2·309	125	62	30	43
1859	·852	1·704	3·504	2·239	117	59	29	45
1860	·855	1·710	3·437	2·124	117	58	29	47
1861	·814	1·628	3·461	2·163	123	61	29	46
1862	·807	1·614	3·504	2·147	124	62	29	47
1863	·844	1·688	3·539	2·205	118	59	28	43
1864	·868	1·736	3·564	2·386	116	58	28	42
1865	·884	1·768	3·564	2·33	113	57	28	43
Mean...	·824	1·648	3·350	2·238	121	61	30	45

NOTE.—The Table may be read thus;—In the year 1838 to every 100,000 persons living there were 771 marriages or 1542 persons married, 3029 births, 2238 deaths; the number of persons living to every marriage, person married, birth or death, was 130, 65, 38, and 45 respectively. A correction for increase of population has been made in calculating the above results.

TABLE 2.—*Annual Rate of Mortality of Males and of Females in England*, 1838—65.

YEARS.	DEATHS.		Deaths of Males to 100 Deaths of Females.	Of equal Numbers living, the Number of Male Deaths to every 100 Deaths of Females.
	Of Males to 100 Males living.	Of Females to 100 Females living.		
1838	2·342	2·146	105	109
1839	2·277	2·097	104	109
1840	2·372	2·204	103	108
1841	2·238	2·083	103	107
1842	2·239	2·098	102	107
1843	2·199	2·047	103	107
1844	2·238	2·083	103	107
1845	2·166	2·011	103	108
1846	2·390	2·221	103	108
1847	2·541	2·380	103	107
1848	2·387	2·224	103	107
1849	2·578	2·445	101	105
1850	2·142	2·013	102	106
1851	2·276	2·124	103	107
1852	2·324	2·155	103	108
1853	2·383	2·197	104	108
1854	2·441	2·267	103	108
1855	2·351	2·174	104	108
1856	2·136	1·969	104	108
1857	2·257	2·107	102	107
1858	2·390	2·233	102	107
1859	2·327	2·155	103	108
1860	2·218	2·034	104	109
1861	2·268	2·063	104	110
1862	2·249	2·049	104	110
1863	2·424	2·193	105	111
1864	2·514	2·264	105	111
1865	2·477	2·208	106	112
Average of 28 years, 1838-65	2.327	2·152	103	108

The Table may be read thus:—In the year 1838 to every 100 males living there were 2·342 deaths of males; to every 100 females living there were 2·146 deaths of females; and to every 100 females who died there were 105 deaths of males. The last column shows the *relative* mortality of *males* and *females*; and that out of equal *numbers living* the deaths of males were 109 to every 100 deaths of females in 1838.

The following memorial to the Privy Council was presented by a deputation from the Anti-Vaccination League, and is reprinted from the House of Commons papers, May 8, 1867 :—

"VACCINATION.

"Return to an Address of the Honourable the House of Commons, dated 2nd May, 1867 ;—*for*

'COPY of the MEMORIAL on the Subject of VACCINATION presented to the Lord President of the Privy Council on the 5th day of March, 1867.'

"To His Grace the Duke of BUCKINGHAM, Lord President of "Her Majesty's Privy Council.

"The humble Memorial of the Anti-Compulsory Vaccination "League,

"Sheweth,

"That small-pox was epidemic in this country previous to the introduction of inoculation at certain intervals, usually of seven years, the mortality from time to time varying from 3 to 130 per 1,000 of the number attacked.

"That the practice of inoculation with the small-pox was introduced into this country from Turkey in the year 1722.

"That an hospital for the reception of patients suffering from small-pox, and for propagating the same disease by inoculation, was established in London in the year 1746.

"That after much controversy, the College of Physicians in London adopted inoculation in 1754, and 'considered it highly beneficial to mankind.'

"That small-pox was kept constantly alive by means of inoculation, which for a lengthened period of time continued to provide new centres of contagion; and the mortality became very large, notwithstanding an improved mode of treatment.

"That in 1798 the belief in the utility of inoculation with small-pox was greatly lessened; at which time Dr. Jenner published his 'Observations on Cow-pox,' having vaccinated for the first time 14th May, 1796.

"That Dr. Jenner petitioned Parliament for a reward for his discovery in 1802, and affirmed his belief that 'the annihilation of the small-pox must be the final result of the practice of vaccination.' In the same year the House of Commons voted him £10,000. But many eminent members of the faculty thought the action of Parliament too precipitate.

"That in 1803 the Royal Jennerian Society was formed, and a belief was cherished that small-pox was about to be exterminated.

"That in 1807 the Royal College of Physicians reported that 'the security derived from vaccination, if not absolutely perfect, is as nearly so as perhaps can be expected from any human discovery.'

"That in the same year the House of Commons, in Committee of Supply, voted an additional grant of £20,000 to Dr. Jenner; the motion of Mr. Shaw Lefevre to take more time to consider the Report of the College of Physicians being rejected, and the grant passed by 60 to 47.

"That the National Vaccine Establishment was founded in 1808-9, and supported by an annual grant from the Public Purse, and the privilege of free post. The Reports issued annually from 1810 to 1860, vary considerably in the degree of confidence in which the suppression of small-pox is predicted.

"That in 1833 a Committee of the House of Commons, appointed to enquire into the utility of the Vaccine Establishment, reported, that 'the Committee are led to believe that the prejudices against vaccination are greatly on the decrease throughout the country; and the authority of the Managing Board is not necessary to enable vaccination to withstand these prejudices.'

"That in 1840, inoculation for small-pox was forbidden by Act of Parliament, and in that and the following year, Boards of Guardians were empowered to provide for the cost of vaccinating parishioners out of the poor rates.

"That in 1853 an Act to extend and make compulsory the practice of vaccination was passed, notwithstanding the promise of the Government, that enquiry should precede any further legislation on the subject; and the energetic protest of a large number of intelligent members of the faculty.

"That in 1856 the medical officer of the Privy Council, addressing members of the medical profession, and referring to objections to the course of legislation, urged during the previous Session of Parliament, thus wrote:—'The President of the Board of Health intends forthwith, on the meeting of Parliament, to move the House of Commons for a Select Committee on the entire subject, which Committee if appointed, would no doubt receive whatever evidence can be adduced as to the hygienic value of vaccination, and as to the validity of any medical objections alleged against its further encouragement by the State.'

"That in 1857 a Bill was introduced by private Members to repeal the Act of 1853, but not passed.

"That measures to amend and extend the provisions of the Act of 1853 were subsequently passed.

"That in 1863 the law enforcing vaccination was extended to Scotland and Ireland.

"That large sums of public money are annually spent in the support of vaccination, so that by the operation of these and other measures, the continuance of such practice has now become a large vested interest.

"That as a consequence, during the last Session of Parliament, a Bill to provide cumulative penalties for neglect of vaccination, and to empower certain officials to order re-vaccination at their pleasure, with several other oppressive provisions, was introduced into the House of Commons, but eventually withdrawn.

"That a large number of petitions have been, from time to

time, presented to Parliament against compulsory vaccination, and many from parents who alleged that they had lost children by death through the operation, and wished to give evidence respecting their cases, but these petitions have not been made public.

"That before an impartial tribunal your memorialists are prepared to prove that there is a large and increasing scepticism as to the utility of vaccination in the country, justified by the fact that for some years past the proportion of vaccinated patients, when small-pox prevails, is 75 and 80 per cent.

"That Dr. Jenner's theory, that the cicatrix left by the pustule was an indication that the person was protected against the small-pox for life has been given up on all sides, and re-vaccination every seven, five, or three years is recommended, and that there should be not less than eight well-formed pustules.

"That past promises of investigation have been disregarded, and an operation of doubtful efficacy has been forced on those persons who have conscientious objections to it, a mode of proceeding calculated to lessen the reverence which should be entertained for just laws.

"Your Memorialists, therefore, humbly pray, that your Grace will have the goodness to advise Her Majesty to be pleased to issue a Royal Commission for the purpose of thoroughly and impartially investigating all the facts bearing on a question of such grave importance to Her Majesty's formerly free people.

"And your Memorialists will every pray, &c.

"Signed by Medical and Lay Members of the Anti-Vaccination League.

"RICHARD B. GIBBS, Hon. Sec."

"5*th March*, 1867."

The Anti-Compulsory Vaccination League, which, as its name implies, has for its object the removal of the yoke imposed on the people of England since the year 1853, may be said indirectly to owe its origin to John Gibbs, Esq., late of St. Leonards-on-Sea, who for several years was in close communication with the late Thomas S. Duncombe, Esq., who consistently opposed the course of legislation on vaccination, and many other Members of Parliament, and kept the subject before the public by pamphlets and in various other ways at his own expense. When the renewed aggression on the medical liberties of the people was made in the Spring of 1866, Richard B. Gibbs, Esq., a relative of the before-mentioned gentleman, suggested the formation of a league, thinking it hardly fair that the expenses of a movement which should be national should be borne by one family. The suggestion was immediately united with by the survivors of the former agitations and new adherents, and Mr. Gibbs has attended and addressed meetings at Brighton, Bedford, Newcastle, Pimlico, Richmond, Cheltenham, Hastings, St. Austell, Darlington, Hackney, Hull, Paddington, Leeds, Sheffield, &c., and has been in communication with many members of both Houses of Parliament. As the work is extensive, and the enemies of the people's liberties have command of the public purse, it is evident that the league requires pecuniary support, which it is hoped will be forthcoming.

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