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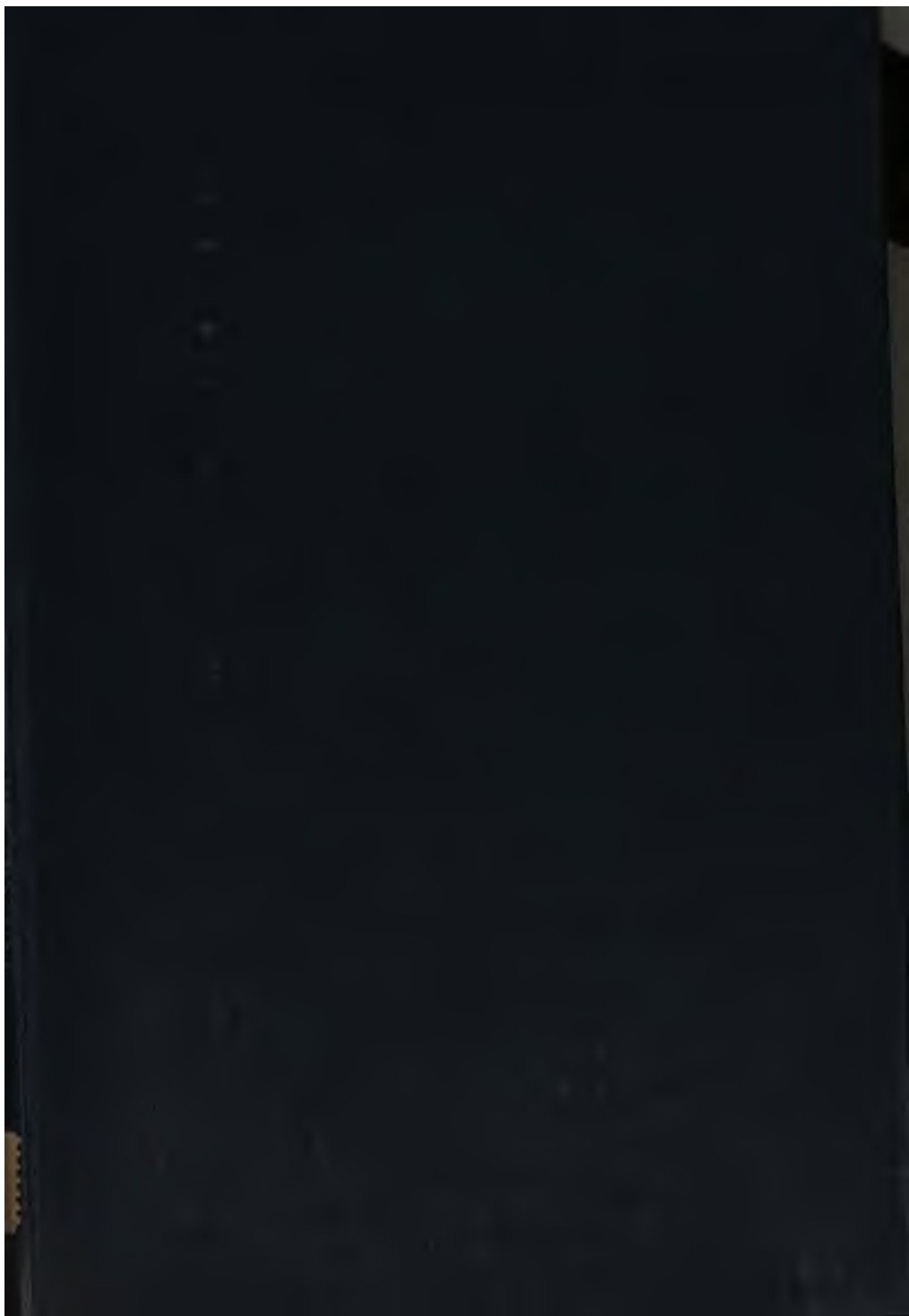
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VITAL STATISTICS.

SMALL-POX & VACCINATION

IN THE

UNITED KINGDOM

OF

GREAT BRITAIN AND IRELAND

AND

CONTINENTAL COUNTRIES AND CITIES,

WITH TABLES COMPILED FROM AUTHENTIC SOURCES.

BY

CHARLES T. PEARCE, M.D., M.R.C.S. ENG.

AUDE SAPERE.

DEDICATED TO THE BRITISH PARLIAMENT.

THE LONDON SOCIETY FOR THE ABOLITION OF COMPULSORY VACCINATION,
114, VICTORIA STREET, WESTMINSTER, S.W.
E. W. ALLEN, 4, AVE MARIA LANE, E.C.

1882.



DEDICATION.

*To the Most Noble the Peers of the United Kingdom in
Parliament, and to the Honourable Members of the
House of Commons of the United Kingdom of Great
Britain and Ireland.*

MY LORDS AND GENTLEMEN,—

In dedicating the following volume to you, I am encouraged by the hope that its contents may be accepted as a humble attempt to strengthen and confirm the facts which I had the honour to place before your notice in a letter to the Right Hon. G. Scater-Booth, in the year 1877, a copy of which I then forwarded by post to each Member of both Houses of Parliament, calling attention to the failure of Vaccination to prevent small-pox, as well as to the dangers attending the practice.

Parliament having passed several Statutes to enforce Vaccination, I am encouraged to hope that Parliament will seriously re-consider the subject, and advise Her Majesty to order a Royal Commission of inquiry—more especially as the Legislature is not in possession of all the evidence which has accumulated since the year 1853, when a report was presented to both Houses, drawn up by a small Medical Society, upon which “Report” an Act was passed to enforce Vaccination under penalties or imprisonment.

I humbly submit the following pages to your consideration, and feel justified in so doing, under the apprehension that the peace of the country is endangered by the accumulating resistance on the part of parents of both sexes, to a law cruelly and tyrannically imposed under the existing "Acts" by Boards of Guardians at the dictation of interested officials—paid agents—to violate the sanctity of conscience, and the homes of a loyal and law-abiding people; while magistrates who have properly been called a "*terror to evil-doers*," have a new Statutory function to fulfil in committing parents, who have done no wrong to prison, there to associate with thieves and criminals of every type.

I feel convinced, My Lords and Gentlemen, that when the facts concerning Vaccination are known in all their bearings and relation to the life and well-being of the nation, you will arrive at the conclusion, that to retain in the Statute-book an Act compelling submission to a dangerous operation, under fine and imprisonment, is discreditable as well to hereditary, as to representative, Parliaments; and that you will in due time, after fair inquiry, repeal those Acts.

I am, my Lords and Gentlemen,

Your obedient Servant,

CHARLES T. PEARCE.

PREFACE.

THE following Essay is a continuation and extension of the text and figures contained in a letter which, in the year 1877, the Author addressed to the Right Hon. G. Sclater-Booth, M.P., then President of the Local Government Board.

The revelation therein of the fact that in England and Wales, each epidemic visitation of small-pox had increased in severity concurrently with the extension of vaccination, appeared so astounding to the Right Hon. gentleman and his associates in the Department of STATE CONTROL OF LOCAL GOVERNMENT of which he was the chief, and so astounding to a goodly number of the profession to which the Author has the honour to belong, that hints of doubt were heard of the credibility of the statistics. They were, however, proved to be indisputable, being attested at Somerset House, in the office of the Registrar-General.

The subsequent general acceptance of the "authority" was so strongly manifest throughout the country, that the Author received letters from many parts of the kingdom, expressing a hope that he would continue the series of statistics which he, in the opinion of the writers, had so well begun.



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THE READER IS REQUESTED TO NOTE THE
FOLLOWING CORRECTIONS.

ERRATA.

- Page 2.—Tenth line from top, for “constitution” read “constitutional.”
- „ 3.—Sixteenth line from top, for “demonstated” read “demonstrated.”
- „ 4.—Thirteenth line from top, for “irrevitably” read “inevitably.”
- „ 4.—Eighteenth line from top, for “are” read “is.”
- „ 4.—Fourth line from bottom, for “two and a half only” read “two and a half per cent. only.”
- „ 6.—Sixth line from bottom, for “letter” read “volume.”
- „ 9.—Second line from top, for “demonstated” read “demonstrated.”
- „ 24.—Insert over right hand column of figures “per 100,000 living.”
- „ 45.—Seventh line from top, after the word “Report” insert “on Vaccination.”
- „ 46.—After “1872 2488’
Add— 1873 1126
1874 1246
1875 76
1876 89
1877 88
- „ 55.—Right hand column of figures :—
After—“1877” “38”
Add— 1878 570
1879 525

- Page 56.—Second line from bottom delete “ and.”
- „ 56.—First line from bottom, for “ all and other ” read
“ and all other.”
- „ 64.—Thirteenth line from bottom, after “ Inquiry ” insert
“ that he.”
- „ 77.—Third line from bottom, for “ 8171 ” read “ 1871.”
- „ 78.—Eighth line from bottom, for “ xxxvi.” read “ xxxvii.”
- „ 79.—Seventh line from bottom, for “ xxxvii.” read
“ xxxviii.”
- „ 80.—Second line from top, after “ xvii.” insert “ page 62.”
- „ 88.—Fifth line from bottom, for “ xxxix.” read “ xl.”
- „ 107.—Sixth line from bottom delete “ 8.”
- „ 109.—Seventh line from bottom, for “ Rothery ” read
“ Rothery.”

PART I.—LONDON.

IN the Report of Mr. Simon, then Medical Officer of the Privy Council and Local Government Board, No. IV., New Series, 1875, there appeared at page 64 the following passage:—

“About twenty years ago (1853) the Epidemiological Society of London communicated to the Home Secretary [Lord Palmerston] a report* of an extensive inquiry which had been made by them into the state of small-pox and vaccination in England and Wales, and *other countries*, in which they showed that the then average proportionate small-pox mortality in England and Wales was considerably more than double the small-pox mortality of any of those European States in which *vaccination was, directly or indirectly, compulsory*; and that the mortality in Scotland and Ireland was much greater even than that in England. This report, which was subsequently presented to, and printed by order of Parliament, SUPPLIED THE ARGUMENTS ON WHICH THE FIRST COMPULSORY VACCINATION LAW IN ENGLAND, A LAW WHICH HAS BEEN SINCE MUCH AMENDED, WAS ENACTED IN 1853.”

These are the words of Mr. Simon. That report was ordered by the House of Commons to be printed on the 3rd of May, 1853, and by the House of Lords, on the 27th of June, 1853, and *immediately* followed by an Act of Parliament, which was

* Ordered to be printed by the House of Commons, May 3rd, 1853, and by the House of Lords on the 27th June, 1853.

passed on the 20th August, near the end of the Session, at a late hour, when a few members only were present. No time was allowed to the members or the public to consider a bill, which, in a few weeks, was to give power to the magistracy to fine, and in default, to commit to prison any subject, however loyal, who refused to bow down to the dogma of the interested promoters of the bill.

For no offence against Society—for no crime committed—a parent was to be cast into gaol, without trial by jury, in violation of constitution law.* The Act was passed on the 20th of August, and applied to *all* children born after the first of that month.

Thus was a bill promoted by an obscure Society, urged by paid officials in the interest of the fraternity which they represented, forced upon the Government of the day, and quickly imposed upon the people.

That the few who were "*The Epidemiological Society*" believed that small-pox had become less fatal on the Continent in consequence of vaccination, I have no reason to doubt.

The "*Epidemiological Society*" also thought a compulsory enforcement of vaccination in this country would lead to a similar (supposed) result as that which appeared to be the result of compulsion on the Continent, but the haste with which action was taken by the Government was wholly unjustifiable, the undue haste with which the bill was introduced and passed through both Houses of Parliament, between the 27th of June, and the 21st of August, is unworthy of a representative Government in respect to any measure which interferes with the liberty

* Judge Blackstone in his able commentary on English law stated that it is the glory of England that no one could be committed to prison except for felony, without trial by a jury of twelve of his countrymen.

of the subject. "The argument supplied by the report on which the Act of 1853 was based" was fallacious, and I hold that the State has no right to continue in operation a law based on false deductions, and I submit that when "the argument" is proved to have been fallacious, it is the duty of Parliament to repeal the law. Had an efficient inquiry been instituted by a Royal Commission, the Compulsory Act of 1853 would not have been passed. *It was passed, however, notwithstanding the promise of the Government that enquiry should precede any further legislation on the subject.*

In my Vital Statistics, No. I., which I addressed to Mr. Sclater-Booth, a copy of which I transmitted to every Member of the Upper and Lower Houses of Parliament, I called attention to the serious increase of small-pox mortality in England and Wales in each succeeding epidemic since the said Act of 1853 was passed, demonstrated in the following table, compiled from the official returns of the Registrar-General for England and Wales:—

In the first epidemic after the Act came into operation, viz. in the years

1857-8-9 the deaths from small-pox were	14,244
1863-4-5 (the second epidemic) they rose to	20,059
1870-1-2 (the third epidemic) they reached... ..	44,840

So that, notwithstanding the very considerable increase in the number of vaccinations, the disease advanced in an *increasing ratio*.

Indeed, while the population increased between the first and second epidemics seven per cent., the deaths from small-pox increased *forty* per cent.; and while from the second to the third epidemic the population increased *ten per cent.*, the small-pox deaths increased no less than *one hundred and twenty per cent.*

If we take two decennial periods from the passing of the compulsory law in 1853 we find the small-pox

Deaths from 1854 to '63 were 33,515

and from 1864 to '73 „ 70,458

The foregoing figures were so startling and unexpected that from one end of the United Kingdom to the other, there has grown up an active inquiry into all statistics put forth by the advocates of vaccination. It is thus seen, at a glance, that the progressive mortality from small-pox in an *increasing ratio* under this compulsory law, falsified the glowing statements put forth by so-called authorities, "that vaccination was an effectual preventive of small-pox."

The intelligent classes are now giving that attention to the subject which must irrevitably lead to a more determined resistance to the law, while the Medical profession to a large extent have manifested their misgivings as to the efficiency of vaccination, and expressed doubts as to the justice of a law which compels parents to submit, or be fined and imprisoned. Among those are Sir Thomas Watson, who, in an article in a number of the *Contemporary Review*, says:—

"I can readily sympathise with and even APPLAUD a father who with the presumed dread or misgiving in his mind, is willing to submit to multiplied judicial penalties rather than expose his child to the risk of an infection so ghastly."

When in the year 1871 Mr. Simon was examined by the Select Committee of the House of Commons on the Vaccination Acts in answer to question, No. 3052, he said:—

"Taking all ages below 50, about two and a half ^{per cent} only are unvaccinated."

Mr. Simon being further questioned as to the data he possessed for this statement, replied to question 3049 thus:—

“In the London recruit examinations in the three years, 1866-7-8, there were 14,727 examinations, and the results in round numbers were these: that six per cent. had marks of small-pox, $91\frac{1}{4}$ per cent. had marks of vaccination; that, therefore, only the remainder, or $2\frac{3}{4}$ per cent. were unprotected.”

These were young men who came from various places to enlist in the army.

The same witness (Mr. Simon) in answer to the question, No. 3045, said:—

“In the year 1863, when there was prevailing a less general vaccination than at present prevails, Dr. Seaton and Dr. Buchanan inspected the schools of London with reference to this question, and obtained results which are contained in the appendix to my sixth annual report. They examined nearly fifty-three thousand children, mostly between 3 and 12 years of age. The upshot of their figures was this, that about 95 and 2-thirds per cent. were PROTECTED, namely about one per cent. by previous small-pox, and the remaining $94\frac{2}{3}$ per cent. by vaccination, and that only about $4\frac{1}{2}$ per cent. were unprotected.”

To the next question put to him by the Committee, Mr. Simon gave the following answer:—

“Of nearly 50,000 vaccinated, only 508 were found with doubtful marks. The children who were examined, were about an eleventh part of all the children of the same age.”

So that, according to Mr. Simon, of half a million of children, only five thousand could be found with doubtful marks. That was in the year, 1863. They varied in age between 3 and 12 years, so that, by this time, the youngest would be 21, and the eldest, 30. These 50,000 are now, if living, 50,000 men and women. Is it surprising that the diluted

small-pox filtered (it is said) through the cow, was so much small-pox seed, which now crops up as small-pox?*

In the year, 1857, a quarto volume of "Papers relating to the history and practice of Vaccination," compiled by Mr. Simon, who was then Medical Officer to the Board of Health, was presented to both Houses of Parliament. At page lxvii. of the letter of Mr. Simon, which forms the preface to the "Papers," I find the following venturesome statement:—

71 "By vaccination properly administered, the once enormous fatality of small-pox may be reduced almost to nothing."

At page lxx. a still more astounding statement is made:—

"Henceforth it [vaccination] was to be counted among THOSE CONDITIONS, NECESSARY FOR THE MAINTENANCE OF LIFE, which a parent should not be entitled to withhold, any more than food or clothing from his offspring."

A preposterous statement. Further on at page lxxxiii. Mr. Simon, speaking of Dr. Jenner and his process, says:—

"To arm mankind against the worst of pestilences—to widen by one discovery the horizon of human life—to banish a cruel terror from every mother's heart—such was Jenner's aspiration in his study of nature. *Such has been the* FRUIT OF HIS PHILOSOPHY."

Where? let me ask, has vaccination widened the horizon of human life? Where the "fruit of his philosophy?" Facts which I have placed before the Local Government Board and the country, with those which follow in this letter, completely prove that Jenner's aspiration has *not* been confirmed. Human life has *not* been prolonged. Mortality has *not* diminished. The "millions of lives saved" by vaccination are no where existent. The "terror of every mother's heart" has been exchanged for a much more afflicting terror. Not that of a natural disease which

* See the chapter on Lymph.

was then and is now the offspring of dirt, of body, of house, of city!! The present terror to mothers is the LAW, the LANCET, and the LYMPH, a terror not alone of that disease of uncleanness—cow-pox, but, alas! as the facts placed before the notice of Mr. Sclater-Booth in my letter undeniably proved a terror of disease of immorality and shame, conveyed to the mother's infant through the lancet, in the hands of licensed and appointed agents, and enforced by the State by a law, cruel, persecuting, and wicked.

The vaccine theorists ignore one of the most important facts in reference to susceptibility. It is assumed that every child possesses a "congenital liability" to small-pox. Hence if a vaccinated child gets small-pox and recovers, its recovery is attributed to the protective power of vaccine! If, on the other hand, the vaccinated patient who dies is a child, they at once exclaim, "It was bad vaccine," or, "badly done." Again, if the patient is a youth, and has passed infancy, it is immediately accounted for by the vaccination having "worn out," and should be done again. And this in the face of all experience and observation of failure.

In the 30th report of the Registrar-General, page 215, Dr. Farr very pertinently remarks:—

"Small-pox, as a general rule, occurs only once in life. *Some children enjoy an immunity against an attack.* They cannot be vaccinated, they cannot be inoculated. Others are infected "by the slightest exposure; and under infection, some take the disease slightly, some malignantly—fatally."

This opinion of Dr. Farr coincides with the observations of 250 years in England.

I have already stated that the Compulsory Act of 1853 was founded on the erroneous conclusions of the Epidemiological Society. In the first place, the report of the Vaccination

Committee of that Society contained the following assumption :

“ 1st.—Small-pox is a disease to which *every person is liable*, “ who is not protected by a previous attack, or by vaccination.”

To suppose that everyone born into the world is liable to small-pox, is to suppose that which is not true. It is no more true than that every child *must* have measles, or that everyone *must* have scarlatina, whooping cough, typhoid fever, or any other of the Zymotic diseases. The next statement made in the said report was, that as :—

“ 1st.—Every case of small-pox is a centre of contagion ;” and

“ 2nd.—That as every unvaccinated or improperly vaccinated population is a nidus for the disease to settle in and “ propagate itself ; therefore, on *these two propositions*, we conceive must be based any enactments for rendering vaccination “ compulsory.”

The Committee then proceeded to say that vaccination is a perfectly safe and *efficient* prophylactic against small-pox. Further they say :—

“ We hold this proposition to be proved by the *general immunity* of the *vaccinated* ;” * and

“ 2nd.—By the gradual decrease which has taken place in “ the mortality from small-pox, as compared with the mortality “ from all causes since vaccination has been introduced.”

* This “ general immunity of the vaccinated ” is not borne out ; the fact being that from 84 to 90 per cent. of small-pox cases admitted into small-pox hospitals are found to have been vaccinated.

Sir Dominic Corrigan, M.D., when acting as one of the Committee in 1871, on the Vaccination Act, said that, “ an unvaccinated child was like a bag of gunpowder, which might blow up the whole school, and ought not, therefore, to be admitted to a school, unless he was vaccinated.”

The fallacy of supposing that vaccination is "*perfectly safe*" has been demonstrated again and again from the time of Jenner, by his contemporaries, down to the demonstration furnished by the highest authorities of experience, recently. How, therefore, can a practise be *perfectly safe* when it is admitted, yea, established not only that syphilis is transmissible in vaccine lymph, but that the child from whom the lymph had been obtained appeared remarkably healthy, and manifested no signs of the disease until after vaccination had completed its course; this was the case in the shopmen and girls in a West-end Drapery Establishment in London, who were syphilized by vaccination, tyrannically enforced upon them by their proprietor, on pain of dismissal from his employ if they refused. The second fallacy is presented in the second proposition, *i.e.*, that "vaccination is an efficient prophylactic against small-pox." This assumption first put forth by Jenner as an *a priori* statement, and disproved a thousand times during his life was re-asserted in 1853 by those Epidemiologists, fifty years after Jenner got his nostrum adopted by Parliament.

This assertion is the more extraordinary from the fact that one of that committee, Mr. Marson, was surgeon to the Highgate Small-pox Hospital, and knew its failure as a prophylactic; besides which the writings and experience of such men of eminence as Dr. Copland and Dr. Gregory must have been known to them. Yet that Committee, with Mr. Simon, made a "cat's paw" of the late Lord Lyttleton who introduced the bill of 1853 to the House of Lords. The declared object of that Act is not yet, nor ever will be established, *viz.*, "To leave no one in the country unvaccinated." Indeed the bill which was drawn provided much more terrible tyrannical provisions than that which the Act contains. It was proposed that the Public Vaccinator should be empowered to enter any man's house,

examine his family arms, *i.e.*, the arms of his family up to 16 years' of age, and failing to find the marks of previous vaccination, should forcibly perform it on the spot, and violent advocates of vaccination, including Lord Salisbury, have said that vaccination will never be complete until the policeman is sent with the vaccinator who should seize the child—snatch it from the arms of its mother—and “do the operation.”

The fallacy put forth by the Society referred to—on which the Act of 1853 was based, was this:—

That the decrease of small-pox since the practice of vaccination was introduced, was attributable to vaccination.

That that statement was a fallacy I demonstrated in my evidence before the Committee of 1871, in which I showed by a number of indisputable facts, that there was a general subsidence of small-pox towards the end of the last century all over Europe, wholly independent of vaccination, this arose from an unknown cause and a known cause.

The unknown cause is that which controls and regulates the visitation of severe epidemic diseases, borne by the human family. Over that cause we have no control. Plague, dysentery, elephantiasis, sweating sickness, leprosy, and other forms of malignant fever prevailed at given intervals in the last and previous centuries—they died out and are gone, but who shall say that they will not return, unless guarded against by strict regard to the sanitary condition of our cities and towns.

Small-pox had subsided gradually all over Europe as well as in England, before vaccination was thought of. The introduction of the practice of inoculation towards the middle of the last century increased the mortality to nearly double—from 56 to 96 per thousand deaths. The practice gave *new life to small-pox*, and *killed the victims*. It spread the

disease all over England and to a considerably later period, until at the beginning of the present century everybody had had small-pox. No wonder that pitted faces were so common fifty years ago!

Those pitted faces resulted from interfering with small-pox by artificial means. The practice of inoculation strongly recommended by the College of Physicians* in 1754, and practised everywhere, is now, by the Act of 1840, a penal offence, and a month's imprisonment inflicted without the option of a fine. The day is not far distant, it is to be hoped, when a similar *law will be applied to the vaccinator and inoculator alike*. Both are a violation of nature—the one a mere modification of the other. The inconsistency of punishing a parent for inoculating his child with a *human* disease and punishing him for not doing the same thing in a modified form, is an illustration of the blunders which Parliaments sometimes make when legislating on medical subjects, when, having given ear to a few doctrinaires, specialists, and experts, are induced by such interested individuals and societies to make laws which bring Parliaments into derision. The long catalogue and immense pile of sanitary acts afford an instance of Parliamentary blundering, while the "Medical Acts," made in the interest of doctors and not for the protection of the people as professedly they were, afford another example of State medicine, of which vaccination is one department, the disgraceful "Contagious Diseases Acts" another.

To return to the doctrine that vaccination protects from small-pox.

* The College of Physicians in London adopted inoculation in the year 1754, and "considered it highly beneficial to mankind."

It is surprising, after the demonstrative evidence that has been afforded on the subject in the official reports of small-pox hospitals, that this dogma is still propounded by the medical faculty, and even re-vaccination urged upon the people at intervals of uncertain dates.

The frequent recurrence of small-pox epidemics in the metropolis where vaccination has been so extensively adopted—the increased severity and malignancy of the disease according to the hospital reports, lead us to inquire—What has vaccination done?

That small-pox does not select its victims from the *unvaccinated* portion of the population is evident from the fact that from 80 to 90 per cent. of the patients admitted into hospitals are found to have been vaccinated, and only 10 to 20 per cent. of the patients are unvaccinated. How comes it, then, that the great majority are the vaccinated, if the doctrine of protection be true? It is passing strange, too, that if Mr. Simon's statement before the Vaccination Committee of 1871, that at least 95 per cent. of the population were *well vaccinated*, no fewer than 7,876 persons died of small-pox in one year (1871) in London alone.

It is no longer denied that the vaccinated do succumb to small-pox, but it is contended that a *certain amount of protection is afforded*. It is, moreover, assumed that those who recover from small-pox having been vaccinated, would probably have died had they not had *some* protection. The fact of the different degrees of natural susceptibility to small-pox, as to scarlatina, measles, and all eruptive fevers, is ignored altogether.

That which was noted by one of the best English medical historians, Sir Gilbert Blane, is as truly applicable to existing

populations as to those who lived 100 years ago. Speaking of small-pox he says :—

“To some individuals the variolous infection produces a disease so malignant that nothing can stay its fatality, while in others the *disturbance is so slight as not to deserve the name of a disease*, so that there is every intermediate shade of severity and mildness, of danger and safety, in the cases of the individuals whom it affects. It is *clearly ascertained* that there are constitutions *entirely insusceptible* of small-pox, whether casual or inoculated, so that there is a series of constitutions of every possible gradation from the insusceptible through all stages of mildness and severity to those in which it is irremediably fatal.”

“The casual small-pox is sometimes as mild as the inoculated, and the inoculated sometimes as mild as the casual.”

These sentences were penned by Sir Gilbert Blane in the days when inoculation was practised. That “modifying” and “protective” operation failed, and was abandoned later on, for vaccination from the lower animals: this has also failed, and must sooner or later be abandoned for more rational hygienic means.

It is not necessary for me to enter upon a discussion of the various pleadings of those who advocate vaccination. The theory of absolute protection (not long since universally imposed on the credulous) is now universally given up.

“Protected for ever,” were the words of Jenner when he went to Parliament seeking a reward for his so-called discovery, which was to stamp out small-pox in Europe in thirty years.

Protection is efficient by *one vesicle* only was the dogma held for two generations. That idea is abandoned, and now *four to twelve* vesicles are considered essential, protection being according to the number of marks !!!

It is stated that fewer of the vaccinated die of small-pox than the unvaccinated. My experience in thirty years of active practice has not led me to that conclusion, and in future pages the reader will find that among the deaths recorded by the Registrar-General as many or more vaccinated than unvaccinated die of small-pox.

I repeat here that which I stated to the Committee of the House of Commons in 1871—that the evidence adduced to support the theory of protection is negative and unreliable.

Let me here quote from the weekly reports of the Registrar-General for the first thirteen weeks of the year 1877, which will suffice. The figures may be verified by reference to the Registrar-General's office.

The following tables show the number of small-pox deaths in London in each of the first 13 weeks of the years 1877 and 1881—during the epidemics in London where they now recur every fourth year :—

TABLE I.

DEATHS from small-pox in London, first quarter of 1877.

Week ending.	Died.	Unvaccinated.	Vaccinated.	Not stated.
January 6 ...	116	45	40	31
" 13 ...	100	34	31	35
" 20 ...	79	32	18	29
" 27 ...	86	38	22	26
February 3 ...	103	53	14	36
" 10 ...	90	44	23	23
" 17 ...	72	28	17	27
" 24 ...	104	42	25	37
March 3 ...	84	37	23	24
" 10 ...	96	43	25	28
" 17 ...	100	42	30	28
" 24 ...	76	33	19	24
" 31 ...	86	39	15	32
TOTAL	1192	510	302	380

How are we to account for the above large proportion of *vaccinated* among the deaths?

The 1,192 deaths were certainly not selected from the *unvaccinated* portion of the population.

More than one-fourth of those that died, are admitted to have been "protected."

TABLE II.
DEATHS from small-pox in London, first 21 weeks of 1881.

Week Ending.	Died.	Vaccinated.	Unvaccinated.	Not stated.
1881.				
January 8 ...	33	4	18	11
" 15 ...	27	6	7	14
" 22 ...	42	9	28	5
" 29 ...	53	9	23	21
February 5 ...	54	10	28	16
" 12 ...	52	8	23	21
" 19 ...	55	11	22	22
" 26 ...	44	12	16	16
March 5 ...	52	13	20	19
" 12 ...	58	20	18	20
" 19 ...	43	10	17	16
" 26 ...	49	14	20	15
Total of 12 weeks	562	126	240	196
April 2 ...	56	15	27	30
" 9 ...	72	15	27	30
" 16 ...	77	15	32	30
" 23 ...	84	17	33	34
" 30 ...	70	14	21	35
May 7 ...	88	14	33	41
" 14 ...	69	11	32	26
" 21 ...	103	25	48	30
" 28 ...	92	21	39	32
Total of 9 weeks	711	147	292	288

The Table for 1881 professes to exhibit the proportion of vaccinated, unvaccinated, and not stated in the returns made to the Registrar by the Medical men in their certificates of the cause of death.

It tells us that of 562 deaths recorded in 13 weeks, 126 were vaccinated, that is, by their own showing, *22 per cent. of the whole number of deaths.*

It tells us, secondly, that there were 240 unvaccinated, which show a mortality of 45 per cent. *of the deaths.*

It tells us, thirdly, that 196 of the deaths were recorded as "not stated," carefully avoiding the words, "not known."

I have a perfect right to add these to the number recorded as vaccinated, seeing that 95 per cent. of the population are vaccinated. From what has been brought to light in reference to the returns of vaccinated and unvaccinated, there is great reason strongly to suspect that, to say the least, there is some error, if not wilful, yet probable, in the returns. Strange, indeed, that in nearly 200 cases out of 562 who died, there should be *no* evidence of vaccination in a population so extensively vaccinated as the English.

It must not be forgotten that it has been implied by Mr. Marson, in his evidence before the Committee of the House of Commons, 1871, that those cases of confluent small-pox in which the vaccine marks are obliterated, although vaccinated, are *catalogued as unvaccinated, because the cases are severe*; and in reply to Questions No. 4,322 and 4,324, Mr. Marson said referring to a large number of cases which recovered from small-pox although no cicatrix was visible, he accepted the statement of the patients that they had been vaccinated.

"*I assumed,*" said he, "*that they were protected to that extent, or else they would have died at the same rate as the unvaccinated died.*"

It will be seen in the following Table, No. III., that the epidemic in 1881 differed but slightly from the ten years average, and on comparing it with that for 1877, it will appear that the epidemic of 1881 is only half as severe as that

of 1877—the deaths in the first 13 weeks in that year, being 1,192, and in 1881, 618. No accurate comparison can be made between the two epidemics until the one now prevailing has run its course.

TABLE III.

Shewing the mortality from small-pox in London in each of the first 21 weeks of the year 1881, with the corrected average deaths for corresponding weeks in the last ten years.

First 21 weeks of 1881. *London, small-pox, weekly mortality.*

Week ending.	Vaccinated. Unvaccinated. Not stated.	Corrected average for the 1st weeks of last 10 years, 1871-80.
January 8 ...	33	36.6
„ 15 ...	27	41.9
„ 22 ...	42	47.3
„ 29 ...	53	43.8
February 5 ...	54	46.6
„ 12 ...	52	49.2
„ 19 ...	55	45.4
„ 26 ...	44	49.2
March 5 ...	52	46.9
„ 12 ...	58	44.2
„ 19 ...	43	44.6
„ 26 ...	49	42.1
April 2 ...	56	43.3
„ 9 ...	72	47.9
„ 16 ...	77	49.4
„ 23 ...	70	51.8
„ 30 ...	84	54.0
May 7 ...	88	52.6
„ 14 ...	69	44.2
„ 21 ...	103	49.2
„ 28 ...	92	49.1

Of the First Quarter of 1881 the Registrar-General reports :

The deaths from small-pox that had been 69 and 208 in the last two Quarters of 1880, further rose to 730 in the first three months of this year ; of these 730 no fewer than 652 occurred in London and its outer ring.

The number of *cases* admitted into the Metropolitan Asylums Board hospitals, which were 253 and 777 in the last

18 NUMBER OF DEATHS FROM SMALL-POX EACH YEAR.

two Quarters of 1880, rose to 2288 in the first three months of this year.

In the Highgate Hospital the figures were 22 and 57 in the last two quarters of 1880 and 223 in the first quarter of 1881.

Of the 617 *fatal* cases in London 402 were in the Small-pox Hospitals, 6 in other public institutions, and the remaining 209, or 33.9 per cent. of the total fatal cases, in private dwelling-houses.

TABLE IV.

LONDON.

DEATHS from small-pox in each year from 1838 to 1877 inclusive.

Year.	Died.	Year.	Died.
1838	3817	1854	694
1839	634	1855	1033
1840	1235	1856	531
1841	1053	1857	156
1842	360	1858	242
1843	438	1859	1158
1844	1804	1860	898
1845	909	1861	217
1846	257	1862	345
1847	955	1863	2012
1848	1617	1864	537
1849	508	1865	646
1850	498	1866	1388
1851	1066	1867	1332
1852	1159	1868	606
1853	211	1869	273
		1870	958
	16521	1871	7876
		1872	1781
		1873	115
		1874	56
		1875	75
		1876	735
		1877	2544
			26208
		Total in 24	
		years since 1853	

Total number of deaths in 16 years, before the Compulsory Vaccination Act came into operation.

Table IV. shows that in the first sixteen years of registration the number who died of small-pox in London, including four epidemics, was 16,531, giving a yearly average of 1,033. That was a period of vaccination endowed by the State since 1840.

If we take the 24 years since the passing of the Compulsory Act of 1853 we find small-pox has killed 26,208, giving a yearly average of 1,092. This included five epidemics.

The increased number of deaths from small-pox was thus found to be in a greater ratio than the increase of population.*

If we take the first ten years of registration, viz., 1838 to 1847, in which the great epidemic occurred extending over four years, we find the number died of small-pox was 11,462, giving a yearly average of 1,146.

Contrasting this with the ten years, 1868 to 1877, a period when the Compulsory Vaccination Act of 1853 had been enforced by fine and imprisonment and nearly the whole population were vaccinated, we find an enormous increase in the mortality, no less than 17,175 having died in ten years, giving a yearly average of 1,717.

This presents to us a lamentable result of *seventy years'* trial of vaccination, and nearly a quarter of a century of *compulsory* vaccination.

Reference has been made to the Report to Parliament of the Epidemiological Society, on which legislation was erroneously founded. That report was an attempt to show that the mortality from small-pox had been greatly diminished by vaccination, and also that vaccinated countries on the continent presented most valuable proof of its advantages. This latter statement will be referred to in future pages.

* A similar result was shown in England and Wales in my Vital Statistics, No. I., addressed to the President of the Local Government Board.

I proceed, therefore, first to analyse the statement of the Epidemiological Society in regard to London.

The following Table was produced to show that vaccination had reduced the mortality from small-pox, contrasting the first half of the present century with the two preceding centuries.

It must be understood that the number of deaths from small-pox was in reference to deaths from other causes, and not in reference to population or the number living. It is important to bear this in mind, as the proportion of deaths from one disease to 1000 deaths is no index of the general mortality prevailing at the time, and there is reason to believe that the whole mortality was little affected by the prevalence of either one or other of the seven epidemics then, any more than it has been in more recent times.

Table V. showing the number of small-pox deaths per 1,000 deaths in decades of years :—

Periods of Ten Years, Ending	Small-pox Deaths per 1,000 Deaths.	Average Mortality.	Description.
1660 1670 1680 1690 1700	48 36 71 74 51	56	No protection
1760 1770 1780 1790 1800	100 108 98 87 88	96	Inoculation.
1820 1830 1840 1850	42 32 23 18	29	Vaccination

The Table is defective inasmuch as a half-century of statistics are omitted, viz., between 1700 and 1750, and also twenty years between 1800 and 1820. The reason assigned for excluding these twenty years is stated to be because "in those years inoculation and vaccination were both practised."

It happens, however, that in the decade ending 1810, when there was a mingling of the two inoculatory processes, small-pox and cow-pox, the deaths were nearly double those in the decade ending 1670 and above the average of the half-century ending in 1700. The omission of the years in the two decades ending 1820 is to be regretted.

The most startling fact presented in the table is the increased mortality through the practice of inoculation introduced in the year 1822, and continued into the present century, when the cow-pox was substituted for small-pox.

It will be seen in the following Table that by the insertion of the decade 1800 to 1810 the more gradual subsidence of small-pox is made apparent, the mortality in that decade being 64. Including those years in the following category, thus completing the first half of the present century, the rate was not 29 but 36 to a thousand deaths. The following Table VI. shows the addition :—

TABLE VI.

Showing the comparative mortality from small-pox, in decennia periods—before the discovery of inoculation, during the practice thereof, and under vaccination.

Periods of Ten Years.	Small-pox Deaths per 1,000 Deaths.	Comparative Numbers.	Description.
1650...1660	48	} 56	No protection
1660...1670	36		
1670...1680	71		
1680...1690	74		
1690...1700	51		
1750...1760	100	} 96	Inoculation
1760...1770	108		
1770...1780	98		
1780...1790	87		
1790...1800	88		
1800...1810	64	64	„
1810...1820	42	} 29 } 36	Vaccination
1820...1830	32		
1830...1840	28		
1840...1850	18		

In the Table above I have inserted the decennial period 1800 to 1810, omitted by the Epidemiological Society.

The following extracts from the work of Sir Gilbert Blane further show the increase of small-pox by inoculation. That renowned historian boldly asserts his conviction that the artificial production of small-pox by vaccination spread the disease all over England, introducing small-pox into localities which it had never previously visited.

Table VII. showing the mortality from small-pox to the total mortality, as recorded by Sir Gilbert Blane :—

TABLE VII.

1st Series	from 1706 to 1720	... ..	78	in 1,000
2nd	„ from 1745 to 1759	... ..	89	in 1,000
3rd	„ from 1785 to 1798	... ..	94	in 1,000
4th	„ from 1804 to 1818	... ..	53	in 1,000

The 1st series is for the 15 years immediately preceding the introduction of inoculation.

The 2nd is taken at the middle of the last century when inoculation had made considerable progress.

The 3rd comprises the 15 years previous to the introduction of vaccination, when *inoculation* had made *still greater progress*.

The 4th comprises the time in which the *vaccine* inoculation has been so far diffused as to produce a notable effect on the mortality of small-pox.

The foregoing Table, though not arranged in precisely the same dates as the two previous Tables, coincides generally with them as to results. The fact of the increased mortality by inoculation is manifest.

It is thus seen that at the close of the last, and the commencement of the present century, small-pox declined gradually in England.

That this was not the result of vaccination is clear, but arose from two distinct causes: Firstly, from the general subsidence of all febrile and malignant diseases; and, secondly, by the gradual and general abandonment of inoculation.

The general subsidence of mortality from malignant fevers in the 18th century in England is admitted by all authors.*

* See my Essay on Vaccination. "Its tested effects on Health, Mortality, and Population." Bailliere: London and Paris.

Dr. Willan says: "The decrease from the year 1750 is to be imputed partly to the increased system of cleanliness which was then adopted, and partly to the diminution of the use of "spirituous liquors, in consequence of the 'Gin Act,' passed in "1753."

*from Coll. of
Tables. Sect.
the Publ. Surveill
2. p. 614*

Dr. Farr prepared a Table showing the decline of fevers, small-pox, plague, dysentery, &c., in the Eighteenth century so remarkable in London. The Table furnished by Dr. Farr, (of the Registrar-General's Department), London, exhibits this, and also shows the increased mortality from small-pox by the practice of inoculation. Hence in the

Years		per 100,000 Living
1629-35	the small-pox mortality was	180
1660-79	" " " "	417
1728-57	under inoculation	{ 426
1771-80			{ 502
1801-10	it fell to	204
1831-35	" "	83
1840-54	" "	40

Towards the end of the last century, Dr. Heberden, said:—

"Inoculation, despite its advantages to individual life, was becoming a serious evil to Society. An admirable, and till then unrivalled, invention, it could only be worked at an intolerable cost of life."

"The historian of small-pox looking back on the labours which during twelve centuries had been made to mitigate its ravages comes to a mournful conclusion on their value. The confession that must be made is mortifying to a professional man, for it appears in spite of all medical exertion, the mortality of small-pox has progressively augmented.

"It has been made evident by calculations from the Bills of Mortality of the City of London, renowned for medical science,

that at the beginning of the eighteenth century about one-fourteenth of the inhabitants died of the small-pox, and during the last thirty years of that century, when the practice in small-pox was highly improved, the mortality of the disease was augmented to *one-tenth*. Thus the practice of inoculation made matters worse."

In 1801, the same author, in his work, entitled, "Observations on the Increase and Decrease of different Diseases," at page 36, says:—

"In London more persons have died of small-pox since the introduction of inoculation. Out of every 1,000 deaths in the Bills of Mortality attributed to small-pox during the first 30 years of the 18th century, before inoculation could have had any effect upon them, they amounted to 74. During an equal number of cases at the end of the century they amounted to 95 in the 1,000, an increase of no less than 30 per cent. by that interference by inoculation."

Let me now direct attention to the contrast between the eighteenth and nineteenth centuries in London. Overcrowding and want of cleanliness were the two principal causes in the development and spread of febrile and other diseases which carried off such large numbers in the 17th and 18th centuries.

Lord Macaulay, in his history, describes the filthy condition of the City of London. No soap, a very scanty supply of water; the floors covered with rushes, only changed once or twice a year. No wonder that small-pox and plague were so malignant.

Overcrowding was the chief cause. The result is seen still in many of the purlieus of London, and the difference of mortality between the East and West-end is mainly owing to this cause, as in Liverpool and other large densely-populated cities.

Had Parliament made an enactment limiting the number of persons to the acre, how much of the past and present mortality would have been prevented!

I find in my researches that in the year 1631 there was in the City of London a population of 130,178 inhabitants, packed closely together day and night within and without the walls; the number of persons to the acre was 80, the area within the walls was 1,660 acres. In the year 1700 the population had increased to 208,300, being 126 persons to the acre. London grew and fortunately extended its suburbs over such an extent that although in the year 1841 the population had reached nearly two millions (1,948,369) the number of persons to the acre was only 25. In 1847 the area of London was still further extended. In 1851 the population had increased to 2,373,799, still avoiding overcrowding; but, alas! such is the rapidity with which London increases that in 1871 the population had risen to 3,254,260, in a space measuring 122 square miles, and even then the average number of persons to the acre was 42.

1640 to the
2. mile

The number of inhabitants to the square mile in London was—

In 1851	...	...	...	...	...	...	...	19,363
,, 1861	...	...	...	...	...	...	...	22,984
,, 1871	...	...	...	...	...	...	...	26,674

For the purpose of comparison London has been divided into five districts, and here we find that where there is the largest mortality, there are the inhabitants most crowded together.

The following shows the increased density of population in the two periods selected: the population to the area being—

Districts.	In year 1841.	In year 1871.
Western	27	52
Northern	28	56
Central	172	150 ³²
Eastern	66	107
Southern	11	21

The census for the year 1881 may throw further light on this most important subject of overcrowding, and enable us to determine to what extent it contributes to the production and spread of febrile diseases of an epidemic character, or including all those classed as zymotic.

I submit that we should leave out of consideration altogether the statistics of the last and previous centuries, and take the experience of the present century—the advent of vaccination—especially as legislative measures have been enacted to enforce an experiment the result of which I undertake to demonstrate has been a failure.

Vaccination was purchased by Parliament for thirty thousand pounds of the public money early in the present century, endowed under the Act of 1840, which, while endowing vaccination, made inoculation a penal offence.

In 1853 vaccination was made compulsory, founded, as before stated, on a statement of the Epidemiological Society.

The experiment of inoculation, continued for a period of seventy years, proved an utter failure as regards mitigating small-pox.

* Diminished in the central district in which the City proper is included.

Full seventy years have now been expended in a similar inoculation mania in the name of vaccine. This also has proved a failure. The time will come when it, like inoculation, will be made a penal offence.

TABLE VIII.

The following Table shows the deaths from small-pox in London per million living, from 1838, the first year of registration, to 1869, with the number of deaths from all causes.

LONDON.

	1 3 years 1838-40	2 4 years 1841-4	3 5 years 1845-9	4 5 years 1850-4.	5 5 years 1855-9	6 5 years 1860-4	7 5 years 1865-9
All Causes ...	25719	23580	25854	24201	23077	24074	24449
Small-pox ...	1013	454	387	300	237	281	276
Deaths by all Causes of Children under five years of age per million living under five ...	88343	81893	85623	78738	78949	80713	82742

General Register Office,
Somerset House, 8th May, 1871.

GEORGE GRAHAM,
Registrar-General,

The small-pox death-rate for England and Wales is less than in the Metropolis, it being for the four periods in cols. 4, 5, 6, 7, respectively 274, 198, 190, 145.

PART II.—ENGLAND AND WALES.

In the foregoing pages I have endeavoured to place before the reader, a comprehensive statement of facts which stand as fixed historical truths, together with a brief exposition so necessary to the proper understanding of dry figures. I felt it to be necessary, in order to refute the arguments and statements made by the supporters of vaccination, to present such an array of facts as should establish the premises on which I take my stand—viz., that the subsidence of small-pox at the commencement of the present century which had gradually taken place before inoculation was introduced (see Table V.), was *not due to vaccination* as was inferred by the Epidemiological Society from the returns furnished from foreign countries.

That fatal error led the Legislature, prompted by some half-dozen interested individuals composing the Epidemiological Society, blindly to enact a stringent law of compulsion,* although for 23 years vaccination had been endowed by the State, the poor-rate being charged with all the fees and expenses connected with vaccination. Gratuitous vaccination was provided for all who presented themselves for the

* See in Appendix brief history of Vaccination Acts.

operation* to the Public Vaccinator, who was a properly qualified medical man.

Having disposed of the first portion of this essay referring to London, I now proceed to give some information concerning England and Wales, noting the provincial cities and towns.

In Vital Statistics, No. I., I gave the number of deaths from small-pox, erysipelas and syphilis for 25 years, including also the number of deaths from all causes; the births and also the number of vaccinations in proportion to births.

The following extract was so startling that even the faculty, to a considerable extent, confessed their surprise at the unexpected result. The few figures which were the undeniable expression of facts demonstrated that, as vaccinations increased, small-pox deaths multiplied. It disappointed those who anticipated a diminution of deaths as vaccinations were multiplied. Those seventy thousand deaths, it should be borne in mind, were not selected from the *unvaccinated* portion of the population.

Vaccination was made compulsory by an Act of Parliament in the year 1853; again in 1867, and still more stringent in 1871. Since 1853, we have had three epidemics of small-pox.

	Date.	Deaths from Small-pox in England and Wales.
1st Epidemic—	1857-58-59	... 14,244
2nd ,,	—1863-64-65	... 20,059
3rd ,,	—1870-71-72	... 44,840

* Inoculation with small-pox and cow-pox was done by means of a darning-needle by thousands of old women, and done effectually. To-day I find in the Ninth Annual Report of the Local Government Board that no vaccinator can legally act as such unless he has the double qualification of surgeon and physician!!!

Increase of population from 1st to 2nd epidemic... 7 per cent.
 Increase of small-pox in the same period... nearly 50 per cent.
 Increase of population from 2nd to 3rd epidemic ... 10 per cent.
 Increase of small-pox in the same period... ...120 per cent.

In the year 1857, Mr. Simon, in his "Papers on Vaccination," before referred to, said :—

"In large part, vaccination is *certainly good*, otherwise small-pox could not, within half a century, *as it has been, rendered comparatively infrequent and innocuous.*"

The Tables in my letter to Mr. Sclater-Booth, demonstrated the fallacy of this remark. A study of those tables will show the increased mortality from small-pox, and that in an increasing ratio, as seen in the above extract. So far from the disease having been rendered comparatively infrequent and innocuous, there died in *London alone*, in the year 1871, no fewer than seven thousand, nine hundred and twelve persons, showing a death-rate of no less than 2,430 per million living.

Mr. Simon stated that the death rate of small-pox had been reduced by vaccination to 158 per million.

The following extracts from the official returns show what a frightful mortality occurred in some of the principal towns in England (see Tables IX. and X.) The Table IX. might be extended, however, and the death rate of all the towns given, the few selected show what ravages small-pox made in a vaccinated population. Where the vaccination laws have been forced with severity, the mortality exceeded even that in the metropolis :—

TABLE IX.

DEATHS FROM SMALL-POX PER MILLION PERSONS LIVING
 IN THE YEAR 1871.

Norwich	3,040
Liverpool	3,900
Wolverhampton	4,140
Newcastle-on-Tyne... ..	5,400
Sunderland	8,600

In the year 1872 (the epidemic continuing) the disease was equally fatal:—

Wolverhampton	2,600
Nottingham	2,320
Sheffield	2,420
Leicester	3,150
Norwich	3,900
Portsmouth... ..	4,390

TABLE X.

Table of Small-pox Mortality in the 18 Chief Towns of England in the years 1871 and 1872, showing the number of deaths, with the rate per million living.

Name of Town.	Population.	Small-pox.	
		Deaths in the Year. 1871	Deaths per million persons living.
London	3,263,872	7912	2430
Portsmouth	113,450	39	340
Norwich	80,533	245	3040
Bristol	183,298	45	240
Wolverhampton	68,476	284	4140
Birmingham	344,980	61	170
Leicester	95,882	11	110
Nottingham	86,929	144	1650
Liverpool	494,649	1919	3900
Manchester	351,488	267	750
Salford	125,422	227	1800
Oldham	*	*	*
Bradford	146,987	5	...
Leeds	260,657	48	160
Sheffield	241,507	406	1680
Hull	122,266	57	460
Sunderland	98,797	850	8600
Newcastle-on-Tyne... ..	128,677	695	5400

* No weekly returns for Oldham before 1872.

Name of Town.	Population.	Small-pox.	
		Deaths in the Year. 1872.	Deaths per million persons living.
London	3,311,298	1786	540
Portsmouth	115,455	508	4390
Norwich	81,105	317	3900
Bristol	186,428	209	1120
Wolverhampton	69,268	180	2600
Birmingham	350,164	298	820
Leicester	99,143	313	3150
Nottingham	88,225	205	2320
Liverpool	499,897	50	100
Manchester	352,759	75	210
Salford	127,923	41	320
Oldham	84,004	26	300
Bradford	151,720	32	210
Leeds	266,564	268	100
Sheffield	247,847	601	2420
Hull	124,976	216	1720
Sunderland	100,665	54	540
Newcastle-on-Tyne... ..	130,764	135	1030

I now proceed to notice an official statement of the small-pox mortality in the whole of England and Wales—taking London again as the chief city, containing a larger population than any one of the ten divisions into which England is divided, and the eleventh division—Wales.

In the next Table it will be perceived that those districts in which there is the greatest number of populous towns, the mortality is highest. Of these the Northern district, No. 10, stands at the head both in 1871 and 1872, and far higher than London. The North-Western district also presents a heavy mortality.

As the population of each district is given in the first column, and the actual number of deaths in the second column, the third column, showing the death-rate per million living may be tested.

Were it desirable to ascertain the proportion of deaths from small-pox to each thousand deaths from all causes, according to the plan adopted by the Epidemiological Society, in their report referred to at the commencement of this essay, I could add the necessary figures, but the fallacy of the deductions from such a basis is so misleading, that I omit them purposely to avoid burdening the facts with useless means of comparison. In a future portion of the work this will be demonstrated.

TABLE XI.

Tables showing the deaths from Small-pox in England and Wales in the Eleven divisions, in the years 1871 and 1872; and the death-rate per million living.

Division.	Population.	Deaths from Small-pox. 1871.	Small-pox Deaths per million living
1. LONDON	3,254,260	7912	2430*
2. South Eastern	2,167,726	993	450
3. South Midland	1,442,654	617	420
4. Eastern	1,218,728	759	620
5. South Eastern	1,880,777	896	470
6. West Midland	2,720,669	1044	380
7. North Midland	1,406,935	554	390
8. North Western... ..	3,389,044	3597	1060
9. York	2,395,569	1023	470
10. Northern	1,414,234	4646	3280
11. Welsh	1,421,670	1085	760
England and Wales ...	22,712,266	23126	1024

TABLE XII.

Division.	Population.	Deaths from Small-pox. 1872.	Small-pox Deaths per million living
1. LONDON	3,255,260	1786	540
2. South Eastern... ..	2,167,726	1050	480
3. South Midland	1,442,654	878	610
4. Eastern	1,218,728	1067	870
5. South Western	1,880,777	1142	610
6. West Midland... ..	2,720,669	3838	1410
7. North Midland... ..	1,406,935	1853	390
8. North Western	3,389,044	864	250
9. York	2,395,569	2443	1010
10. Northern	1,414,234	2040	1440
11. Welsh	1,421,670	2133	1500
England and Wales	23,000,000	19094	833

NOTE.—In the Report of the Medical Officer of the Privy Council, the deaths per 100,000 are given. For the purpose of accurate comparison, and for uniformity I have adopted the rate *per million living* as advised by Dr. Farr, late of the Registrar-General's department.

TABLE XIII.

Mean annual rates of deaths from Small-pox per million living in England and Wales, from 1838 to 1879.

5 years—1838-42	571
*1843-4-5-6 (No returns published)	
3 years—1847-9	303
5 years—1850-4	279
5 years—1855-9	199
5 years—1860-4	190
5 years—1865-9	147
5 years—1870-4	433
5 years—1875-9	511 82

* For the years 1843-4-5-6 no returns were issued except for London

1 year—1870	...	...	...	118
„ 1871	...	...	...	1,024
„ 1872	...	...	...	833

The above Table XIII. shows the small-pox death-rate per million living in England and Wales, from 1838 to 1879. It will be noticed that the death-rate was one-thousand and twenty-four per million living in 1871 in England and Wales. In the metropolis it reached the enormous rate of two-thousand four-hundred and thirty per million living.

The following Table XIV. is extracted from the Blue Book, (Report of Committee 1871), furnished to the Committee at the suggestion of Mr. John Simon, Medical Officer of the Local Government Board.

It is important shewing that, which I had stated, and to which Mr. Simon took exception, that in the five years, 1838-42, which included the most severe epidemic of small-pox in the present century, the deaths from all causes were 700 fewer when the small-pox killed 571 per million of the inhabitants than in the five years, 1865-69, when small-pox killed only 145 per million. It is to be noted also that the deaths of children per million living under five years of age were nearly *four thousand fewer* when small-pox carried off so many as 571 per million, against 145 per million.

TABLE XIV.
Mean Annual Death-rates from Small-pox and all Causes per Million Living—1838 to 1879.

ENGLAND AND WALES.

Causes of Death.	Five Years 1838-42.	Three Years 1847-9.	Five Years 1850-4.	Five Years 1855-9.	Five Years 1860-4.	Five Years 1865-9.	Periods of Five Years, 1870-74 | 1875-79.	
All Causes ...	22069	24204	22317	22085	22263	22754	82 84 433	
Small-pox ...	571	303	274	198	190	145		
Deaths by all causes of children under five years, of age per million living under five	65772	69353	68310	68987	67873	69212		
Somerset House, 8th May, 1871.							GEORGE GRAHAM, Registrar-General.	

Since the forgoing Table was prepared with the avowed object of refuting my evidence before the Committee, in reference to the fact that the prevalence of small-pox does not increase but diminishes the general mortality, I have obtained additional returns, extracted at the office of the Registrar-General, by the courtesy of Dr. Ogle, who has succeeded Dr. Farr in the department. The additional two columns are seen on the right hand in Table XIV.

It will be seen from the above added figures that the death-rate of small-pox has greatly increased, being heavier than all the averages since the great epidemic, 1838-42.

The following Table XV. is introduced here, to shew how insignificant is the mortality from small-pox compared to the numbers which die of measles and scarlatina. It is extracted from the Registrar-General's Report, 1879-80.

in the 5 years 1870-4

TABLE XV.

TABLE XV.											
Mean Annual Death-rate in England, per million living of the three principal Infantile Exanthemata.											
30 Years.		Periods of Five Years.						Single Years.			
		1850 } 1854 }	1855 } 1859 }	1860 } 1864 }	1865 } 1869 }	1870 } 1874 }	1875 } 1879 }	1877.	1878.	1879.	1880.
Small-pox...	222.	279.	199.	190.	147.	433.	344. 82.	175.	75.	21.	Not yet issued.
Measles ...	414.	406.	412.	478.	451.	392.	722.	370.	313.	366.	
Scarlatina ...	1007.	800.	1103.	1189.	1001.	1044.	852.	591.	761.	701.	

TABLE XVI.

Mean death-rate of small-pox in England and Wales per million living in each year, 1864 to 1879, shewing the fluctuation in the numbers from year to year.

Years.	Small-pox Deaths per Million living.	Averages of 5 years.
1864	273	147·8
1865	309	
1866	144	
1867	118	
1868	96	
1869	72	433·8
1870	118	
1871	1024	
1872	833	
1873	102	
1874	92	82 314·2
1875	40	
1876	100	
1877	175	
1878	75	
1879	21	

Here I may remind the reader that small-pox, like all other epidemics, affects certain localities one year, and, leaving these, travels, so to speak, to fresh fields prepared for its visit by insanitary conditions of peoples and places.

Reference has been made to the evidence given by Mr. Simon, Medical Officer of the Privy Council and the Local Government Board, in respect to the complete vaccination of the people. Mr. Simon stated that in 1853 the people must have *been fairly vaccinated, as the mortality was so small.*

In 1881 we are told that the prevalence and fatality of small-pox leads to the inference that there must be a great amount of bad vaccination. It is no longer contended that there is a lack of duty on the part of the vaccinator, as it cannot be denied that the masses of the people who get

small-pox are vaccinated. In order to avoid any dispute on this head, I append Tables XVII. and XVIII., compiled from the Ninth Annual Report of the Local Government Board, 1879-80.

TABLE XVII.

Vaccinations—Number of Successful Primary Vaccinations performed in England by the Public Vaccinators from 1873 to 1879.

Year Ending 29th September.	Number of Registered Births.	Number of <i>Successful</i> Primary Vaccinations.		Rate per Cent. of <i>Successful</i> Primary Vaccinations to Births.	
		At all Ages.	Under One Year of Age.	At all Ages.	Under One Year of Age.
1873	832255	501189	469538	60·2	56·4
1874	845286	493285	470256	58·4	55·6
1875	853049	498952	475539	58·5	55·7
1876	881518	506587	486031	57·5	55·1
1877	881897	579376	498577	60·0	56·5
1878	892823	513575	494028	57·5	55·3
1879	884995	519715	500646	58·7	56·6

Wilson

The following return shows the continual successful working of the Act of 1871:—

TABLE XVIII.—(Returns 1877.)

	Births.	Successfully Vaccinated.	In susceptible of Vaccination.	Had Small-pox.	Dead Unvaccinated.	Vaccination Postponed.	Remaining.	Percentage of Children not finally accounted for, including Cases Postponed.
England and Wales.	887947	766824	926	118	79497	6681	33901	4.5
Ditto Excluding Metropolitan Unions.	759912	659354	532	57	68593	5372	26004	4.1
Metropolitan Unions.	128035	107670	394	61	10904	1309	7897	7.1

* Of the 887,947 births, 766,824 (being 86.3 per cent. of the whole) were registered as successfully vaccinated. The numbers having died before they were vaccinated were 79,497, (or 8.9 per cent. of the whole of the remaining 41,626 children) 926 or 0.2 per cent. had been registered as insusceptible; 118 contracted small-pox. Of the remaining 808,450 children there WERE REGISTERED AT THE TIME OF THE RETURN 94.85 PER CENT. AS SUCCESSFULLY VACCINATED.

PART III.—SCOTLAND.

Having in the foregoing chapters disposed of England and Wales, including the metropolis of England, I now proceed to direct attention to the condition which Scotland presented, when the epidemic of small-pox reached that country in 1871.

Witnesses who gave evidence before the Select Committee on the Vaccination Acts in 1871, stated that so perfect was vaccination in Scotland that small-pox was stamped out. In the year 1866 only 200 died —

In 1867	...	100
„ 1868	...	15
„ 1869	...	64

“See what vaccination has done,” said Dr. Wood.

In giving evidence before that Committee, I was asked the following Question, No. 1,239.—“Is it your idea that in spite of the 95 per cent. who are vaccinated in Scotland, the epidemic will still extend there?”

My reply was: “Yes; Acts of Parliament will not keep away epidemics.”

To Question No. 1,238, I replied: “I did not expect the epidemic in Scotland until next year, but I now think it is due this year. I predicted 1870 in England, and it came in due course, and is now among us.”

I also warned the Committee that small-pox would not spare the vaccinated. What happened? The epidemic did reach

Scotland in 1871, and the small-pox deaths which in 1870 were 114, now rose to 1,442, and in the year 1872 no less than 2,488.

Dr. Wood, of Edinburgh, gave evidence before that Committee. Dr. Wood is a Fellow of the Royal College of Physicians, and has been its President. He is also a Member of the General Council of Medical Education, under the Medical Act of 1858.

In 1863, the Scotch Compulsory Vaccination Act was "passed. To Question 4,366, Dr. Wood replied: "Since the "Compulsory Vaccination Act, there is a decided diminution "of small-pox; in fact, we have had no epidemic of small-pox "in Scotland since the passing of the Vaccination Act on the "28th of July, 1863 (eight years ago)."

In reply to Question 4,389, Dr. Wood says: "*The operation "of the Act of 1863 has very largely diminished the amount of "epidemic small-pox. Both the Registrar-General in his reports, "and the Board of Supervision have testified to the extreme "value of the Scotch Act.*"

To Question 4,390, he replied: "There is no reason to believe "that the protection afforded by vaccination has diminished, or "the least occasion for any fear that it will ever regain its "former power."

To Question 4,471, he said: "The amount of small-pox "mortality in Scotland in the last few years, has very markedly "diminished as the result, I believe, of a more perfect system "of vaccination, resulting from putting into operation of the "Act of 1863."

Dr. Wood is one of those zealots who, like Dr. Corrigan, of Dublin, whose opinion can no more be moved by facts than the Great Pyramid.

To Question 4,497, he made use of an extraordinary phrase : "I do not think," he said, "that a person has a right to keep *an unvaccinated child any more than a fierce dog.*"

This exceeds in absurdity, the folly displayed by Sir Dominic Corrigan, M.D., who compared an unvaccinated child to a bag of gunpowder.

The Third Annual Report ^{on Vaccination} of the Registrar-General of Scotland says : "Never since Civil Registration began in Scotland, has small-pox been so rare as during the past three years, when the Vaccination Act was in full operation."

Dr. Playfair, Professor of Chemistry, a Scotchman, said in the House of Commons, July 6, 1870 : "There could not be the slightest doubt that compulsory laws when properly applied as in *Scotland and Ireland*!! were perfectly equal to stamp out small-pox in a country."

We shall presently see what the opinions of those scientific men and doctors are worth.

Let us leave opinions and go to facts.

Table XIX. exhibits the yearly deaths from small-pox in Scotland, from 1855 to 1872. It will be seen that the boasted stamping out under the Compulsory Act of 1863, was not true.

How prone are the vaccinators to cry out in the absence of an epidemic, when the mortality is low, "*See what vaccination has done!*"

In the epidemic of 1871-2, three-thousand, nine-hundred and thirty were carried off. See the following Table.

TABLE XIX.

Small-pox Deaths in Scotland, in each year, from 1855 to 1872, inclusive.

Year.	Deaths.	Year.	Deaths.
	<i>See Mull.</i>		
1855	1309 <i>420</i>	1864	1741 <i>520</i>
1856	1306 <i>438</i>	1865	383 <i>120</i>
1857	845 <i>280</i>	1866	200 <i>662</i>
1858	332 <i>197</i>	1867	100 <i>31</i>
1859	682 <i>224</i>	1868	15 <i>5</i>
1860	1495 <i>490</i>	1869	64 <i>20</i>
1861	766 <i>249</i>	1870	114 <i>34</i>
1862	426 <i>137</i>	1871	1442 <i>423</i>
1863	1648 <i>527</i>	1872	2488 <i>730</i>
		1873	1126 <i>356</i>
		1874	1226 <i>360</i>
		1875	76 <i>22</i>
		1876	29 <i>12</i>
		1877	35 <i>13</i>
Compulsory Act passed in	1863		

Table XX. exhibits the number of deaths from small-pox in the year 1872, the ages at death, and the percentage of each age.

Here we find that nearly one-fourth, that is 22·6 per cent. were under five years of age, and this, nine years after the Compulsory Act, and the perfect vaccination of 95 per cent. of the whole births had been successfully performed.

TABLE XX.

Showing the number of Deaths from Small-pox in Scotland in the year 1872, and proportion at different ages.

No. of Deaths at each age.	Percentage at each age.
Under 5 years 552	22·6
5 to 10 years 228	9·3
10 to 15 years 231	9·4
15 to 60 years 1384	56·5
Above 60 years 53	2·2
Total 2448	Total ... 100

Table XXI is extracted from the Annual Report of the Registrar-General, Scotland, for 1876, of the proportion of deaths from small-pox to one million living.

The mortality in several of the large towns exceeded that of London in 1871.

In Leith the death rate was 4,670 per million living, while in London it was 2,430 per million.

TABLE XXI.

From the Detailed Annual Report of the Registrar, Scotland, 1876, for year 1872.

SMALL-POX.

Proportion of Deaths to One Million Living.				To every 1,000 Deaths from all Causes.
SCOTLAND	...	...	740	33·2
Principal Towns	...	...	1430	52·
Large Town Districts	...	...	350	13·8
Small „	„	...	480	22·3
Mainland Rural „	„	...	390	22·8
Insular „	„	...	170	10·9
Glasgow	...	...	310	10·8
Edinburgh	...	...	3530	132·
Dundee	...	...	2420	86·6
Aberdeen	...	...	1450	61·6
Greenock	...	...	150	5·5
Paisley	...	...	190	6·4
Leith	...	...	4670	167·1
Perth	...	...	650	29·2

96 p.c. vacc

Table XXII. shows the percentage of vaccination to the surviving births of each year for 1864, (after the Compulsory Act came into operation) to 1872.

TABLE XXII.

VACCINATIONS IN SCOTLAND—1864—1872.

Giving the proportion of the Vaccinated to the surviving births of each year.

Year.	Percentage.
1864	95.361
1865	96.089
1866	96.329
1867	96.609
1868	96.292
1869	96.027
1870	96.362
1871	96.241
1872	96.565

Mr. W. Pitt Dundas, the Registrar-General, Scotland, thus writes, addressed to the Right Hon. R. Assheton Cross, M.P. :

“ August 7, 1876.

“ The Vaccination Act continues to work very efficiently in Scotland. Those entrusted with its administration do not find their efforts for the public good thwarted by any unpopular prejudice. On the contrary, the people seem to have an *intelligent appreciation of the benefits which the practice of vaccination secures for them.*”

I have thus demonstrated the utter inutility of vaccination against small-pox when an epidemic visits a country or city. When there is no epidemic, the people are lulled into a feeling of false security by a wanton unnatural operation, while neglecting their duties in regard to sanitary matters.

Surely the age of false prophets has not yet passed away !
So much for well-vaccinated Scotland.

PART IV.—IRELAND.

I now come to the Sister Isle, and there, also, the same untoward results as those just related of Scotland are presented.

Ireland has been often quoted as an instance of the success of vaccination, by “authorities.” Heaven save the mark! “*Authorities?*” The ignorance displayed by some of the members of the Committee of 1871, as well as the witnesses, would be sufficient, on any other subject, to brand them as “blind leaders of the blind.”

Let me recall some few examples by quotations from the Minutes of Evidence, and compare the opinions of the advocates with the stern facts which I now educe.

It was only natural that I should be first asked respecting my opinions, knowing as the Committee did, that I am against vaccination altogether. In my examination by that Committee, the following question was put to me (on the 10th of March).

Question 1,141.—“Then if I understand you rightly, the statement that I have often seen of late that Ireland is free from small-pox, because it is more completely vaccinated than England, is not a true statement?”

Answer.—“It is not founded on fact.”

[In answer to previous questions I had furnished the official statistics.]

Question 1,143.—“Can you tell me, then, how it is that vaccination should be thought to prevent small-pox in Ireland,

and yet that in spite of vaccination, we have an epidemic in this country at this time?"

Answer.—“Simply from an absence of the epidemic. In all probability, following the epidemic wave which is now passing over Europe, Ireland next year, or even this year, will present a very heavy mortality from small-pox.”

On the 28th of April, 1871, Sir Dominic Corrigan, M.D., was examined by the Committee, with the following result.

Question 4,002.—“Do you take it that the great freedom from small-pox and from deaths, from that disease in Ireland, is at all owing to the way in which vaccination has been carried out in that country?”

Answer.—“I think the true state is, that vaccination has been carried out very well, and that the people are most favourably disposed towards it. . . . The feeling of the whole country is in favour of it.”

Dr. Corrigan was one of the members of the Committee selected by Mr. W. E. Forster. Dr. Brewer and Dr. Lyon Playfair were also members of that Committee.

As usual the absence of small-pox was attributed to vaccination having been so superior in Ireland, and the people so obedient, that, in the opinion of Sir Dominic Corrigan, M.D., no compulsory action was needed by his countrymen (see Questions 4,002 to 4,008 in evidence.)

It does seem monstrous that notwithstanding the abundance of evidence of the failure of vaccination, its advocates still persisted in demanding a more stringent Act of Parliament to enforce it. A bill has since passed into law.

Since the epidemic belied those opinions, a pamphlet, entitled, “ON THE PREVALENCE OF SMALL-POX IN DUBLIN, by THOMAS W. GRIMSHAW, M.A., M.D., has been published, the substance of which pamphlet appeared in the *Dublin Journal of Medical Science*, June, 1878.

Dr. Grimshaw's reason for bringing his papers under the notice of the Medical Society of the College of Physicians, "was to show in a most conclusive manner the great benefits "which vaccination has conferred on the community."

In Table I., given by Dr. Grimshaw, the average annual number of deaths from small-pox in IRELAND in the decade, 1851-61, was 1,273; and in the decade, 1861-71, was 411.

The Compulsory Vaccination Act, and the Act for the Registration of Births and Deaths in Ireland, both came into force on the 1st of January, 1864. Prior to that date there were no reliable statistics. "During the last decade, 1861-71, "the most important change took place in the vaccination laws. *The result of the enforcement of this Act is "remarkable, for during the decade the mortality from small-pox fell from 1,273 to 411."*

Dr. Grimshaw says: "These statistics show that the deaths from small-pox have decreased in the decade, 1861-71, and are accounted for in a most satisfactory manner by the *progress of vaccination*. He attempts to make the public believe not only that vaccination diminishes the mortality, but that it prevents the recurrence of epidemics.

It is lamentable that the advocates of vaccination should be guilty, as they are, of suppressing facts in order to sustain their theory by patented statements.

When Dr. Grimshaw published his paper, he must have been in possession of the official statistics published in the annual report of the Local Government Board for Ireland, published in 1874, and which includes the mortality from 1864 to 1873.

Indeed, at page 6 of his pamphlet, he gives the number of deaths from small-pox in Ireland, in each year, from 1864 to 1877, comprising a period of fourteen years, thus:—

TABLE XXIII.

Year.	Deaths from Small-pox.	Year.	Deaths from Small-pox.
1864	854	1871	665
1865	461	1872	3248
1866	194	1873	504
1867	21	1874	569
1868	23	1875	539
1869	20	1876	21
1870	32	1877	61

Here we have facts furnished under the Registration Act, of 1863, and it is notable how disappointing must be the truth when it comes out.

Dr. Grimshaw makes his decade end, as given above, in 1871. Why he excluded the following six years can only be interpreted by inferring that the including of those years of increased mortality would have shown the fallacy of his assertions.

Let us take these fourteen years and divide them into two equal periods:—

In the first seven years,	{	Small-pox deaths.
1864 to 1870	}	1,605
In the second septenniad	{	
1871 to 1877	}	5,607

Dr. Grimshaw tells the Medical Society that “in 1864 a “serious epidemic of small-pox (causing 854 deaths) prevailed, “which had commenced in the previous year. The enforce-
“ment of the new Act, and the panic caused by the epidemic, had

“stimulated vaccination to such an extent that 191,810 persons were vaccinated by the Dispensary Medical Officers during the year ending September, 1864. *The number of vaccinations exceeding considerably the number of births registered.* The result of this activity in vaccination was a diminished prevalence of small-pox, the deaths from this disease falling to 461 in 1865, and further falling the next year when the epidemic ceased.”

Here we have a reiteration of the old, oft-told story—“See what vaccination has done”!! When the epidemic, in this instance, as in every other, had subsided by a natural law, *i.e.*, when it had prevailed for about two years it died out*, and immediately the vaccinators exultingly exclaimed, “See what we have done!! We have stamped out the epidemic”!!

Now let us look for a moment at the relation existing between the number of vaccinations and the number who died of small-pox :—

TABLE XXIV.

Year.	Persons Vaccinated.	Died of Small-pox.	Years.	Persons Vaccinated.	Died of Small-pox.
1864	191810	854	1871	179889	665
1865	169142	461	1872	282484	3248
1866	137124	194	1873	138873	504
1867	125741	21	1874	139587	569
1868	131426	23	1875	137340	535
1869	125672	20	1876	114487	21
1870	140220	32	1877	...	61

Sir Dominic Corrigan was probably stating the truth when in 1871 he told the Committee of the House of Commons on the Vaccination Acts, that “the people of Ireland are most

* NOTE.—The epidemic broke out in the autumn of 1871, and left in the summer of 1873.

favourably disposed to vaccination," for we find in the foregoing Table, that in that year, 1871, the number of births in Ireland was 151,665, while in the same year, 180,000 were vaccinated. More astounding still in the year 1872—149,292 were born, and 282,484 were vaccinated.

Thus we have here a further confirmation of what I have repeatedly observed, recorded, and published, that the same result as that which followed inoculation in the last century, is now occurring as the consequence of vaccination, viz., the more vaccinations, the more small-pox. A careful inspection of the foregoing Table should convince the most sceptical of that fact.

The Local Government Board for Ireland, in their Report to the Lord Lieutenant, dated March 31, 1874, thus remarks on the considerable increase of vaccinations :—

"The exceptionally large number of vaccinations, the result of alarm in 1872 (282,484), consisted to a very considerable amount, of vaccinations and re-vaccinations of adults. Such vaccinations in 1872 exceeded those of the same class in 1871 by 98,986 cases, and exceeded those of 1873 by 120,268. *The increase between the two former, and decrease between the two latter years COINCIDING WITH THE RISE AND SUBSIDENCE OF THE SMALL-POX.*"

So much for Ireland. I will conclude this chapter by referring briefly to the City of Dublin, and here we have the usual phenomenon presented to us—that small-pox was "stamped out" by vaccination—a proof of which was, it was boasted, evident by the fact that in the year 1867 there were only two deaths from small-pox. In 1868, one death only. In 1869, one death. In 1870, not a single death from small-pox was registered. "STAMPED OUT." The cry was uttered not only by Sir Dominic Corrigan, but by Dr. Lyon Playfair, by

Dr. Brewer, by Mr. W. E. Forster: by, indeed, many members of that Committee, to all of whom I said when the "fact" was thrown in my face, "Wait till the epidemic visits Ireland, and then you will see that the small-pox will pay no respect to the vaccinated." Before that year expired 207 died of small-pox in Dublin alone. In the following year (1872) no less than ONE THOUSAND THREE HUNDRED AND FIFTY DIED. Two thousand five hundred cases were admitted into the hospital alone.

Below is the mortality as registered from 1864 to 1877:—

TABLE XXV. *Dublin*

Year.	Died of Small-pox.	Year.	Died of Small-pox.
1864	42	1871	207
1865	71	1872	1350
1866	25	1873	16
1867	2	1874	2
1868	1	1875	2
1869	1	1876	9
1870	0	1877	38
		1878	570
		1879	525

added from errata p. 1

Under the Compulsory Act of 1863, leading to increased vaccination, we have in the

First Septenniad—1864-70 ... 142 deaths

Second Septenniad—1871-77 ... 1,624 „

These are the latest returns. Dublin is now blessed by a second epidemic since 1871, when small-pox was said to be "extinct."

I cannot conclude my observations on Ireland, without adding a quotation from the Report of Dr. Seaton on the late epidemic of small-pox in the United Kingdom, contained in the

Report of the Medical Officer of the Privy Council to the Local Government Board, 1874. Dr. Seaton says:—

“In the year 1872 the disease was diffused more or less over
 “the whole of Ireland, with the exception of the province of
 “Connaught. The chief mortality was in the cities of Dublin
 “*30 p. mill.* and Cork. The deaths in Dublin in 1872 were 1,350, and
 “throughout the whole of the epidemic, 1,557, or the rate of
 “five thousand per million of the population.

“The deaths in Cork were 1,873, or at the rate of nine
 “thousand, six hundred per million living, which is a higher rate
 “than that of any large town in England.”

It is lamentable that with all the foregoing facts before them, Members of Parliament should favour by their assent the enactment of a still more stringent law for enforcing vaccination on the people of Ireland. Still more is it to be deplored that Her Majesty's Government, by lending an ear to the interested promoters of such Acts, should favour the extension of a despotism which will, sooner or later, endanger the peace of the Nation, the credit of the Profession, and jeopardise, it may be, the lives of Public Vaccinators, and Inspectors of Vaccination.

The foregoing afford ample evidence from authorities which cannot be called in question—first, that small-pox has increased in fatality as vaccination has been extended; secondly, that the prediction that vaccination would stamp out small-pox is not fulfilled; and thirdly, that the periodic visitations of small-pox, like other epidemics, follow a natural law over which neither vaccination nor legislation has any control.

These conclusions will be further strengthened in the remaining portions of this Essay by reference to many of the European States; notably Sweden, Denmark, ~~and~~ Germany, all and other “well-vaccinated countries,”

PART V.—SWEDEN.

The laws by which vaccination is enforced in Sweden are thus recorded :—

“ I.—Every child must be vaccinated before it is two years old.

“ II.—A certain period after vaccination is fixed for ascertaining the results of the operation. Presentation for inspection is likewise obligatory.

“ III.—Anyone found guilty of contravening the provisions of the law is punished with fines of from one and a half to five crowns. (During an actual epidemic, of not less than five crowns), and in default of payment, with imprisonment.

“ IV.—Every vaccinated person is bound, under a penalty of five crowns to allow matter to be taken from him should it be required by the vaccinator.

“ V.—No one can be admitted into a public school, or other educational institution, without a certificate of having been vaccinated, or of having had the natural small-pox; or that having been vaccinated five years previously, at the longest no results were obtained.

“ VI.—Indigent children are vaccinated at the expense of the Commune.

“VII.—The Communal Authorities are entrusted with carrying out the law, but may, in case of urgency, call in the aid of the Crown officials.

“When small-pox is epidemic, vaccination ought to take place in the first month of life.

“Re-vaccination is generally recommended at the age of 15, and is prescribed for recruits for the army and navy.”

Such is the law in Sweden.

I now desire to call attention to those foreign countries referred to by Mr. Simon, and other witnesses, in which vaccination has been more or less compulsory for the past sixty years. Mr. Simon's “Papers on Vaccination,” presented to Parliament in 1857, were reproduced and presented again to the Committee of 1871.

Why Mr. Simon contented himself with laying before the Committee of 1871 information twenty years' old, appears remarkable, with all the facilities at his command in his Department, for obtaining the more recent facts so much needed by the Committee.

The countries especially referred to were Sweden, Denmark, and Prussia, as the most and best vaccinated countries—countries in which small-pox was “stamped out” by vaccination. To those countries I therefore particularly direct attention, as illustrating the fact that, with the most extensive vaccination, the mortality from small-pox, as in England, has so greatly increased that, in some instances, it has exceeded that of the last century.

Among the Papers alluded to, we find the annexed Table (No. XXVI), showing the number of deaths from small-pox since the introduction of vaccination. In his commentary on the statistics he stated that vaccination had reduced the death rate to 158 per million during the forty years of vaccination.

Had the witness carried on his figures beyond the dates he quoted, he would have found a considerable increase.

My readers will find, further on, the list of mortality carried down to 1875.

TABLE XXVI.

SWEDEN.

DEATHS from Small-pox in Sweden, 1821 to 1855.

Years.	Deaths.	Years.	Deaths.
1821	37	1839	1934
1822	11	1840	650
1823	39	1841	237*
1824	618	1842	58*
1825	1243	1843	9*
1826	625	1844	6*
1827	600	1845	6*
1828	257	1846	2*
1829	53	1847	13*
1830	104	1848	71*
1831	612	1849	341*
1832	622	1850	1376
1833	1145	1851	2488
1834	1049	1852	1534
1835	445	1853	279
1836	138	1854	204
1837	361	1855	41
1838	1805		

Reference to Table XXXVIII., giving the number of deaths from small-pox in Sweden, from 1774 to 1875, will show that subsequent to the year 1854, the last year in the Table presented by Mr. Simon, that the mortality in that year had decreased to 41. (That and the following year being non-epidemic years.) In the year 1857, however, an epidemic

* Mr. Simon's selected years, "proving" the successful results of compulsory vaccination.

began, which prevailed until the middle of the year 1860. In that epidemic, in a period of three years' prevalence, there died of small-pox in Sweden no fewer than four thousand persons.

Further, the same Table shows that in the five years ending 1869, there died of small-pox, 6,817, showing a YEARLY AVERAGE OF 1,363. Coming down to more recent years, the epidemic of 1873-4-5, we find in three years only, there died of small-pox more than seven thousand persons, giving a death-rate of *one thousand six hundred and fifty-eight per million—all vaccinated*, no doubt, under a compulsory law.

In Table XXVII., I have given in decades of years, from 1771 to 1870, the number of deaths from small-pox, ditto from all causes, with the death-rate per million living in each decade. Also for the five years ending 1875.

I have also added, separately, the three years included in the fatal epidemic which followed that, which was so severe in this country.

It will be observed that the estimated average population in each decade is given in one column of the Table.

In the decade, 1771-80, the deaths from small-pox to 1,000 deaths were 91.

In the following decade, 1781-90, it was 77, although the number of deaths from all causes was greater.

A remarkable instance of the fallacy of the statistics put forth in favour of vaccination is seen in the following.

In the decade, 1831-40, the deaths of small-pox to every 1,000 deaths from all causes, was 12.76, when there were 876 deaths from small-pox; while in the decades, 1851-60 and 1861-70, when the mortality from small-pox was nearly the same, deaths to all causes were only 1.9, and 1.5 per 1,000. This arose from the circumstance that the general

mortality was increased by dysentery which carried off 12,730 persons in 1857, and by cholera, which killed 4,706 persons in the year 1866.

I am indebted to Dr. Berg, of Stockholm, to whom Dr. Farr kindly introduced me, for the official figures, excepting the death-rate per million, which has been carefully calculated for me by a London actuary. I have since come into possession of the Census Table, supplied by A. J. Siljeström, which is to be found in Table XXVIII.

The increase of the death-rate from small-pox under compulsory vaccination in that country is startling and unexpected. Thus Mr. Simon's 11 *per million in 1855*, have mounted to 355 per million in the quinquennial period, 1871-5, and during the epidemic of the three years, 1873-4-5, to no less than 1658 *per million*.

These results, are not theoretical speculations of prejudiced advocates, but actual facts on the authority of the Government of Sweden, and cannot be lightly treated. They reveal a condition of things which, whatever may be adduced to the contrary, show the utter failure of vaccination.

TABLE XXVII.

SWEDEN.

Population, Average Annual Mortality from all Causes, and from Small-pox; the proportion of Small-pox Deaths to each Thousand Deaths; and the Death-rate per Million living.

Periods of Ten Years.	Average Population.	Average Annual Deaths.		Small-pox Deaths in each 1,000 Deaths.	Small-pox Deaths per Million living.
		All Causes.	Small-pox.		
1771...80	2043691	58961	5379	91*	2632
1781...90	2152538	59578	4597	77*	2136
1791...1800	2284973	57876	4122	71*	1804
1801...10	2400095	65967	2025	30*	841
1811...20	2483222	63903	397	6*	160
1821...30	2757999	65037	358	5*	130
1831...40	2926262	68655	876	12.76	299
1841...50	3323451	68061	212	3*	63
1851...60	3660934	*79005	862	1.9	235
1861...70	4094671	†82232	807	1.5	212
Five Years.					
1871...5	4295440	78114	1526	19.5	355
3 Years Epidemic.			Total in 3 years.		
1873	4297072	73525	1122)		
1874	4341359	87760	4063		
1875	4383291	88439	7204	28.8	1658
Single Years.			2019)		

* In 1857 an epidemic of Dysentery carried off 12,730 persons.

† In the year 1866, Cholera carried off 4,706 persons.

TABLE XXVIII.

POPULATION OF SWEDEN, as supplied by P. A. Siljeström.
Signed by him at Stockholm, November 20th, 1880.

Year.	Population.
1774	1997809
1780	2118281
1790	2158232
1800	2347303
1810	2377850
1820	2584690
1830	2888082
1840	3138887
1850	3482544
1860	3859728
1870	4168525
1880	4531863

Sweden, that "well vaccinated country"—"the best vaccinated country in Europe"—"the most vaccinated country in the world"—(all these terms have been used again and again)—Sweden furnishes the most abundant evidence that—

I.—Inoculation made compulsory in the year 1754* increased the mortality from small-pox.

II.—That there was a general subsidence of small-pox during the latter part of the last century.

III.—That in the gradual abandonment of the practice of variolous inoculation, and the spontaneous subsidence in the early years of the present century is found the cause of the decline of the disease wholly independent of vaccination.

IV.—That when vaccination was extended and enforced by Royal decree, in the year 1816, there *followed a gradual revival* of small-pox mortality.

*1754 was the year when the College of Physicians in London commended strongly, the practice.

V.—That the mortality in the late epidemic far exceeded many of those which preceded the general adoption of vaccination.

VI.—That Sweden affords a fair example of the utter inefficiency of vaccination to fulfil its professed power to “stamp out” the disease, seeing that for sixty years vaccination has been compulsory, and re-vaccination extensively practised in that country.

The following extracts are made from the “Blue Book” Report of the Committee of the House of Commons, 1871, to show the generally prevailing belief among not only the well-paid officials of the Vaccination Department, but also of those medical men whose opinions, borrowed from officials, and not founded on reason or fact, were sought by a Committee, of the most part prejudiced Members, the Chairman of which (Mr. W. E. Forster), having stated in the House of Commons, when he applied for the Committee of Inquiry, ^{he} did so not because he had any doubt of the benefits of vaccination, but because the inquiry would confirm the generally accepted belief in its value.

The following Table, No. XXIX., gives the death-rate of small-pox to one million living in each year, from 1771 to 1855, and exhibits the fluctuations in the number of deaths. The remarkable decline of small-pox is apparent in Sweden as in England in the latter part of the last century, and the beginning of the present. This decline of the disease being coincidental with the introduction of vaccination, unfortunately led to the fatal error that the change was due to vaccination, although vaccination had not then been practised in Sweden.

TABLE XXIX.

Small-pox Death-rate for the Kingdom of Sweden. Calculated by Mr. Haile, from facts officially communicated, showing Small-pox Deaths per Million living in each year.

Year.	Year.	Year.	Vaccination ordered, 1816.	Year.	Year.	Year.
1771	1791	1810	347	1828	90	1847
1772	1792	1811	291	1829	19	1848
1773*	1793	1812	167	1830	36	1849
1774	1794	1813	225	1831	211	1850
1775	1795	1814	126	1832	213	1851
1776	1796	1815	191	1833	387	1852
1777	1797	1816	277	1834	352	1853
1778	1798	1817	96	1835	147	1854
1779	1799	1818	120	1836	45	1855
1780	1800	1819	63	1837	117	<i>Continued</i>
1781	1801	1820	55	1838	583	<i>a. h. 83</i>
1782	1802	1821	14	1839	621	
1783	1803	1822	4	1840	207	
1784	1804	1823	15	1841	75	
1785	1805	1824	226	1842	18	
1786	1806	1825	449	1843	3	
1787	1807	1826	223	1844	2	
1788	1808	1827	212	1845	2	
1789	1809			1846	$\frac{0.8}{3}$	
1790	1810					

* Prior to 1774, Measles were included in the Deaths.

† A line is drawn here, as up to 1809, Finland was included in Sweden. Since 1809 the statistics include Sweden only.

The above Table will be found at page 416, Appendix to

Report of Select Committee on the Vaccination Act, 1871, handed in by Mr. Simon.

Table XXX. shows that prior to vaccination, there was a gradual subsidence of small-pox mortality down to the year 1820, and that a revival of small-pox mortality has taken place, notwithstanding the strenuous efforts made since that date to check it by vaccination and re-vaccination, so that the mortality in the recent epidemic was the heaviest in the present century, the epidemic carrying off no less than seven thousand two hundred persons in a little more than two years, being 1658 per million living.

T A B L E X X X.

SWEDEN.

TABLE showing the Decline of Small-pox Mortality from 1770 to 1820, and its gradual advance to the year 1875.

Decades.				Annual Average Small-pox Deaths.
1771...80	...	...	...	5379
1781...90	...	...	...	4597
1791...1800	...	...	...	4122
1801...10	...	...	...	2025
1811...20	...	...	...	397
1821...30	...	...	...	358
1831...40	...	...	...	876
1841...50	...	...	...	212
1851...60	...	...	...	862
1861...70	...	...	...	867
Single Years.				
1871	...	...	...	329
1872	...	...	...	346
1873	...	...	...	1122
1874	...	...	...	4063
1875	...	...	...	2019

T A B L E X X X I.
S W E D E N A N D S T O C K H O L M .

Showing number of Deaths from all Causes, and from Small-pox,
in the years 1873-74-75.

Kindly furnished by Dr. Berg, of Stockholm.

(The whole Country).

Year.	Population.	Deaths from all Causes.	Deaths from Small-pox.
1873... ..	4297972	73525	1122
1874... ..	4341559	87760	4063
1875... ..	4383291	88439	2019

S T O C K H O L M O N L Y .

1873... ..	147249	5228	191
1874... ..	150446	6163	1191
1875... ..	152582	5238	20

The above Table shows at a glance death's doings among the vaccinated and re-vaccinated people of Sweden !!

DR. GULL, now Sir William Gull, in answer to Question No. 4,787, stated that Sweden, Norway, and Denmark were said to be the best vaccinated countries.

DR. SEATON, Chief Director of the Vaccination Department of the Local Government Board, to the Question No. 5,601, "Which country would you consider most protected?" "replied thus:—"I believe that Sweden, Denmark, and "Norway are very well protected."

Mr. Marson, Surgeon to the London Small-pox Hospital, Highgate, gave the following replies. To Question 4,122, he said :—

“The *Swedes* and Norwegians, who are the best vaccinators, “have seven good marks.”

To Question 4,331—“Did you recommend that similar “arrangements to those now in force in Sweden and Denmark “should be added here?”

“I did. I was very desirous of it, because I knew that the “people there were well vaccinated, almost invariably with “seven good marks, about the size of a fourpenny piece, and “the result is that they have small-pox very light.”

[Yet they got into the London Hospital as small-pox patients.]

That well vaccinated country—Sweden—presents to the world a mortality from small-pox unparalleled in the present century.

It is manifest, then, that the supposed immunity from small-pox in well vaccinated countries is not due to vaccination, as when an epidemic occurs of more than ordinary severity, vaccination and re-vaccination, so extensively carried out in Sweden, are utterly powerless to protect populations.

The fallacy of the conclusion arrived at by the Epidemiological Society referred to by Mr. Simon, is thus clearly demonstrated. Other causes, therefore, must exist quite independent of vaccination for the apparent immunity of Sweden during the years referred to by Mr. Simon.

I need not detain you longer on the country of Sweden. I have adduced abundant evidence of the unreliableness of the statements of the chief officials of the Local Government Board. Not only so, but the lamentable revelation now made of the utter ignorance of the “Heads ” of the profession, manifested in the presence of the Committee of 1871. I have

quoted only a few of the wild sayings of those men who, unfortunately, are looked to as "the lights" of the Government.

I conclude this chapter on Sweden, showing death's doings in the last epidemic which visited that "well vaccinated country," together with voluminous Tables XXXII. and XXXIII. kindly furnished to me by Dr. Berg, of Stockholm, showing the mortality from Zymotic diseases from 1853 to 1875.

TABLE XXXII.—REGISTERED CAUSES OF DEATH IN SWEDEN FROM EPIDEMIC DISEASES, FROM 1853 TO 1875.

	Years.												
	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865
Small-pox—Whole Country	279	204	41	52	560	1289	1470	708	193	148	307		
<i>Cities only</i>	32	34	12	45	411	280	332	109	54	23	106		
Measles—Whole Country	...	...	...	...	...	...	...	...	507	7407	2527		
<i>Cities only</i>	...	...	...	...	...	...	...	...	164	1256	127		
Scarlatina—Whole Country	...	...	...	...	...	...	...	...	1453	1684	1324		
<i>Cities only</i>	...	...	...	...	...	...	...	...	353	203	217		
Diphtheria and Croop—Whole Country	...	...	...	...	...	...	...	...	1145	2524	3938		
<i>Cities only</i>	...	...	...	...	...	...	...	...	294	537	579		
Whooping Cough—Whole Country	...	...	...	...	...	...	...	...	1856	1549	749		
<i>Cities only</i>	...	...	...	...	...	...	...	...	168	163	77		
Typhus and Typhoid—Whole Country	...	...	...	...	...	...	...	...	1431	1346	1243		
<i>Cities only</i>	...	...	...	...	...	...	...	...	316	345	366		
Diarrhoea—Whole Country	...	...	...	...	...	...	...	...	...	...	...
<i>Cities only</i>	...	...	...	...	...	...	...	...	...	...	...
Dysentery—Whole Country	1614	3682	1829	533	12730	2282	2352	634	879	326	394		
<i>Cities only</i>	...	...	...	...	376	109	185	93	109	79	25		
Cholera—Whole Country	8511	1152	2302	335	3771	547	813	...	79	31	39		
<i>Cities only</i>	6602	869	1632	234	2257	455	521	...	68	23	29		
Puerpural Fever—Whole Country	...	...	...	...	...	...	...	...	147	200	222		
<i>Cities only</i>	...	...	...	...	...	...	...	...	78	108	137		

TABLE XXXIII.—REGISTERED CAUSES OF DEATH IN SWEDEN FROM EPIDEMIC DISEASES, FROM 1853 TO 1875 (continued).

SWEDEN.	Years.													
	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875		
Small-pox—Whole Country . . .	741	1336	1217	1061	1429	1474	764	329	346	1122	4063	2019		
<i>Cities only</i> . . .	264	429	265	193	194	270	191	152	154	416	1628	317		
Measles—Whole Country . . .	243	182	165	126	1129	5332	339	89	53	293	650	1505		
<i>Cities only</i> . . .	41	3	4	39	345	821	34	30	5	138	244	335		
Scarlatina—Whole Country . . .	2549	4448	4063	1903	2199	4396	4817	2488	1340	1244	2418	2004		
<i>Cities only</i> . . .	343	746	778	371	395	958	869	338	213	274	294	345		
Diphtheria & Croop—Whole Country . . .	3999	3056	2223	1480	1150	1396	1239	1122	1035	1262	1998	2481		
<i>Cities only</i> . . .	496	447	399	238	257	374	207	282	297	364	404	486		
Whooping Cough—Whole Country . . .	1148	602	468	768	2414	1262	371	147	617	1754	1309	440		
<i>Cities only</i> . . .	174	42	80	164	302	163	49	21	141	421	123	112		
Typhus & Typhoid—Whole Country . . .	1382	1840	2617	2298	4596	4330	3201	1737	1934	2137	2149	2198		
<i>Cities only</i> . . .	372	534	605	495	784	656	783	424	657	643	747	717		
Diarrhœa—Whole Country . . .	...	...	...	...	...	...	...	...	...	1553	1572	1807	1972	
<i>Cities only</i> . . .	...	...	...	...	...	...	...	...	...	1387	1394	1552	1734	
Dysentery—Whole Country . . .	423	596	81	46	251	38	133	63	102	45	99	140		
<i>Cities only</i> . . .	44	26	11	10	24	10	16	6	19	14	9	18		
Cholera—Whole Country . . .	29	118	4706	60	198	18	44	67	58	348	56	56		
<i>Cities only</i> . . .	16	34	2454	40	64	6	18	32	28	92	31	25		
Puerperal Fever—Whole Country . . .	291	299	197	244	202	286	380	284	250	325	648	457		
<i>Cities only</i> . . .	181	169	118	117	123	164	149	130	101	136	183	146		

Let me now refer to STOCKHOLM, the Capital of Sweden.

Mr. Simon, in his Report to the Local Government Board, 1875, thus writes at page 61 :—

“ In December, 1873, there set in at Stockholm an epidemic, “ the deaths from small-pox amounted to 618 from December “ in that year, to April, 1874, at which time the epidemic was “ described as *still raging*. The population of Stockholm is

“ but 143,735,* so that evidently its small-pox death-rate will * This is incorrect (see Table XXXI. in this Essay). In 1854 it was 150,446.

“ for this year, be considerably in excess of that of London, “ or even of that of Liverpool in 1871.”

I am indebted to Dr. Berg, Head of the Statistical Department of Stockholm, for the following official record of the deaths from small-pox in Stockholm in the late epidemic (together with four other Zymotic diseases).

STOCKHOLM.

1873.				
From	Scarlatina	...	...	126
„	Hooping Cough...	...	...	110
„	Typhus and Typhoid	...	...	264
„	Diarrhœa	...	...	722
„	<i>Small-pox</i>	...	...	191
1874.				
From	Scarlatina	...	...	58
„	Hooping Cough...	...	...	22
„	Typhus and Typhoid	...	...	363
„	Diarrhœa	...	...	659
„	<i>Small-pox</i>	...	...	1191
1875.				
From	Scarlatina	...	...	70
„	Typhus and Typhoid	...	...	382
„	Diarrhœa	...	...	787
„	<i>Small-pox</i>	...	...	317*

*See Tables XAXII., XXXIII., and XXXIV. for complete Statistics.

Making a total of 1,699. The population of Stockholm in the year 1874 was 150,000, which shows a death-rate of nearly *eight thousand per million living*, whilst the death-rate in London in 1871 was 2,430 per million. Hence we have in the Capital of Sweden, "the best and most vaccinated country in Europe," a mortality nearly four times heavier than in London—a mortality as will be seen on reference to Tables herein, *was greater than in any year of the present century.*

All that has been said in regard to the country of Sweden applies with greater force to its Capital, Stockholm.

The death-rate in cities is everywhere heavier than in country populations, but the enormous mortality in Stockholm, the capital of that "*well vaccinated country,*" must have astounded the Simons and the Seatons, who at all times, and in all places constantly directed attention to Sweden, Denmark and Prussia, as being well-vaccinated countries, and where small-pox had been well nigh "stamped out."

The fatality of the epidemic to which attention is here directed, has falsified all their theories, and proved to demonstration that well vaccinated countries enjoy no greater immunity than England.

The Tables which are presented to the reader have been faithfully brought together from information directly furnished to me by Dr. Berg, the head of the Statistical Central Bureau, of Stockholm.

40/11,000

13 sq. mile -

144,000 in 1872
11,000 per sq. mile

3/11,000

2/137.5

18 per 1000

74
18 per 1000

STOCKHOLM CONTINUED.

TABLE XXXIV.

Dof.

1859 - 65 - 72

STOCKHOLM

101,500 133,500 144,000

Deaths from Small-pox in Stockholm in each year, from 1774 to 1875.

Year.	Year.	Vaccination Decreed.	Year.	Year.
1774... 184	1795...447		1836... 9	1857...319
1775... 210	1796... 92	1816... 8	1837... 9	1858... 52
1776... 31	1797... 13	1817... 3	1838...101	1859... 51
1777... 44	1798... 12	1818... 5	1839... 29	1860... 26
1778... 639	1799...118	1819... ..	1840... 33	1861... 12
1779... 178	1800...703	1820... 1	1841... 17	1862... 1
1780... 14	1801... 81	1821... ..	1842... ..	1863... 9
1781... 23	1802... 16	1822... 3	1843... ..	1864... 88
1782... 12	1803... 6	1823... ..	1844... ..	1865...273
1783... 714	1804... 7	1824... 39	1845... ..	1866...157
1784... 411	1805... 44	1825... 51	1846... ..	1867... 16
1785... 20	1806... 9	1826... 7	1847... 1	1868... 6
1786... 51	1807... 6	1827... 4	1848... 37	1869... 27
1787... 414	1808... 13	1828... 3	1849...179	1870... 96
1788... 117	1809... 7	1829... 3	1850... 45	1871...113
1789... 46	1810... 8	1830... 1	1851... 14	1872... 43
1790... 115	1811... 10	1831... 20	1852... 20	1873...191
1791... 259	1812... 7	1832... 59	1853... 16	1874...1191
1792... 180	1813... 1	1833... 31	1854... 18	1875...317
1793... 22	1814... 2	1834... 32	1855... ..	
1794... 44	1815... 4	1835... 16	1856... 41	

Table XXXIV. exhibits the fluctuations in mortality from 1774 to 1875. Here is presented a whole century of reliable statistics for which Sweden has been long famous, while in England we have no reliable statistics dating farther back than 1838. This is a misfortune, inasmuch as those who contend that the mortality from small-pox in former times was so

dreadful in contrast with that of the present century, make statements which can only be regarded as conjectural.

So far back as 1776 and 1777 the mortality was insignificant.

Again, in the three years, 1780-1-2, there died only 49 persons in the City. With the exception of an epidemic, about every fourth year as in London, the mortality was very moderate. The gradual decline in the mortality before the people were vaccinated is as marked in Stockholm City as in London, concurrent with the general decline of all forms of severe febrile and eruptive diseases, as civilization advanced, when cleanly habits and better habitations took the place of the filthy condition of past centuries.

I have constructed Table XXXV, with the object of distinguishing the difference in mortality between epidemic and non-epidemic years. The regular manner in which the exanthematous diseases become epidemic, their settling down into quiescence, almost abandoning a locality for a time, is observable in all countries. The explanation is not easy. These remittent visitations appear to be governed by an unknown cause over which we have no control.

It is passing strange that the advocates of vaccination invariably take credit to themselves for their activity on the subsidence of small-pox, and childishly cry out, "See what we have done." Yet these men are the "Scientific Authorities" to whom, alas! Parliament and the people listen. What has vaccination done for Stockholm?

TABLE XXXV.

Table showing the comparative mortality from Small-pox in each epidemic in Stockholm from 1774 to 1875, with the mortality in the intervening non-epidemic years.

Years Epidemic.	Small-pox Deaths.	Years Non-epidemic.	Small-pox Deaths in Non-epidemic Years.
1774...5	394	1776	75
1778...9	817	1780...1-2	49
1783...4	1125	1775...6	71
1787...8	531	1789	46
1790...1-2	554	1793...4	66
1795...6	539	1797...8	25
1799...1800	821	1801...2	97
1805...	44	1806...23	86
1824...5	90	1826...31	38
1832...4	122	1835...6-7	34
1838...41	180	1842...47	1
1848...50	261	1851...55	68
1856...9	463	1860...63	48
1864...6	518	1867...8-9	49
1870...71	209		
1872...3-4	1464	1875	20

Vaccination was ordered in the year 1810.

The heaviest mortality in the whole century was that of 1872-3-and-4, after 60 years of vaccination.

Table XXXVI. is the most remarkable, showing how the small-pox dropped in the first year of the present century, *before vaccination*; how the mortality from nearly two thousand in the decade ending in the year 1800, fell to two hundred in the following ten years; also how it fell to an average of *four* deaths in a year in the decade ending 1820. "See what vaccination has done," said Mr. Simon, pointing to those years.

Steadily, however, did small-pox advance under universal vaccination, each decennium presenting figures which ought to have convinced the authorities that this meddling vaccinating practice increased the severity of the disease with which they were doing battle. Small-pox laughs in derision at this quackery. Look at the records, each ten years' product—heavier than the preceding—41, 115, 339, 279, 557, 685, 1810; while at length when everybody had been vaccinated and re-vaccinated in half a decade, the five years, 1871-2-3-4-5, the mortality went up to no less than fifteen hundred and fifty eight, the largest mortality for a century.

TABLE XXXVI.

STOCKHOLM.

Table showing the number of deaths from Small-pox in the City of Stockholm, in decades of years from 1781 to 1870, and five years, 1871 to 1875.

Decades of Years.	Small-pox Deaths.	Decades of Years.	Small-pox Deaths.
1781...90	1923	1831...40	339
1791...1800	1890	1841...50	279
1801...10	197	1851...60	557
1811...20	41	1861...70	685
1821...30	115		
Five Years.		Ten Years.	
1871...75	1538	1866...75	1810

Table XXXVII I have constructed to show the mortality of the European epidemic when it prevailed in Stockholm in the years 1873-4. Here we have, 1st, the number of deaths from small-pox, the deaths per thousand deaths from all causes, and the death-rate per million living. And it will be remembered that in that vaccinated population, the death-rate reached 7,916 per million, while severe as it was in London, the death-rate was 2,430 per million living.

TABLE XXXVII.

CITY OF STOCKHOLM.

Table showing the population of the City in the years 1873 and 1874; the number of deaths from Small-pox with the proportion of deaths from Small-pox to all causes; also the Small-pox death-rate per million living.

Years	Population.	Deaths. All Causes.	Deaths from Small-pox.	Deaths per 1,000 Deaths.	Per Million living.
1873	147249	5228	191	36.5	1297
1874	150446	6163	1191	193.	7916

The epidemic lasted two years, and destroyed 1,382 in a population of 150,000.

How long in the face of the foregoing facts will this meddling and muddling be permitted by thinking peoples? When will the nations put away this crime from before their eyes? How long shall this GOLDEN HEIFER be kept before nations by its devotees?

Table XXXVII has been furnished by Rektor Siljeström and by Dr. Berg, and presents the records from official statistics of more than a century for the whole country.

Nothing can be clearer than the fact that the decline of mortality from small-pox towards the close of the last century was wholly independent of vaccination. Stockholm City is included in the Table.

For the death-rate per million living, the reader is referred to Table XXVII. p. 62.

A diagram has been kindly furnished by Rektor P. A. Siljeström, and published by the Society for the Abolition of Compulsory Vaccination, which completely confirms the law of vicarious mortality which I brought before the notice of the Committee of the House of Commons in 1871. The rise and fall of small-pox mortality, as well as the interchange I have endeavoured to elucidate in the chapter on "Vicarious Mortality," in this Essay, is seen at a glance in that diagram and the notes accompanying it.

It is there manifest, that when small-pox mortality declines, the general mortality increases, as stated in my evidence in 1871, and embodied in this Essay.

Reference to the Chapter on Vicarious Mortality in this Essay will completely demonstrate the law of interchange between Zymotic diseases.

TABLE XXXVIII.
Small-pox deaths in Stockholm City, and in Sweden, in the
years 1744 to 1875.

Year.	STOCKHOLM. Small-pox Deaths.	SWEDEN. Small-pox Deaths.	Deaths. All Causes.	Population
1774	184	...	...	...
1775	210	1275	49949	2020847
1776	31	1503	45692	
1777	44	1943	51096	
1778	639	16607	55028	
1779	178	5102	59325	
1780	14	3374	45731	2118281
1781	23	1485	54313	
1782	12	2482	58247	
1783	714	3915	60213	
1784	411	12453	63792	
1785	20	5077	60770	2149773
1786	51	671 ³⁰⁰	55951	
1787	414	1771 ⁸²⁰	51998	
1788	117	5462 ²⁵⁰⁰	57320	
1789	46	6764 ³¹⁴⁰	69583	
1790	115	5893 ²⁷⁴⁰	63598	2158232
1791	259	3101 ¹⁴⁴⁰	55946	
1792	180	1939 ⁹⁰⁰	52958	
1793	22	2103 ⁶⁹⁰	54376	25.240
1794	44	3964 ¹⁷⁴⁰	53377	
1795	447	6740 ²⁹⁵⁰	63619	2281137
1796	92	4503 ¹⁹⁹⁰	56474	
1797	13	1733 ⁷⁵³	55036	
1798	12	1357 ⁵⁹⁰	53862	25.800
1799	818	3756 ¹⁸⁷⁰	59192	
1800	703	12032 ⁵⁷⁰⁰	73928	2347303
1801	81	6057 ²⁵⁷⁰	61317	2356027
1802	16	1533 ⁶³⁰	56035	
1803	6	1464 ⁶⁷⁵	56577	
1804	7	1460 ⁶⁸⁴	59584	
1805	44	1090 ⁴⁴⁸	56663	2427408
1806	9	1482 ⁶⁸⁰	65728	
1807	6	2129 ⁸³²	62318	
1808	13	1814 ⁷⁴⁰	82311	
1809	7	2404 ⁹⁸⁰	93532	

In 1754 inoculation was made compulsory in Sweden at the instigation of Dr. Schultz.

Year.	STOCKHOLM. Small-pox Deaths.	SWEDEN. Small-pox Deaths.	Deaths. All Causes.	Population	
1810	8	824	75607	2377851	
1811	10	698	69246	2936581	
1812	7	404	73095	} 27.05	
1813	1	547	66266		
1814	2	308	60959		
1815	4	472	<u>57829</u>		
1816	8	690	<u>56225</u>		
1817	3	242	60863		
1818	5	305	61745		
1819	...	161	69881		
1820	1	143	<u>62930</u>		2584690
1821	...	37	66416		2510870
1822	3	11	59390		
1823	...	39	56067		
1824	39	618	56256		
1825	51	1243	<u>56465</u>	2771252	
1826	7	625	63027		
1827	4	600	64920		
1828	3	257	75860		
1829	3	53	82719		
1830	1	104	69251	2888082	
1831	20	612	75274	2901039	
1837	59	622	68078		
1833	31	1145	63947		
1834	32	1049	76294		
1835	16	445	<u>55738</u>	3025439	
1836	9	138	60763		
1837	9	361	75611		
1838	101	1805	74309		
1839	29	1934	72988		
1840	33	650	<u>63555</u>	3138887	
1841	17	237	61279	3173160	
1842	...	58	67177		
1843	...	9	69115		
1844	...	6	66009		
1845	...	6	<u>62974</u>	3316536	
1846	...	2	72683		
1847	1	13	79405		
1848	37	71	66513		

Year.	STOCKHOLM. Small-pox Deaths.	SWEDEN Smll.-px. Deaths.	Smll.-px. in Towns.	Deaths. All Causes.	Population
1849	179	341		67842	<i>Per Million</i>
1850	45	1376		68514	
1851	14	2488		72506	
1852	20	1534		80090	
1853	16	279	32	84047	
1854	18	204	34	70846	
1855	...	41	12	77734	
1856	41	52	45	79618	
1857	319	560	411	101491*	
1858	52	1289	280	80498	
1859	51	1470	332	75720	
1860	26	708	109	67502	
1861	12	193	54	71829	
1862	1	148	23	84350	
1863	9	307	106	77227	
1864	88	741	264	81937	
1865	273	1336	429	79216	
1866	157	1217	265	82666†	
1867	16	1061	193	82072	
1868	6	1729	194	87807	
1869	27	1474	270	92775	
1870	96	764	191	82449	
1871	113	329	152	72046	
1872	43	346	154	68802	

Years.	Stock-holm.	Sweden.	Towns.	All Causes. Sweden.	All Causes. Stock-holm.	Stockholm	Sweden.
1873	191	1122	416	75525	5228	147249	4297972
1874	1191	4063	1628	87760	6163	150446	4341359
1875	20	2019	317	88439	5238	152582	4531863
1876							

* In the year 1857 an Epidemic of Dysentery carried off 12,730 persons; hence the increased mortality.

† In 1866, Cholera carried off 4,706 persons.

1874
75
76
77
80
1878.
From Siljeström

Per Million
11
14
152
345
388
183
49
37
76
182
325
292
252
415
354
183
78
80
for years 1855 to 1877
figures after with above 4
15
261
936
448
44

NORWAY.

I append the following note on Norway—that country having been alluded to by certain witnesses before the Committee of 1871.

I regret that there are no reliable statistics of mortality and its causes to be obtained from that country.

The following extracted from Simon's Papers on Vaccination is important, disclosing as it does the fact that there are medical men in that country who have the courage to state the truth regarding vaccination.

In the Appendix to Evidence before the Select Committee of the House of Commons on Vaccination, 1871, we have presented to us by Mr. Simon, in a series of Papers professing to be the results of inquiries sent to foreign governments, the following reply from a Committee in Norway (abbreviated):—

1.—“The Committee feel it their duty to remark that during “periods of intercurrent epidemics of small-pox, some few fatal “cases have occurred among persons who have been vaccinated. Our experience dates from 1811, when vaccination “was made obligatory in this country by law.”

2.—“With respect to scrofula and phthisis, there are “certainly some medical men of opinion that these diseases “have of late become more prevalent, but as regards this being “attributable to vaccination, we have no experience to warrant “an opinion.”

3.—“The Committee do not venture to assert, with positive “facts in view, that other diseases are transmitted by vaccination, “but they cannot avoid remarking that there are in Norway

"*enlightened medical men* who conceive that they have proofs
"of such transmission having taken place."

4.— . . . "The experience of the Committee, as well
"as that of several other medical men, has also shown on
"many occasions that infants after vaccination do, not unfre-
"quently, become sickly in various ways. The Committee have
"not hesitated to recommend deferring it until school-time
begins."

DENMARK.

I now submit to the reader the state of DENMARK, the second well-vaccinated country, from which, it was said, small-pox had been so far banished by vaccination, that for some years not a single death from that disease occurred in Copenhagen.

In 1801 a Royal Commission on Vaccination was appointed.

In 1802 a Vaccination establishment was erected at Copenhagen.

In 1803 the Commission on Vaccination recognizes the protective powers of vaccination.

In 1810 a Decree ordering vaccination was promulgated.

In 1825 the Vaccination Commission was abolished, and vaccination placed under the control of the Board of Health.

In 1834 re-vaccination becomes general.

In 1836 re-vaccination ordered for the army.

In 1844 re-vaccination ordered for the navy.

No child can be admitted into a school, or present itself for confirmation, unless a certificate of vaccination be produced.

The Table handed in by Mr. Simon, illustrating this asser-

tion, will be found at page 410 of the Report of Committee on Vaccination Acts, 1871. That Table, although presented to the Committee of the House of Commons in 1871, ends with the year 1850.

I have received from the Registrar at Copenhagen the later statistics of that City down to the year 1875. It appears that in the recent epidemic a greater number died than in any year since 1801.

TABLE XXXIX.

Showing the deaths from Small-pox and from all Causes in
Copenhagen, in the years 1850 to 1875.

Years.	as the Dof Small- pox.	Deaths from all causes, (except still- born.)	Number of Inhabitants.
1850	...	3323	129695 According to the Census
1851	2	3489	... ..
1852	...	3918	... ..
1853	...	8286*	... ..
1854	...	3102	... ..
1855	...	3574	143591 According to the Census
1856	2	3659	... ..
1857	...	4176	... ..
1858	1	4136	... ..
1859	70	3867	... ..
1860	85	3890	155143 According to the Census
1861	2	3812	... ..
1862	...	3912	... ..
1863	5	3834	... ..
1864	66	5338	... ..
1865	50	4529	... ..
1866	28	4072	... ..
1867	8	3878	... ..
1868	3	3951	... ..
1869	2	3747	... ..
1870	4	4002	181291 According to the Census
1871	23	4685	... ..
1872	219	4477	191
1873	22	4902	... ..
1874	64	5204	... ..
1875	190	5869	205000 Calculated, 1 January

The fluctuations in the mortality from small-pox is as remarkable as in that of other diseases. That vaccination was not the cause of the absence of an epidemic of small-pox is

* Cholera Year.

1,000

evident from the recurrence of that disease in a more severe form in that well-vaccinated country.

In Copenhagen vaccination was made compulsory in 1810, forty-three years before the English Parliament passed a similar law—yet the small-pox death-rate, in the year 1872, was no less than 1,200 per million living.

The severity and general prevalence of the disease in the City of Copenhagen may be inferred from the number that succumbed.

If only 20 per cent. of the attacked died, then at least two thousand persons must have been attacked in a population of two hundred thousand.

In the papers handed in by Mr. Simon as evidence to the Committee of 1871,* it was stated that since the introduction of vaccination into Denmark, so mild was the disease in those who were vaccinated, that only *one to five per cent. died* of those who were attacked during the various epidemics.

If such *was* a fact!! and vaccination was the cause of this wonderful immunity, how comes it that in the late epidemic so many as four hundred deaths occurred? Then eight thousand of the population must have been stricken down!!

It is, I submit, high time that these *speculating special theorists* were banished. Governments should no longer give ear to them. The effect is lamentable in the production of Acts of Parliament which tyrannically enforce medical dogmas on an unwilling people.

X L .

TABLE XXXIX.

Showing the number of deaths from Small-pox in Copenhagen, in decades to 1870, with the yearly averages. Also in the five years, 1871-5.

* See Report of Committee, page 409.

COPENHAGEN.

In the Ten Years.	Deaths from Small-px.	Yearly Average.
1801...10	639	64
1811...20	...	...
1821...30	119	12
1831...40	568	56
1841...50	245	24
1851...60	160	16
1861...70	168	16
<hr/>		
Five Years.		
1871—5	518	103

Vaccination was made compulsory in the year 1810. The recent mortality is double that of the previous sixty years.

The foregoing Table is compiled from the official statistics of Copenhagen, which shows the fluctuation in the mortality, and the enormous increase in the last few years in that City, in which vaccination had been compulsory sixty years, and where re-vaccination since the year 1834 had been generally adopted. The reader will perceive that the number of deaths from small-pox in the *five years*, 1871-5, was nearly equal to the deaths in the *thirty years* from 1841 to 1870, the yearly average having increased from 16 to 103.

I think I have presented ample proof that the opinion which I expressed in my evidence before the Select Committee of the House of Commons, viz. :—

That, in those countries which had been alluded to as being secured from small-pox by the protection afforded by vaccination, when the epidemic then prevailing in England reached those countries, a very different result would be found.

The facts which I have collected from authorities cannot be set aside, nor can they be even disputed.

They scatter to the winds the theories and opinions! of a handful of officials and their friends, who formed themselves into a Society called the Epidemiological. They began their career with one of the grossest blunders ever made by a faculty known for its changes of opinion, and palmed it on the Government without fair inquiry

I have demonstrated in the foregoing and following pages the entire fallacy of the foundation on which, unfortunately, legislation on this great and important subject was based, and I urge that is the duty of Parliament to repeal those Compulsory Acts which are now irritating the people of this country.

That "well-vaccinated" City of Copenhagen in the year 1872 lost 219 by small-pox, and during the epidemic, 495, showing a death-rate in the year 1872 of 1,190 per million living, and in 1875 a death-rate of 927 per million living, shown thus:—

Year.	Population.	Deaths from Small-pox.	Deaths per million persons living.
1872	184000	219	1190
1875	205000	190	927

Alas! poor Denmark. Taught by England's quackery, they trusted in what has turned out to be a broken reed.

PRUSSIA.

Prussia is another of those countries which have been constantly referred to as affording proof that vaccination has been most effectual in not only mitigating the severity of small-pox, but of stamping it out. No greater mistake was ever made. Misled by men in authority the Newspaper Press has for the last ten years constantly reiterated the statement from time to time "Leaders" and Articles "communicated" in the Daily papers—their authorship has sometimes been traced. The Times, Daily Telegraph, Daily News, Daily Chronicle, and other Daily and Evening papers might be quoted here. One quotation will suffice.

The PALL MALL GAZETTE of the 24th May, 1871, circulated the following:—

"Prussia is the country where re-vaccination is most generally practised; the law making the precaution obligatory on every person, and the authorities *conscientiously* (!!) watching over its performances. *As a natural result* CASES OF SMALL-POX ARE RARE."

This practice of "nobbling the Press" has grown up within the last ten years, and it unfortunately grows with the extension of the "Local Government Board," so called. It is a practice which is incompatible with English notions of a *Free Press*. It is execrable and should be suppressed by Parliament. Statements on authority are put forth, which are frequently found to be subversive of truth—yet even if error be apparent no newspaper will admit a reply from any one who is not a holder of office in some department or other, or one who can obtain a hearing through some functionary.

The facts now presented to my reader are sufficient to convince every unprejudiced person that there is *no truth* in the statements made by men in high office, "That in Prussia small-pox was 'stamped out.'" At the time that the "Pall Mall" article appeared the Committee on the Vaccination Acts was sitting from day to day, and small-pox was then raging in Prussia, where no fewer than *five thousand, two hundred and sixteen died of small-pox*; and in Berlin City, in three months, one thousand eight hundred and thirty died.

To account for this extraordinary mortality it was suggested that it was owing to neglect there was an accumulation of a large number of unvaccinated people. The fact being that there had existed an universal obligation to vaccinate and re-vaccinate in Prussia since the year 1835.

Before proceeding to the statistical refutation of the statements, I beg attention to the law in Prussia.

In Mr. Simon's Papers on Vaccination, I find at page 183, the following reply by the authorities of that country to the questions forwarded by Mr. Simon:—

"In case of an epidemic of small-pox, *re-vaccination* is even "ordered as early as within two years of the period of a previous "*successful vaccination*."

The law on vaccination I quote from the Report, to which I have before alluded, dated 1853. *

The law in Prussia is as follows:—

1.—"Every child is required to be vaccinated before it is a "year old. Parents who do not obey, are fined."

"2.—None are admitted into any school, or

"(a) Any public employment,

"(b) Or allowed to marry without a certificate of vaccination.

"3.—Soldiers are re-vaccinated on entering the army.

Rep. of Epidemiological Society
(See p. 1)

"4.—It is the duty of every parochial medical officer to vaccinate every child.

"5.—Whenever an opportunity presents itself, recourse is had to the cow for fresh lymph. Fifteen shillings reward is given to every person who gives information of a cow being affected."

The Prussian people are pointed to as an example of a well-vaccinated nation, enjoying an immunity from small-pox. This was stated in 1871, by Dr. Seaton, in replying to Question No. 5,603—"Is Prussia well protected?"

"Prussia is well protected, but in Prussia they leave vaccination until the children are twelve months' old."

Again, Dr. Seaton, in replying to Question 5,608, said, "I know Prussia is well protected."

So far from there being a large accumulation of unvaccinated people, it was scarcely possible under the stringent laws for enforcing the practice.

The following information respecting Germany was furnished by Dr. H. Oidtmann, of Linnich, to the Congress held in Paris, in December, 1880, of the International League of Anti-vaccinators, and is of some importance when we consider what has been stated again and again by the advocates of vaccination.

"In Bavaria an obligatory law has existed since 1807, and more or less obligatory in Nassau since 1808. In Baden since 1809. In Auhalt, in the duchies of Saxe and Electoral Hesse since 1815. In Wurtemberg since 1818, and in Haumer since 1821.

"In all the German States the people submitted willingly to the regulations of the legislature and police.

"Infants were vaccinated within a year after birth. Children who were in schools at ten years of age, and recruits on entering the army."

“The proportions of the vaccinated and unvaccinated does not essentially differ in 1880 from that which existed before the law of 1875. Before that year and since, the number of non-vaccinated oscillated between 9 and 12 per cent, while the vaccinated varies between 91 and 80 per cent.”

It is remarkable that in Germany, as in England, the same excuses are made when an epidemic of small-pox occurs, for the great mortality. Before the epidemic in 1871 appeared, vaccination was so complete and so efficient that small-pox had been “stamped out.”

In an article by Dr. Boehr, which appeared in *la feuille periodique Gesundheit, du Professeur Redam, No. 10*, we are informed that on the 8th of April, 1878, an Imperial law was enacted in Prussia to make ^{the} vaccination compulsory. This Act came into operation in 1875, and immediately the small-pox mortality fell lower than it had been for sixty years. Again the old cry was revived when the epidemic has departed. The exclamation is, “See what we have done!!”

The following figures show the absurdity of attributing to the law, which came into operation in 1875, the diminution of the number of deaths from small-pox in the two years which preceded it.

NUMBER OF DEATHS FROM SMALL-POX IN BERLIN.

Years.	Deaths.	Years.	Deaths.	Years.	Deaths.	
	<u>Per Cent</u>		<u>Per Cent</u>			<u>Per million</u>
1861	9 10	1866	210 234	1871	5216	6150
1862	27 30	1867	149 165	1872	1198	1338
1863	227 230	1868	128 142	1873	101	112
1864	620 650	1869	230 260	1874	23	26
1865	247 270	1870	170 190	1875	50	56
				1876	18	20

The hand which penned the Report, boasting of the immunity from small-pox, was not long afterwards compelled to put on record a reverse picture—no longer could it be boasted that in Prussia small-pox was stamped out.

In Mr. Simon's Report to the Local Government Board, March, 1875, New Series, No. IV., at page 59, alluding to the recent epidemic, the following statement appears:—

“Prussia was, after France, the first Continental State to feel the force of the epidemic. The small-pox deaths in Prussia, which in 1870 were 4,200, rose in 1871 to 69,839, equivalent to a DEATH-RATE OF 2,430 PER MILLION LIVING, OR VERY NEARLY TWICE AND A HALF THE SMALL-POX DEATH-RATE IN ENGLAND FOR THE SAME YEAR.”

Prussia “well-vaccinated” suffered more severely than other States in which but comparatively few were vaccinated. Berlin shared in the general disappointment, and failure of vaccination and re-vaccination was made manifest.

In the three months ending December 31st 1871, there died of small-pox in Berlin 1830 persons.

In London, in the same period, there died 980. The population of London being four times greater than that of Berlin had the mortality been in proportion to population, there would have died in London, 7,320: there only died 980, which divided by four would give 245 for Berlin. The mortality in that City so completely vaccinated was therefore *seven times heavier than that of London* in the same epidemic under which we were suffering.

How unwelcome must have been those tidings to Simon, Seaton & Co., and to those eminent members of the Profession, who only a few months previously, expressed to the Committee of the House of Commons their opinion regarding the safety of that well-vaccinated country, Prussia.

190
6150
1338
112
26
4067

I may here observe that the hand which drew up the Report of 1853, referred to at the commencement of this Essay—the hand of Dr. Seaton penned the following lines at page 51 of the "Report of Medical Officer of the Local Government Board, New Series, No. IV." In alluding to the epidemic of 1871-2, he said:—

"In every country attacked, so far as our information extends, the peculiar intensity of this epidemic was manifested by the extreme diffuseness of the disease, by its *attacking [and killing] in unusual proportions persons who were regarded as 'protected' against the disease.*"

At page 60 of the same Report, Dr. Seaton is painfully compelled to write the following:—

"For Berlin the statistics are complete for the whole period of the epidemic which lasted in that City from the latter part of 1870 until July, 1872. The deaths from small-pox in 1871 amounted to 5,084, or 6.15 per thousand of the population, equivalent to a death-rate from small-pox of SIX THOUSAND, ONE HUNDRED AND FIFTY PER MILLION LIVING."

The gentleman (Dr. Seaton) who recorded this, the successor of Mr. Simon, Medical Officer to the Privy Council and Local Government Board, President of the Vaccination Department, in his evidence before the Vaccination Committee of 1871, in reply to Question No. 5,608, said:—

"I know Prussia is well protected."

In Mr. Simon's "Papers on Vaccination," 1857, at page xxiii., it is stated that in Berlin, from 1801 to 1850, the average death-rate from small-pox was 176 per million living. And that statement was made in support of the theory that in well-vaccinated countries there was very little small-pox. *At the very hour when this statement was revived by "official" witnesses under examination, and believed in by the Committee,*

small-pox was doing its work in vaccinated Prussia, where in that and the preceding year more than seventy-four thousand persons fell victims.

Thus the boasted effects of vaccination in reducing the death-rate to 176 per million was exchanged for a mortality of 2,430 per million in a vaccinated and re-vaccinated population.

The death-rate in the whole country of Prussia was the same as that for London only, where the mortality was heaviest.

I have thus, as briefly as possible, disposed of the three countries, Sweden, Denmark, and Prussia, lauded all over Europe as the most vaccinated and best protected countries in the world.

I need not here reproduce proof of the freely expressed testimony of the numerous officials and doctors to that theory. I close this chapter by simply quoting Mr. Simon's statement in the year 1871:—

“In Sweden the mortality from small-pox is now one thirteenth of what it was. In Berlin, and a large part of Austria, but a twentieth. In Copenhagen one eleventh.”

Alas! for vaccination protection.

Appended is a Table (A) showing the small-pox death-rate per million living in Prussia, from 1816 to 1871. It will be observed that the increased mortality, the heaviest in the century, was after seventy years of diligent vaccination.

Table (B) was presented by Dr. Seaton to show the comparative mortality in two vaccinated countries, Prussia and England. It is here again remarkable that well-vaccinated Prussia presented a greater mortality than England, 2430 to 1024.

TABLE XLI (A).

Showing the Small-pox deaths per million living in Prussia,
from 1816 to 1871.

Years.	Deaths.	Years.	Deaths.	Years.	Deaths.
1816	450	1839	140	1862	210
1817	280	1840	160	1863	340
1818	300	1841	140	1864	460
1819	200	1842	220	1865	440
1820	100	1843	280	1866	620
1821	170	1844	270	1867	430
1822	200	1845	160	1868	180
1823	200	1846	150	1869	190
1824	140	1847	90	1870	170
1825	150	1848	140	1871	2430
1826	140	1849	110	1872	2620
1827	250	1850	160	1873	355
1828	190	1851	130	1874	95
1829	190	1852	190	1875	26
1830	240	1853	390		
1831	120	1854	440		
1832	300	1855	90		
1833	600	1856	70		
1834	490	1857	130		
1835	270	1858	260		
1836	190	1859	200		
1837	160	1860	190		
1838	170	1861	300		

At page 85 of the Report of Dr. Seaton, to the Local Government Board, 1874-5, the following Table is given, showing the annual small-pox mortality per million living, of the population in PRUSSIA and in ENGLAND, from 1855 to 1871.

TABLE XLI (B).

	PRUSSIA.	ENGLAND.
Average of the seventeen years—1838-1854	196	405
1855	90	136
1856	70	121
1857	130	206
1858	260	335
1859	200	197
1860	190	140
1861	300	66
1862	210	81
1863	340	293
1864	460	373
1865	440	309
1866	620	144
1867	430	118
1868	180	96
1869	190	72
1870	170	118
Average of the sixteen years—1855-1870.	267	175
1871	2430	1024

AUSTRIA—ITS STATES AND CITIES.

In the Report of the Epidemiological Society, before referred to, I find the following information obtained by the Society from the Austrian authorities:—

1.—Austria is divided into districts (called Kreiss) for vaccination, with a surgeon and physician to each. Each district contains on the average from 30,000 to 120,000 inhabitants, and extends over about 50,000 German square miles.

2.—The duties of the surgeons are to go over their districts two or three times a year, vaccinating all the children who have not yet been vaccinated. He has no other vocation than this, and to see that the vaccination is successful. He is paid by the Government.

3.—The law of vaccination is compulsory in an indirect manner. Thus no child or young person can be received into any school, or house of education, *public or private*. No person can receive any appointment under Government, civil or military, or can have any help or support from the State, without bringing his certificate of successful vaccination.

4.—Any person applying to the Charity Boards for relief of any kind, must produce the certificate of vaccination of themselves and their entire families. If they do not fulfil this obligation the relief is not given.

5.—Whenever the police learn that there are individuals who have not been vaccinated, they have the power of forcing them to submit to the operation.

6.—A certificate of vaccination cannot be admitted as suffi-

cient, unless the person producing it has either marks of vaccination left, or of having had the small-pox.

7.—As soon as the inhabitant of any house is attacked with small-pox, the medical attendant is to give notice thereof immediately to the police, who have orders to give public warning by fixing on the door of the house a placard containing the following words:—

“HERE AT MR. N——N’S THERE IS SMALL-POX.

And all communications with the inmates is immediately cut off, till the eruption is dried up, and the crusts fall off.”

8.—The remains of a person who has died from small-pox must not be followed to the grave by *parents, relations, or friends*, under the most severe penalties. “THE LAW ADMITS OF NO EXCEPTION WHATEVER.”

The following Tables (XLII. & XLIII.) appeared in the Report of the Epidemiological Society, before referred to, showing the number of deaths from small-pox in each year, from 1841 to 1850. The fourth column I have added, after calculating the death-rate per million living (omitting decimals):—



MORTALITY IN AUSTRIA,

TABLE XLII.

AUSTRIA—(LOWER).

Showing the Population, the number of Deaths by Small-pox,
and the death-rate from Small-pox to a million living,
1841-50.

Year.	Population.	Small-pox Deaths.	Small-pox Deaths per Million living.
1841	1360000	571	420
1842	1390000	419	580
1843	1415695	418	295
1844	1439000	349	242
1845	1465000	79	53
1846	1494399	42	28
1847	1500000	91	60
1848	1510000	218	144
1849	1523000	605	397
1850	1538047	309	201

TABLE XLIII.

AUSTRIA (UPPER) AND SALZBURG.

Year.	Population.	Small-pox Deaths.	Small-pox- Deaths per Million living.
1841	847000	267	315
1842	849000	493	580
1843	851298	460	540
1844	853000	157	184
1845	854800	11	12
1846	856694	23	26
1847	855000	21	24
1848	855000	73	85
1849	851000	262	307
1850	852323	73	86

Thirty years ago it was supposed that small-pox had diminished in intensity and frequency, in consequence of the very stringent laws which the Viennese had submitted to, and contrasting the figures of the decade, 1841-50, with those of the previous century, it did appear reasonable to attribute the change to the introduction of vaccination. The general subsidence of all malignant fevers throughout Europe towards the close of the 18th century was not taken into consideration. Hence the false deductions shown so manifestly in other portions of this Essay.

TABLE XLIV.

Provinces.	Population--1870	Deaths from Small-pox, 1871.	Deaths from Small-pox, 1872
Lower Austria . . .	1990708	1169	7540
Upper Austria . . .	736577	264	1045
Salzburg	153159	149	309
Slyria	1137990	190	771
Karinthia	337694	81	121
Carinola	446344	58	187
Triest		33	915
Görst and Gradiska }	600525	18	116
Istria		17	364
Tirol	885789	95	101
Vorariberg ,		28	72
Bohemia	5140544	1129	8098
Moravia	2017274	583	3762
Silesia	513404	165	3133
Galicia	5444683	2703	10820
Bukovina	513404	545	524
Dalmatia	456961	162	...
Totals	20375076	7389	37878

To the foregoing Table (XLIV.) quoted from the Reports of the Medical Officer of the Privy Council and Local Government Board, New Series, 1875, the following note is appended :—

“In Austria (exclusive of Hungary, for which there is no complete return) the total small-pox deaths in 1871 were 7,389, and in 1872, 37,878. The deaths in Vienna in 1871-2 amounted to 3,807. The official returns do not distinguish the ages at death, and state there are no materials for giving them.”

I have not calculated the death-rate per million living. The population being given, and the number of deaths, a sum in the Rule of Three only is needed.

For the sake of comparison, however, I have calculated the death-rate of the total number to the entire population, the result showing a death-rate from small-pox, in the year 1872, of one thousand, eight hundred and eighty, per million.

For the purpose of comparison with other Continental cities, I append the following Table, showing the mortality from small-pox in the epidemic of 1870-1-2, adding London thereto. Looking to the four most important cities, London, Paris, Berlin, and Vienna, they rank as follows in the order of mortality in one year:—Death-rate from small-pox per million living:—Berlin, 6,310; Paris, 5,720; Vienna, 5,170; London, 2,430. Germany, where vaccination has been compulsorily enforced for sixty years, presents a mortality in excess over London with its population of nearly four millions.

TABLE XLV.

Number of deaths from Small-pox in years given in Fifteen Continental Cities and London; the death-rate per million living, and the population.

Year.	CITIES.	Died of Small-pox.	Death-rate per Million living.	Population
1871	Berlin	5216	6310	826341
1871	Breslau	752	3710	202517
1872	Buda Pest	914	3280	278735
1871	Cologne	418	3360	124366
1871	Frankfort	125	1400	89294
1871	Hague	1306	<u>14100</u>	92644
1871	Hamburgh	3647	<u>15440</u>	236279
1871	Liege	386	3410	113256
1870	Paris	10539	<u>5720</u>	1842952
1872	Prague	642	3980	161218
1872	Rome	737	3090	238873
1871	Rotterdam	1701	<u>14280</u>	119155
1872	Trieste	909	<u>6980</u>	130244
1871	Turin	361	1700	211851
1872	Vienna	3334	<u>5170</u>	644375
1871	London	7912	2430	3266398

X The following Table (XLVI.) is an extract from the valuable work on the subject, by Dr. Adolph Vogt, of Berne.

It is valuable, showing not only the fluctuations during half a century of small-pox mortality, but proving that under the most stringent laws for enforcing vaccination and re-vaccination, the deaths from small-pox have steadily increased, reaching in the year 1872, five thousand one hundred and seventy per million.

Taking averages of ten years, the following are the annual death-rates per million living :—

1835 to 1844	...	...	...	...	...	469
1848 to 1857	...	...	...	...	...	395
1868 to 1877	...	...	...	...	...	1,163

This increased mortality in Vienna, the Capital of the Austrian dominions, where vaccination is tyrannically enforced by law and police.

TABLE XLVI.

VIENNA.

D. Vogelt of Vienna

Deaths from Small-pox in Vienna, each year, 1828 to 1877; the death-rate per million living, and population.

Year.	Small-pox Deaths.	Rate per Million living.	Population.	Year.	Small-pox Deaths.	Rate per Million living.	Population.
1828	233	670	306259	1854	93	200	456530
1829	341	1090	312014	1855	129	280	462875
1830	230	720	317758	1856	75	160	469221
1831	267	830	320154	1857	99	210	476222
1832	135	420	322561	1858	155	320	486866
1833	366	1130	324957				
1834	292	890	327353	†			
1835	452	1360	332272				
1836	43	130	337192	1862	413	780	529444
1837	64	190	342111	1863	265	490	540089
1838	107	310	347030	1864	164	300	550733
1839	325	920	351950	1865	121	220	562089
1840	176	490	356869	1866	345	600	573445
1841	93	250	365387	1867	285	490	584802
1842	78	210	373906	1868	288	480	596158
1843	179	470	382424	1869	328	540	607514
1844	141	360	390942	1870	295	480	619561
				1871	473	750	631846
*				1872	3334	5170	644375
				1873	1410	2150	657152
1848	96	230	419563	1874	928	1390	670183
1849	599	1410	425355	1875	750	1100	676791
1850	290	670	431147	1876	1150	1660	690205
1851	100	230	437493	1877	534	747	714548
1852	143	320	443838				
1853	106	240	450184				

* No returns for 1845-6-7-8.

† No returns for 1859-60-61.

In the Report to the Local Government Board, just referred to, it will be noticed in reference to the Austrian States, that —

“The official returns do not distinguish the ages at death, and there are no materials for giving them.”

6750 / 750
16715
111
7320
16715
111

Thanks to Dr. Vogt, of Berne, however, we have the information as far as regards Vienna and Berlin.

Not only have we the ages at death, from infancy to advanced age, but each authority, Dr. Muller, of Berlin, and Dr. Keller, of Vienna, has furnished us with the very desirable information regarding the mortality-rate in the vaccinated and the unvaccinated.

Such information is interesting, inasmuch as in English small-pox hospitals it has been stated that the mortality in the unvaccinated is about six times greater than in the vaccinated.

The following Table furnished by Dr. Vogt contrasts very unfavourably for the vaccinators, with the returns furnished by the Asylums Board Hospitals of London.

The difference in the rate between the vaccinated and unvaccinated is so slight, as to justify the respective Governments to abolish forthwith all compulsory laws, and withdraw all endowment from vaccination.

TABLE XLVII.

BERLIN AND VIENNA.

Deaths per thousand *Cases* of Small-pox, vaccinated and unvaccinated in Berlin in 1871, and in 1872-3-4 in Vienna, at different ages.

Ages in Years	Deaths per Thousand <i>Cases</i> of Small-pox.			
	BERLIN.	Dr. Muller.	VIENNA.	Dr. Keller.
	Vaccinated.	Not Vaccinated.	Vaccinated.	Not Vaccinated.
Under 1	553	604	487	457
1 · 2	426	450	464	411
2 · 3	376	379	313	189
3 · 4	320	386	220	168
4 · 5	394	338	200	143
5 · 10	230	295	188	89
10 · 15	63	53	63	121
15 · 20	42	60	57	65
20 · 30	89	187	69	91
30 · 40	150	291	141	136
40 · 50	254	333	183	200
50 · 60	306	594	371	400
60	345	393	688	375

We are indebted to Mrs. Hume Rothery for a translation of a Report by Dr. Keller, which is invaluable to all who take an interest in the most important branch of this subject, viz., the mortality of infants.

DR. LEANDER JOSEPH KELLER, Head Physician of the Imperial Austrian State Railway Company, four years since presented a Report "On Small-pox cases among the employés

of that Company, in the years 1872-3." The extensiveness of the inquiry by Dr. Keller may be appreciated when it is learnt that the Company employs constantly thirty-seven thousand officials, who with the addition of wives, children, pensioners, &c., represent altogether a population of 55,000 to 60,000. This population is divided among 195 railroad stations, 11 principal work depôts, with 92 villages, with collieries, colonies, and lands. Eighty medical men are employed. Their duty is to attend *all cases* of illness in the workmen and their families. They keep exact records of all cases, and each month, and each year, send a full report to the Directors. The Head Physician has the special oversight of all. Dr. Keller honours that office. Now for the figures.

In 1873 there were 2,054 cases of small-pox. Of these, 1,669 recovered; 385 died. The deaths per cent. were 18·74. Among these cases were:—

	Cases.	Died.	Death-rate.
Vaccinated	1337	219	16·38
Unvaccinated	596	148	24·83
Re-vaccinated	46	7	15·22
Had Small-pox previously	11	2	18·18
Doubtful	64	9	14·06

The greatest mortality is in the first two years of life. This mortality diminishes in the following periods, reaches its minimum between 15 and 20, and again rapidly increases in advancing ages.

This graduated scale corresponds with the general death-rate of mankind.

The following results astounding as they may appear to English "Authorities," cannot be called in question.

The death-rate in the first year of life among the *unvaccinated* was 45·24 per cent. In the second year of life 38·10 per cent.

In the *vaccinated* in the first year of life was 60·46, and in the second year of life was 54·05.

It is clearly seen, therefore, that the mortality was greater in the vaccinated.

In the two years, 1872 and 1873, 2,627 cases of small-pox were treated. Of these 2,151 or 82'15 per cent. recovered, while 469 or 17'85 per cent. died.

If we examine the mortality of these small-pox patients as a whole, with reference to the varying scale of ages, we find precisely such a decreasing and then again *increasing death-rate as corresponds with the general mortality of the human race*. But we find just the same series of variations, if we examine separately the mortality of the vaccinated and of the unvaccinated in the various life-periods. The following percentages result :

TABLE XLVIII.

Showing the ages at death of Vaccinated and Unvaccinated.
Vaccinated. Unvaccinated.

In the first year of life	—	57'14	—	43'78
From 1 to 2 years —	—	52'05	—	38'96
„ 2 to 3 „ —	—	34'15	—	17'86
„ 3 to 4 „ —	—	21'88	—	16'88
„ 4 to 5 „ —	—	23'64	—	13'70
„ 5 to 10 „ —	—	19'23	—	7'76
„ 10 to 15 „ —	—	6'35	—	12'05
„ 15 to 20 „ —	—	6'15	—	7'14
„ 20 to 30 „ —	—	7'42	—	9'26
„ 30 to 40 „ —	—	15'05	—	15'62
„ 40 to 50 „ —	—	17'95	—	16'67
„ 50 to 60 „ —	—	35'00	—	33'33
„ 60 to 70 „ —	—	63'64	—	40'00

We see in these Tables that the death-rate, from the first year of life, in which it is very high, falls gradually, till between the 15th and 20th years of life it reaches its minimum, equally with the vaccinated as with the unvaccinated, and from this point rises again with advancing years. The arithmetical sequence of death percentages is only a little disturbed among the vaccinated between the 4th and 5th, among the unvacci-

nated between the 10th and 15th years of life ; and on a larger number of cases would undoubtedly right itself.

If we now compare the death-rate of the vaccinated and the unvaccinated in the different life-periods, we find that the cases of the unvaccinated between the 10th and 40th year, in which comparatively very few cases occurred, yield a somewhat higher death-rate, whereas in all the other periods, and especially in the first years of life, they show a much lighter death-rate than the vaccinated. Notwithstanding these, for the unvaccinated, very favourable proportions, the total death-rate of all the life-periods shows 23·20 per cent. for the unvaccinated, and only 15·61 for the vaccinated. For here arise precisely the same circumstances as we observed in our previous examination of the cases of the year 1873.

This raising of the death-rate of the unvaccinated is referable solely to *the cases in the first two years of life*. If namely we exclude (from the total mortality, vaccinated 659, died 259—15·61 per cent. ; unvaccinated 793, died 184—23·20 per cent. Table C) the two first years of life, the death-rate of the vaccinated (of 1570 died 210) amounts to 13·37 per cent. : that of the unvaccinated of 515 died 66) to 12·82 per cent., *so that from the second year of life onwards the death-rate of the unvaccinated is more favourable than that of the vaccinated*.

What is here said of the results of the year 1873 will be shown as clearly from the combined Tables of 1872 and 1873, so I will only observe now, that *statistical tables of small-pox cases in which age (and the normal death-rate) is left out of sight, are quite worthless as regards a decision on the question what influence vaccination may have exercised, even if they have been quite correctly and conscientiously drawn up, which unfortunately is very seldom the case*.

I cannot do better than to place before my readers the fol-

following summary of Dr. Keller, which is deserving the attention of all Governments and all peoples.

Dr. Keller says :—

“If we now summarise the results of these statistics, we arrive at the following conclusions :—

1.—Vaccinated and unvaccinated, re-vaccinated, and those who had previously suffered from small-pox, were alike attacked ; the overwhelming majority of the cases were vaccinated, doubtless because there are, except in the first two years of life, many more vaccinated than unvaccinated persons.

2.—In the first two years of life many more unvaccinated than vaccinated children were attacked by small-pox, because at that age there are many more unvaccinated than vaccinated children in Austria.

3.—The death-rate in the first two years of life is in all cases the highest, the death-rate in very advanced age alone excepted ; still it was *lower among the unvaccinated than among the vaccinated children* of this period of life.

4.—If we set aside these two first years of life the death-rate is nearly equal for vaccinated and unvaccinated, but still somewhat less favourable to the vaccinated.

5.—If the mortality of the total unvaccinated cases is higher in proportion than that of the vaccinated, this is not to be ascribed to non-vaccination, but only to the greater proportion of this large mortality occurring in the first years of childhood.

6.—The mortality in the different periods of life follows, both with vaccinated and unvaccinated, the ordinary law of mortality of the human race in these respective periods, and vaccination has no power to alter or affect this law of nature.

7.—Having due regard to all these facts, it appears that vaccination is utterly worthless.

If we now only cursorily examine, with an unprejudiced eye,

the important results which I have here collected from the practice of no less than 80 medical men employed on the railway lines and works, we must at once recognise what great weight attaches to the statement of age in all returns of small-pox cases, if we wish to draw any conclusions from such returns as to the value of vaccination. It is inconceivable that at the present day reports of small-pox cases *should be relied on, in which no mention is made of the age of the patients*, and that from such reports the friends of vaccination would fain draw the conclusion that vaccination exercises some degree of protective power, because the mortality of the unvaccinated is, as a rule, greater than that of the vaccinated. That this is the case we see confirmed in the above reports; but often and often has it already been proven to pro-vaccinators that other considerations, besides that already dwelt on of the tender age of the unvaccinated, must here be taken into consideration, of which I will only mention, one, viz.: "*That only the healthy children are vaccinated, and the sickly ones, as a rule, are left unvaccinated.*"

Having disposed of Austria and its capital, Vienna, I append the following Table, for which we are indebted to Dr. Vogt, showing the small-pox mortality in fourteen of the principal cities, for fourteen years—1864 to 1877—to which is added London, for the purpose of comparison. With the aid of a map the route of the great epidemic of 1870 may be traced from city to city, until its subsidence in 1875.

It will be readily seen that the "well-vaccinated" Berliners suffered a death-rate of six thousand three hundred and ten per million, in the year 1871, while that of London was only two thousand four hundred and thirty per million.

It might weary the reader were I to adduce a greater multitude of statistics of small-pox mortality which I have collected, comprising more than a century, of Countries, States, and Cities. Enough is presented in this Essay to convince the most sceptical, of the fallacy so popular, that vaccination has been an advantage to the world.

TABLE XLIX.

DEATH-RATE OF SMALL-POX PER MILLION LIVING IN 14 CONTINENTAL CITIES, AND IN LONDON—1864 TO 1877.

CITIES.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.
Stockholm	540	1710	800	50	20	220	780	800	310	1320	...	...	...	...
Frankfort	...	...	...	...	...	...	270	1400	210	...	...	20	...	...
Antwerp	390	2130	370	...	20	1190	1320	2290	2200	360	3210	...	20	220
Buda Pest	...	...	...	...	...	...	...	...	3280	580	3250	1460	340	280
Cologne	...	...	190	70	10	40	660	3360	200	60	50	...	...	...
Brisau	...	...	30	60	600	1040	130	3710	2840	140	10	...	...	10
Prague	...	210	250	840	270	190	270	150	3980	2830	290	...	600	?
Vienna	300	220	600	490	480	540	480	750	5170	2150	1390	430	170	70
Paris	220	410	340	160	360	390	5720	1500	60	10	20	140	200	70
Berlin	...	...	310	210	170	300	210	6310	1390	110	20	50	20	...
Trieste	...	160	20	360	530	50	40	260	6980	400	560	10	?	560
The Hague	...	...	...	...	...	...	420	290	14100	110	...	...	10	...
Rotterdam	...	...	...	80	10	...	70	14280	50	10	...	...	...	20
Hamburgh	...	...	...	...	...	...	...	15440	1340	10	10	...	10	20
London	190	210	460	440	190	90	300	2430	540	30	160	20	210	690

Before concluding this portion of the Essay, however, I give some account of the epidemic of 1870-71 among our nearest Continental neighbours.

In France, the epidemic of small-pox began in the closing months of the year 1869. The French Government in the spring of 1870, instituted calf vaccination to avoid the serious risk of arm-to-arm vaccination.

The Municipal Council of Paris voted 10,000 francs for gratuitous vaccination with this calf lymph. The people availed themselves of this provision, and it is said as many as 2,000 persons presented themselves in one morning alone.

Vaccinations and re-vaccinations were performed on thousands, but these fell victims to the small-pox equally with the unvaccinated.

In the year 1870, 10,539 died of small-pox in Paris alone, as seen in the following Table (L), the death-rate reaching no less than *five thousand seven hundred and twenty per million living*.

It will be observed, that Paris alarmed at the mortality of 1868-9, amounting to 1,378 in the two years, calf vaccination was resorted to, calves being led through the streets of the City. This which was to stamp out the small-pox, was followed in the same year by a mortality of TEN THOUSAND FIVE HUNDRED persons in Paris alone.

TABLE L.—PARIS.

Number of Deaths from Small-pox in Paris, in each year, 1860 to 1876, the death-rate per million living, and population.

Year.	Deaths from Small-pox.	Rate per Million living.	Population.
1860	328	200	1670314
1861	549	320	1696141
1862	476	280	1721968
1863	348	200	1747794
1864	384	220	1773621
1865	740	410	1799447
1866	615	340	1825274
1867	301	160	1829694
1868	655	360	1834113
1869	723	390	1838533
1870	10539	5720	1842952
1871	2777	1500	1847372
1872	102	60	1851792
1873	17	10	1856212
1874	46	20	1860631
1875	254	140	1865051
1876	368	200	1851800

Although there was no compulsory law in France, that country has been alluded to by Dr. Seaton, as having done the proper thing in bestowing rewards, prizes, gold and silver medals to vaccinators, to encourage them in the performance of their work.

The following quotation from the Report of the Epidemiological Society, 1853, is ominous —

“In France and Belgium, rewards (prizes, and gold and silver medals) are given to vaccinators, while in Great Britain *no inducements are held out to medical men to encourage them to exertion*” [Page 9].

At page 18, complaint is made of “the pitiful remuneration of vaccinators in England.”

Clause vi. of the Act of 1853 was passed to provide for the better payment of vaccinators everywhere, and now our public vaccinators are not only fairly remunerated for each case, but in addition have awarded to them considerable sums for what in the opinion of the paid Medical Inspectors of the Local Government Board, are called, *successful* vaccinations.

No Country or City on the Continent of Western Europe was spared from the ravages of the last general small-pox epidemic.

In France, during the war with Prussia, the small-pox broke out in Strasburg, and extended through the country.

In Paris alone it carried off FIFTEEN THOUSAND persons, and it has been estimated that in the whole of that country nearly two hundred thousand persons were carried off by small-pox.

Italy was a sufferer also. In MILAN alone nearly 3,000 persons were carried off, and it was observed there that the *percentage of deaths was about equal in the VACCINATED AND THE UNVACCINATED.*

AUSTRIA, in all its various States suffered severely as I

have shown. A country, too, where vaccination had been enforced by tyranny through the police.

LEIPSIK, where vaccination has long been universally enforced, the mortality among the vaccinated was as severe as in the unvaccinated.

The following quotation from an able work by one of the Professors of the University, Dr. Germann, is interesting. The work is entitled, "Historic and Critical Studies on the Present State of the Vaccination Question ;" in 3 vols.

At pages 62-63, Superintending-Surgeon Reitz, is quoted thus :—

"In the beginning of the century, when the number of vaccinated persons in the population was comparatively inconsiderable, the number of small-pox cases among these was also naturally much less than among the unvaccinated remainder, then nearly the whole of the population. When, however, as years went on, vaccination being *universally enforced*, the number of the vaccinated continually increased, we find a progressive increase of small-pox cases among the vaccinated, till in these last times, when almost the whole population, excepting very young children are vaccinated, the number of small-pox cases among unvaccinated adults have become vanishing small.

"Precisely the same is the case with re-vaccination. For what vaccination cannot do, that can re-vaccination do just as little. So long as the percentage of the re-vaccinated in the population was small, the number of re-vaccinated small-pox cases was small also, as must from the above have been expected ; but *with the extension of re-vaccination* has the percentage of re-vaccinated small-pox cases increased. Everywhere re-vaccinated small-pox patients were to be found, till their number often considerably exceeded that of the unvaccinated."

At page 105 of this Essay (Table XLV.) the reader will find a summary of the small-pox mortality in fifteen Cities, contrasted with that of London.

The following brief notices of some of these places may be interesting in relation to the degree of enforcement of vaccination in various Countries, not alluded to in the foregoing text of this Essay.

In Hanover the first edict on vaccination was issued on the 24th April, 1821. The second edict on the 15th August, 1839. These two edicts are in substance as follows:—

1. *Every* subject is bound to have the children under his authority or care vaccinated.

2. In May and June, each year, a general vaccination is performed. To this vaccination, all children born in the previous year must be brought, who have not had small-pox or cow-pox or have been already vaccinated three times ineffectually.

3. The children whose vaccination has not been successful, must be brought again to the next public vaccination, until they shall have been vaccinated with *effect*.

Yet in Hanover the small-pox has raged, defying the lymph-charged lancet to arrest or even to mitigate its severity.

In Frankfort, proclamation was made on the 20th November, 1805, that vaccination was *advisable*. On the 6th September, 1811, it was made *compulsory*. Thus:—

1. All physicians shall give a certificate of vaccination to all persons vaccinated by them, and keep a register of—

(a) The name of the individual.

(b) The date of vaccination.

(c) The course of the disease.

2. Children in pauper houses, asylums, &c., *must* be vaccinated.

3. No children can be admitted either into public or private schools without being vaccinated.

4. No person can enter as a labourer, clerk, apprentice, &c., &c., in the business of artisan, merchant, artist, &c., or as *servant, without showing regular testimonials of vaccination.*

5. Soldiers shall be vaccinated or *re-vaccinated.*

6. Everyone wishing to become a citizen of the town, must be vaccinated and his children also.

Yet in Frankfort the small-pox death-rate in 1871 was fourteen hundred per million persons living.

In Rotterdam the public vaccination of the City has been conducted since 1799, by an Association of 16 ordinary members, and of extraordinary and honorary members. The first name inscribed in the list of honorary members was that of Edward Jenner.

It has, since its foundation, performed the public vaccination of Rotterdam, and distributed lymph through Holland and its Colonies.

Early in 1868 the Society opened a second station—for the practice of animal vaccination—relying on the statements that had been made as to the results of animal vaccination in France and Belgium.

With what result is seen in the fact that in the year 1871, the death-rate was fourteen thousand two hundred and eighty per million living.

In Hamburg there are no laws to *enforce* vaccination, but no child can be admitted into the schools without a certificate of vaccination.

In the year 1871, the death-rate from small-pox was fifteen thousand four hundred and forty per million living.

In BELGIUM, vaccination was enforced :—1st., by Royal decree, dated 18th April, 1818. It was made imperative on all persons receiving relief from any public charitable fund, and to cause children not having had small-pox naturally, or by inoculation, to be vaccinated.

2nd. It applied to all institutions where children are received and maintained, partly supported by endowments or private benevolence, but subsidised from public sources.

Gold medals of encouragement are awarded to practitioners who pay particular attention to gratuitous vaccination.

In 1850, a new decree was issued, specially applying to vaccination, appointment of vaccinators, their duties, and remuneration.

In 1852, amendments were made in respect to these two points.

Yet in Brussels the epidemic was felt severely, calf-lymph notwithstanding.

VICARIOUS MORTALITY.

There is a prevailing belief that the visitations of epidemics seriously increase the mortality ; that small-pox, cholera, and other severe and malignant diseases, add very seriously to the number of deaths. This belief, however, is not founded on facts.

People hear of the ravages made by small-pox, and of the thousands who die, and imagine that so many deaths are added to the general mortality.

It is a remarkable fact, however, that as a rule, there is no addition to the general death-rate, but a *diminution* in the death-rate during the epidemic.

When giving evidence before the Committee of the House of Commons, in 1871, I stated this as a general law. My observations were received by the Committee with great scepticism.

I had noticed in studying the subject of epidemics, that when small-pox prevailed, the general death-rate was less. There was, indeed, a *saving* of 3,000 per million in the general mortality ; also that in the absence of small-pox the death-rate was heavier.

Since going to press, the Annual Report of Dr. Tripe, Medical Officer of Health for Hackney has appeared, in which he states :—

“The death-rate for the district has been exceedingly small, as only 350 deaths of inhabitants were registered in the district, and with 18 added for deaths in the Atlas Floating

Small-pox Hospital, gives the very low death-rate of 13·7 per thousand inhabitants per annum, against 20·6 for all London."

This shows a saving of no less than *seven thousand* per million persons living.

In the volume which I published in 1868,* I elucidated the law of substitution, a law of vicarious mortality which controlled the general mortality in epidemics of Zymotic diseases.

I referred to Sweden as well as to various other countries, besides the United Kingdom, in illustration of that law.

In reference to Sweden, I stated in a comment on the Tables furnished by the Swedish Government, that so far from small-pox adding to the general mortality, it not infrequently occurs, that when it is present, and the mortality considerable, the general mortality is lessened.

I gave the following instances in which the law of displacement or vicarious mortality was, so apparent in regard to Sweden.

In the year 1829 there died of Small-pox ... 53	The mortality from all Causes in 1829 was 82719
In the year 1853 there died of Small-pox ... 1145	The mortality from all Causes in 1833 fell to 63947

The whole mortality was thus 18,772 more than when the small-pox mortality was low.

Again in 1846 the mortality from small-pox was only two in the year; the mortality from all causes was 72,683.

In 1851 small-pox rose to 2,488, when the mortality from all causes fell to 72,506—*127 less than when the small-pox*

* Vaccination; its Tested Effects on Health, Mortality, and Population. Bailliere & Co.

killed only two—notwithstanding that the population had increased 173 thousand.

Turning to Mr. Simon's Papers on Vaccination, page 161, I find a Report of the Faculty of Medicine, at Prague, confirming the prevalence of the law which I have illustrated, proving that no saving of life has been effected by vaccination.

P R A G U E.

PRIOR TO VACCINATION.		SINCE VACCINATION.	
Small-pox Deaths. Average per year,		Small-pox Deaths. Average per year.	
7 years.		24 years.	
1796 to 1802...	... 7633	1832 to 1855 ...	... 287
Proportion of Small-pox Deaths to Population was... 1 in 396		Proportion of Small-pox Deaths to Population reduced to only ... 1 in 14741	
WHOLE MORTALITY.—ALL CAUSES.			
PRIOR TO VACCINATION.		SINCE VACCINATION.	
1 death to 32		1 death to 32½	

Where was the gain?

Twelve years since I published the foregoing instances in illustration of the law of substitution which I had discovered years before. We have been lately favoured by Rektor P. A. Siljeström, of Stockholm, with an ample chart, showing the fluctuations in mortalities, extending over a period of 104

years—from 1774 to 1880. In commenting on the chart, the Swedish Committee completely confirms the prevalence of the law which I had elucidated. The following is a notable illustration. He says:—

“The following conclusions may be drawn from these returns:

“1st.—Formerly small-pox did not have the enormous influence on the general mortality that has been attributed to it comparatively with other epidemic diseases. For example, comparing the year 1778, when small-pox was excessive [16,607 deaths] with the years 1809, 1829, and 1857, when this mortality (from small-pox) was either of little importance or nearly *nil*, it is found that for the *first-named year* the general mortality was 55,028, and for the last three named years, respectively 63,233, 75,998, and 97,898. Also in 1874, small-pox mortality being very considerable, general mortality was however less than that of the years 1810 and 1852, when small-pox mortality had little importance. And even in 1800, when not only the mortality by small-pox but also the general mortality was extraordinary, this latter mortality was less considerable, taking population into account, than in the years 1808 and 1809, and so on. *Consequently if the small-pox could by any means have been got rid of, it would probably have no influence on the general mortality. If the latter mortality has become less, the causes must be sought for in the social ameliorations, political, economical, and hygienic, of our period.*”

The following Table (No. LI.) shows at a glance the foregoing facts.

TABLE LI.

Showing the fluctuations in mortality from Small-pox, and the increase of general mortality in its absence.

Year.	Deaths from Small-pox.	Deaths from all Causes.	Corrected for increase of Population.
1778	16607	55028	... ..
1809	2404	93552	63233
1829	53	82719	75998
1857	560	101419	97898

The right hand or fourth column exhibits the mortality which should have prevailed.

In my evidence before the Select Committee of the House of Commons on the Vaccination Acts 1871, I stated (see page 40 of the Blue Book) that when small-pox prevailed, there was usually a reduction in the general mortality, and I recited the fact that according to the Registrar-General's Returns for England and Wales, in the year 1838, when small-pox killed 16,268 persons, the small-pox was the fifth most fatal disease, the general death-rate to 1,000 living was 22.240.

In the year 1864, when small-pox only killed 7,684, it occupied the eighteenth place on the list of fatal diseases, and now the general death-rate to 1,000 living had increased to 23.890.

In 1838 there died of Small-pox ...	16,268	} All Causes.	342,529
" " Scarlatina ...	5,802		
In 1840 there died of Small-pox ...	10,434	} All Causes.	359,561
" " Scarlatina ...	19,816		

Here it is seen that small-pox went down from 16,000 to 5,000, while scarlatina went up from 10,000 to 19,000, the mortality from all causes being 17,000 less when small-pox was at its worst.

This law of displacement or substitution of one disease for another, is also seen in the interchange of typhus and small-pox. In Sweden for instance :—

Year.				Deaths.
1825—Small-pox	...	...	...	1,243
Typhus ...	...	...	...	3,962
1829—Small-pox	...	...	...	53
Typhus ...	...	...	...	9,264
1829—Small-pox	...	...	...	53
All Causes	...	...	...	82,719
1833—Small-pox	...	...	...	1,145
All Causes	...	...	...	63,947
1846—Small-pox	...	...	...	2
All Causes	...	...	...	72,683
1851—Small-pox	...	...	...	2,488
All Causes	...	...	...	72,506

The diminution in the small-pox mortality in the first few years of the present century was erroneously attributed to vaccination.

The Report for 1803 of the cow-pock inoculation at the Vaccine-pock Institution, London, written by the Physician to the Institute, at page 111, tells us :—

“It is not manifest that the vaccine inoculation has been a benefit to population, however great a one it has been to individuals.”

There were thirteen physicians, among whom were the celebrated Drs. Pearson, Keats, Brande, Nelson, and Carpue.

The statement of these thirteen physicians was approved by the President, the Earl of Cholmondley, the Right Hon. Lord

Petre, Sir George Baker, Bart., Sir W. Lee, Bart., the Rev. Dr. Henry Jerome De Sulis, &c.

They had before them, as their report shows, the Tables of Heberden, of Lettsom, and of Partridge. They had the bills of mortality of London, and it was demonstrated that there was no saving of life by vaccination. When they published their report of four years work, 30,000 vaccinations had been performed in London within the bills of mortality.

At page 109 these facts appear :—

IN THE FOUR YEARS PRECEDING THE VACCINE PRACTICE.

Year.	Small-pox Deaths.	All Causes.
1795	1040	21179
1796	3548	19288
1797	522	17014
1798	2237	18155
	Total...7347	Total..75636

FOUR YEARS DURING THE VACCINE PRACTICE.

Year.	Small-pox Deaths.	All Causes.
1799	1111	18134
1800	2409	23068
1801	1461	19374
1802	1579	19379
	Total...6560	Total...79955

So far, therefore, from the general mortality being lessened

by vaccination, the mortality increased by more than 4,000 while 787 fewer died of small-pox.

The assertion made by Mr. Simon and Dr. Seaton, when examined by the Committee of 1871, as well as by *every other witness presented by the pro-vaccinators*, on that occasion, viz.,—that a vast saving of life had been effected by vaccination—is so egregiously false that I cannot withhold the facts which I now present in confirmation of my individual evidence before the same Committee.

The following Table illustrates the interchange of Zymotic diseases, and the lessened mortality during small-pox in London:—

1871.		
For the week ending <i>January 7th</i> :—		
	1st Week's Deaths.	5th Week's Deaths.
Scarlatina	116	55
Small-pox	79	196
Under 5 years of age	651	603
All Causes	1828	1683

Thus when small-pox deaths were 79, the mortality for all causes was 1,828. In the fifth week small-pox went up to 196, the whole mortality from all causes then fell from 1,828 to 1,683, a diminution of 145. At the same time the mortality under 5 years of age was diminished from 651 to 603 when small-pox increased.

The same law prevails when those fatal diseases, cholera and diarrhœa, are present. Though they may slay their thousands, there is no general increase in the mortality.

The following Tables shew this; in reference to

Year	CHOLERA IN ENGLAND.				
1849, there died of Cholera	53,273
„ „ of Diarrhœa	17,833
				Total...	71,106

MORTALITY FROM ALL CAUSES.					
1847—1848...	...	...	...	...	819,510
1849—1850...	...	...	...	...	809,441
					10,069

Deaths in England were *ten thousand less when diarrhœa and cholera killed 71,000 of the people.*

1866-7 died of Cholera	...	...	...	...	15,300
„ „ of Diarrhœa	...	...	...	...	37,031
				Total ...	52,331

MORTALITY FROM ALL CAUSES.					
1864-5	...	...	...	...	986,440
1866-7	...	...	...	...	971,762
					14,678

When cholera and diarrhœa swept off 52,000 persons, the whole mortality was nearly *fifteen thousand less.*

Let us go back to the days when Plague took the lead as Death's messenger, and we find the same law controlling the Zymotic fatality.

PLAGUE IN LONDON.

Seven Years.	Died of Plague.	All Causes.
1604 to 1611	14752	64994
1612 to 1619	171	64517
		477

Four hundred and seventy seven ^{more} ~~fewer~~ persons died when plague swept off nearly fifteen thousand persons.

The foregoing is a striking confirmation of the observation of Thucydides, the Greek historian, who said :—

“ During the plague at Athens *other diseases declined*, and “ besides this, none of those diseases to which they were accustomed affected them at that time, or *whatever there was ended in this.*”

These illustrations might be multiplied to any extent. I think those I have recited are sufficient to expose the error so constantly put before the public that small-pox has saved millions of lives.

I am prepared to prove from the records of the Registrar-General that the prevalence of small-pox is always accompanied by a saving of life, as exhibited in the diminution of the deaths from all causes.

While writing this page, I have opened the “ Annual Summary ” of the Registrar-General for 1880, just issued, June, 1881.

Speaking of the decade, 1871-80, the Registrar-General says :—

“ One disease alone in the class [Zymotic] showed exceptionally a rise, and no inconsiderable one. This was small-pox, which owing to the two outbreaks of 1871-2 and 1877-8, gave a death-rate of nearly fifty per cent. above the previous average of small-pox. . . . The decennium which closed with the year 1880, was of *lower mortality in London* than any of the preceding decennial periods.”

If we ask how this is to be explained, here is the solution :—

Ten Years ending.	Died of Small-pox.	Died of Scarlatina.	Died of Fever.
1870	8347	39714	27149
1880	15551	25598	12997
	Decrease...	14116	14152

Thus when the small-pox mortality was nearly doubled, *i.e.* INCREASED by 7,204, that from scarlatina DIMINISHED by 14,116, that from fever DIMINISHED by 14,152.

The *whole* mortality from all causes was reduced from 24.4 per thousand persons living in London to 22.8 per thousand, showing a SAVING of life to the extent of one thousand six hundred per million, which represents, taking the population at 3,500,000, a saving of five thousand six hundred lives.

While I write, small-pox is prevalent in the eastern district of London.

The mortality from small-pox increases, but the general mortality diminishes. It is now 2.0 per thousand less than when small-pox approached the locality—that is, it has gone down from 22.0 per thousand to 20.0.

Surely such facts should lead men to shun those professed exponents like the Thames Police Court Magistrate, who committed a mother (and infant) to gaol, for refusing to vaccinate, telling her “she was a foolish woman, for vaccination had saved millions of lives.”

If the reader will refer to the Chapter on Infant Mortality, he will find further illustrations of the law elucidated above in reference to infantile life.

INFANT MORTALITY.

Of the various branches in which the study of vaccination may be pursued, perhaps the most important of all is its effect on Infant Mortality.

The statements made by the advocates of the process as to the saving of millions of lives, has been refuted again and again. The persistent adherence to an opinion without foundation, betokens either a lack of competency to apprehend the truth, or an obstinate and wilful maintenance of that which is untrue, because established and endowed.

It is surprising that the educated and professional classes of Society should be so credulous as to accept the dicta of State-aided and State-constituted authorities, without examination.

The ex-parte statements made by Police Magistrates and Judges, who should be the last to accept as evidence the theories and speculations of their guides, is discreditable. The "Bar," it is hoped, will yet be awakened to their duty, and not continue in *the face of actual evidence*, to fine and imprison a parent for protecting his child from that which he believes to be a pollution.

I cannot refrain from expressing here my strong conviction that Infant vaccination is a *crime*, and the law which enforces it is chargeable not with *child slaughter* only, but what is worse than death, the perpetual defilement of the body, and consequent deterioration, a sin to be transmitted to the third and fourth generation.

I have in other parts of this Essay shown that the *general* mortality is not increased when small-pox prevails, but on the contrary, is a gain to population. This was plainly shown in my evidence before the Select Committee in 1871.

After all that has been said on the saving of infant life, it may appear strange to those who have never made the subject an object of inquiry, that the law of vicarious mortality, elucidated in the foregoing chapter, also prevails in reference to infant life.

Perusal of my evidence before the Committee of 1871, will convince every mind open to information, that there is no saving, but a *loss* of life in children under five years of age by vaccination.

Mr. George Gibbs subsequently supported and strengthened my statement by the production to the Committee of a list of figures, abstracted from the Registrar-General's returns. At page 337 of the Report of the Select Committee, the Table then presented will be found.

It gives the number of deaths from *all causes of children under five years of age* in fifteen years, 1839 to 1853, *prior* to the Compulsory Vaccination Act of 1853 coming into force, and the number during fifteen years *after* the passing of the Act, *viz.*, 1854 to 1868.

In the first period, the deaths were 2,239,758, and in the second period, 2,769,220.

The death-rate *per million living*, therefore, was in the first period, 132,240; and in second period, 137,671; the mean annual death-rate being 8,816 and 9,178, showing a loss of 362 per million of population, equivalent to a loss of 108,600 lives in a population of 20 millions.

Nothing can be more convincing than these facts.

I distinctly assured the Committee that no saving of infant

life had resulted from vaccination. The Committee seemed startled by the statement, while a suspicious smile was observable on the countenances of some of the members, more distinctly apparent in the Doctors.

This, so-considered, bold statement called forth a desire for further information. The incredulous Medical Officer of the Privy Council was appealed to, and the following Table was ordered to be furnished by the Registrar-General to the Committee of the House of Commons, in 1871, AT THE SUGGESTION OF MR. SIMON, with the object of proving that "*Dr. Pearce had talked nonsense when he stated that there had been no saving of lives by vaccination,*" either of the whole population, or of children.

TABLE (LI).

Mean Annual Death-rates from small-pox, and from all Causes; and of Children under Five Years per million living, in England and Wales, from the year 1838 to 1869.

	5 years. 1838-42.	3 years. 1847-9.	5 years. 1850-4.	5 years. 1855-9.	5 years. 1860-4.	5 years. 1865-9.
Causes of Death.						
All Causes	22069	24204	22317	22085	22263	22754
Small-pox	571	303	274	198	190	145
Deaths by all Causes of children under five years of age, per million living under five ... }	65722	69353	68316	68987	67823	69212

General Register Office.
Somerset House, 8th May, 1871.

GEORGE GRAHAM,
Registrar-General.

* *Notice.*—No Returns for England and Wales in 1843-4-5-6.

When Mr. Simon produced the blank "form" to be filled up, as above, to the Committee, Mr. W. E. Forster reminded him that the department was so fully occupied with the Census returns, that he thought it not advisable to apply to the Registrar-General's office. Mr. Simon still urged upon the Committee the desirableness of obtaining the returns which he had suggested, IN ORDER TO REFUTE THE STATEMENT I HAD MADE TO THE COMMITTEE.

Disappointed as well as surprised at the result, when the above return was produced before Mr. Simon, at a sitting of the Committee, no more was said than that THE FACTS WERE ASTOUNDING. But they confirmed the evidence which I had presented to the Committee from various sources.

It is plainly shown in the foregoing return of the Registrar-General,

1st. That, as shown in column No. 1, which included the longest enduring and the heaviest epidemic of small-pox in the present century, 1838 to 1842, when the death-rate from small-pox amounted to *five hundred and seventy one per million persons living* the deaths from *all causes* were fewer than in either of the whole series of columns.

2nd. That so far from the Infant mortality of this country being diminished (as vainly boasted) by the general adoption and enforcement of vaccination, it has vastly increased. Thus in column No. 6, it is shown that the death-rate from small-pox was only 145 per million living. The deaths from all causes, of children under five years of age, were 3,480 per million more than in the heaviest small-pox mortality year, shown in column No. 1.

Let me, however, go further, and bring to bear on this subject evidence of a most important nature, to which Dr. Farr has called attention, and which is contained in my evidence before the Committee in 1871.

It was in 1856 I first called attention to the law of substitution, which is so completely confirmed by the following.

Dr. Robert Watt, of Glasgow, lecturer on the theory and practice of Medicine in Glasgow, published in the year 1813 a treatise on chin-cough (whooping-cough). He dedicated the treatise to Sir Gilbert Blane.

Dr. Watt gave the following Table to show that vaccination had diminished the mortality from small-pox which in

1783 to 1788	...	was 20 in 100
1789 to 1794	...	was 18 in 100
1795 to 1800	...	was 19 in 100
1801 to 1806	...	was 9 in 100
1807 to 1812	...	was 4 in 100

Dr. Watt states that this "gratifying result of vaccination was counterbalanced by a slight increase in the proportion of "deaths by whooping-cough, and a great increase in the deaths "by measles."

Dr. Watt then makes the astounding discovery, that

"In the first period, when a *third* of all the deaths under "five years of age were caused by small-pox, a *child had the* "best chance of reaching its tenth year."

He says: "I began to reflect how different the case must "be now. In *eight* years little more than 600 died of small- "pox, whereas in *one* year, 1784, the deaths by that disease "alone amounted to 425, and in 1791 to 607; which on both "occasions exceeded the *fourth of the whole deaths in the year.*"

In 1808, when small-pox only carried off 5 per cent. of the number who died, still half, or more than one half of the children born, perished before the tenth year of their age.

The same *general* mortality had ruled for upwards of 30 years, it being no heavier in 1780, when small-pox deaths were

25 per cent. of the whole number of deaths, than in 1813, when they were only 4 per cent.

“This,” says Dr. Watt, “was a discovery I by no means expected, and how it could have come to pass appeared to me inexplicable. From every circumstance which had come under my observation, the efficacy of vaccine inoculation appeared certain. The experience of 13 years pretty extensive practice had confirmed me fully in this opinion. But the question recurred, how are we to account for the same or nearly the same number of deaths under 10 years of age? As no new disease has appeared, the small-pox must have been made up by a greater mortality among the other diseases of children.

“Has it been equally divided among them, or has a greater share fallen on some than others?”

Dr. Farr, of the Registrar-General's office, commenting on these observations (vol. 30, page 214), by Dr. Watt, makes the following important and apposite remark, showing incontrovertibly that there is *no saving of infant life by vaccination* :—

“*The mortality of children is as high, probably higher, than it was in the last 18 years of the last century.*”

These observations made by Dr. Watt, of Glasgow, so long ago as the year 1813, had evidently been lost sight of until Dr. Farr quoted them in the Annual Report of the Registrar-General in the year 1840, vol. 30, page 214.

At pages 40 and 41 of the Report of the Select Committee, 1871, will be seen my reproduction of the important facts which had lain dormant so long.

At the same time I expressed my concurrence in the opinion expressed by Dr. Farr, in the following sensible remark. “To operate on the mortality, protection against everyone of the fatal zymotic diseases is required, otherwise the suppression of one disease element opens the way to others.”

It has been said in disparagement of statistics that figures may be made to prove everything. Facts, however, when indisputable, are the weapons with which this great battle between Vaccinists and Anti-vaccinists must be fought out. By facts in figures, the vaccine theory will be exploded.

In a Parliamentary paper, a return ordered by the House of Commons, at the suggestion of Mr. Hopwood, the Member for Stockport, on the 2nd of September, 1880, we have presented to us a number of facts which completely answer the question, "Does vaccination save infant life?"

It is not disputed that fewer now die from small-pox in infancy than formerly, but other diseases have taken its place, while there is every reason to fear, to put it mildly, that the increased mortality from inoculable and constitutional diseases, is the consequence of infiltrating the lymphatics of infants of tender age.

The return alluded to gives the death-rate per million of infants a year old, from nine different causes, as the condensed Table (No. LIII.) shows. Of these nine diseases, six are without doubt inoculable, and may therefore be implanted as a seed contained in the vehicle called vaccine lymph, viz., syphilis, scrofula, tabes-mesenterica, skin diseases, erysipelas, and phlegmon, including pyæmia. The remaining two in the classification, bronchitis and diarrhœa, it may be urged, are chiefly from climatic causes, severe cold, and severe heat. While atrophy and debility, including premature births, may be eliminated from diseases originating in poverty, neglect, and strong drink. The number of deaths under this head is appalling. That a large proportion are caused by vaccination, I have reason to suspect from the number of infants I have seen where atrophy has followed vaccination.

TABLE LIII.—Parliamentary Returns (condensed) relating to Deaths in England and Wales. Proportion of Deaths among Infants under one year per million of births from each of the following causes; and the Annual average in three periods.

Years.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
8 Years, 1847 to 1854	Syphilis. 4860	Scrofula. 2930	Tabes Mesenterica. 24340	Skin Diseases. 1405	Erysipelas. 6590	Phlegmon, including Pyæmia. 1546	Bronchitis. 41570	Diarrhœa. 97026	Atrophy & Debility, including Premature Births. 298939	Total of the preceding nine Causes. 479203	All other Causes. 772579	Yearly Average. 772579
12 Years, 1855 to 1866	14369	7286	39765	3056	9457	3178	108068	154789	468241	808533	1019378	Yearly Average. 84948
12 Years, 1867 to 1878	1997	607	3313	254	788	266	9006	12982	39020	67377	84948	Yearly Average. 84948
	20859	10708	51968	4048	9778	2092	168797	212053	456856	935539	875854	
	1738	892	4330	337	815	174	14066	17671	38071	77961	72996	Yearly Average. 72996

General Register Office, Somerset House,
[392—Sess. 2] 5th November, 1880.

BRYDGES P. HENNIKER,
Registrar-General.

The preceding Table (No. LIII.) exhibits at a glance the frightful increase of INFANTILE SYPHILIS.

In the first period, 1847 to 1854, the annual average death-rate of infants from this cause was 607. In the second period, 1855 to 1866, the death-rate increased to nearly double, being 1,197, and in the third period, to no less than 1,738 or nearly trebled.

If we look at the second column of causes—SCROFULA—we find a similar advance, from 366 in the first period, 607 in the second, and to 892 in the third period.

The third column—TABES MESENTERICA—the advance in mortality is in round numbers, from 3,000 in the first period, to 4,300 in the third.

Columns 4 and 5—SKIN DISEASES AND ERYSIPELAS—together advanced from 998 in the first period, to 1,152 in the third period.

I need not advert to the remaining columns. The reader has before him an abundance of indisputable facts.

It may be remembered that when Mr. Sclater-Booth was asked by Earl Percy whether my Vital Statistics* No. I., were reliable, the reply given to his Lordship was, "We do not dispute the figures, but we take exception to the inference."

I leave my readers to draw their own inference. There is but one, and that is, that Infant mortality has increased since vaccination was made compulsory, that increased mortality has kept pace with the steps, in the shape of Acts of Parliament, to the operation of which Acts, this increase is due.

I think I need go no further in the production of evidence to prove that the lamentable increase of Infant mortality is a sufficient answer to the mistaken assertion that vaccination has saved millions of lives.

* See concluding portion of this Essay.

VACCINE. WHAT IS IT?

I cannot conclude this Essay without adverting to this all-important matter—What is meant by lymph?

Not one of the series of Acts of Parliament, under which the practice called vaccination, is enforced defines what is meant. Neither in preamble or section. No provision or direction as to its source or nature is to be found. Indeed, Parliament, acting under dictation nominally from Her Majesty's Privy Council, which really meant Mr. Simon, its Medical Officer, passed the Compulsory Act, without the slightest manifestation of desire on the part of the people. By this Act the crime of vaccination is enforced, and honest, conscientious people are made criminals, fined and imprisoned for disobedience to a human* law, which, if obeyed, renders them criminals in the sight of a higher law.

Parliament needed to be educated—that process is now in due course. One of the Members of the House of Commons, Dr. Cameron, who is a steadfast believer in vaccination, has told the House that it is the duty of Parliament, through the Local Government Board to provide lymph from calves in which the disease has been artificially planted.

Dr. Cameron tells the House that arm to arm vaccination should be abolished, on account of the danger of inoculating other diseases with the lymph. Besides all this, Dr. Cameron tells the House that the lymph now in use supplied by

* For human, read *inhuman*.

Government is bad, worn out, &c., &c. His words were thus reported in the *Times*, London daily paper:—

“The recurrence of small-pox, therefore, in the latest period of mortality, almost as high as that experienced prior to the Vaccination Act, shows either that the *protective virtues of vaccination are mythical*, or that there is something radically wrong in our national system of vaccination.”

How many kinds or varieties of lymph are now in circulation it is well nigh impossible to define, with the mingling one with another, and modifying by successive transfers from child to child.

We ask what is lymph?

First, we have Jennerian lymph, which has come down to us from his day. What *it is* or *was*, is described thus in Dr. Jenner's original work, published in 1801, dated Berkeley, Gloucestershire, December 20, 1799. The title of the work is, “An Inquiry into the causes and effects of the Variolæ Vaccinæ; a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the name of

THE COW POX.

The Third Edition.

Dedicated to the King.”

At page 2 of that work, the following description of vaccine matter is found:—

“There is a disease to which the horse, from his state of domestication, is frequently subject. The farriers [veterinaries] have called it *the grease*. It is an inflammation, and swelling of the heel, accompanied at its commencement with small cracks or fissures, from which issues a limpid fluid, possessing properties of a very peculiar kind. This fluid seems capable of generating a disease in the human body (after it

“has undergone the modification I shall presently speak of
“which bears so strong a resemblance to the small-pox, that I
“think it highly probable it may be the source of that disease.”

“In this Dairy county a great number of cows are kept, and the office of milking is performed indiscriminately by men and maid-servants. One of the former having been appointed to apply dressings to the heels of a horse affected with the malady I have mentioned, and not paying due attention to cleanliness, incautiously bears his part in milking the cows, with some particles of the infectious matter adhering to his fingers. When this is the case it frequently happens that the disease is communicated to the cows, and from the cows to the dairymaids, which spreads through the farm, until most of the cattle and domestics feel its unpleasant consequences.”

“This disease has obtained the name of the cow-pox. It appears on the nipples of the cows, in the form of irregular pustules. At their first appearance, they are generally of a palish blue, or rather of a colour somewhat approaching to livid, and are surrounded by an inflammation. These *pustules*, unless a timely remedy be applied, frequently degenerate into phagædenic ulcers, which prove extremely troublesome. The animals become indisposed, and the secretion of milk is much lessened.

“Inflamed spots now begin to appear on different parts of the hands of the domestics employed in milking, and sometimes on the wrists, which run on to suppuration, first assuming the appearance of small vesications produced by a burn. Most commonly they appear about the joints of the fingers, and at their extremities: but whatever parts are affected, if the situation will admit, these superficial suppurations put on a circular form, with their edges more elevated than their centre, and of a colour distantly approaching to blue. Absorption

takes place, and tumours appear in each axilla. The system becomes affected, the pulse is quickened. Shiverings, succeeded by heat, general lassitude, and pains about the loins and limbs, with vomiting, come on. The head is painful, and the patient is now and then even affected with delirium. These symptoms, varying in their degrees of violence, generally continue from one day to three or four, leaving ulcerated sores about the hands; which, from the sensibility of the parts, are very troublesome, and commonly heal very slowly, frequently becoming phagædenic, like those from which they sprung. During the progress of the disease, the lips, nostrils, eyelids, and other parts of the body are sometimes affected with sores, but these evidently arise from their being heedlessly rubbed or scratched with the patient's infected fingers. 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—and in this case very few appeared on the arms. They were very minute, of a vivid, red colour, and soon died away without advancing to maturation. So that I cannot determine whether they had any connection with the preceding symptoms."

"Thus the disease makes its progress from the horse (as I conceive) to the nipple of the cow, and from the cow to the human subject. Morbid matter of various kinds, when absorbed into the system, may produce effects in some degree similar. But 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; neither exposure to the variolous effluvia, nor the insertion of the matter into the skin, producing this distemper."

"In support of so extraordinary a fact, I shall lay before my reader a great number of instances. But, first, it is necessary

to observe that pustulous sores frequently appear spontaneously on the nipples of the cows; and instances have occurred, though very rarely, of the hands of the 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 blueish or livid tint so conspicuous in that disease. No erysipelas attends them, nor do they show any phagædenic disposition, as in the other case, but quickly 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. It is very apt to appear also when they are suckling their young. 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.*"

In the foregoing quotation we have a full description of Jennerian "virus."

Summarised we have first, *necessarily*, a "decrepid old oss," as I heard a veterinary's stableman describe what the disease called "grease" is.

Secondly, we have the purulent matter exuded from the sores on its heels. This is transferred to the udder of a milch cow—therein maturing, phagædenic ulcers appear.

Thirdly, the matter from these ulcers is transplanted in the milk-maid.

Fourthly, we have the description by Jenner of the serious constitutional disturbance which follows, and the local suffering of those who are "thus affected."

So much for the *true* preventative *cow-pox* virus.

Dr. Jenner goes on to say that the spontaneous cow-pox is not protective. "The *pustules* are of a much milder nature than those which constitute the true cow-pox."

He strongly cautions his confrères against making use of spontaneous or natural cow-pox, lest the want of discrimination should occasion an idea of security from the infection of small-pox which might prove delusive. A convenient loop-hole out of a difficulty.

I have so far quoted from the original work of Jenner. A perusal of Baron's life of Jenner leads us to an acquaintance with details not at all comforting to those with whom cleanliness is a part of their religion,

Baron says, vol. i., page 242 :—

"Although there is now no room for any doubt that variolæ "may be thus derived [from the fissured heel of the horse], yet it is "probable that the "grease," as it is called, in the horse's heel, "is only the mode in which the disease commonly exhibits itself "in that animal."

The following remarks of Dr. Jenner himself will best illustrate this statement :—

"The skin of the horse is subject to an eruptive disease of a "vesicular character, which vesicle contains a limpid fluid "showing itself most commonly in the heels. The legs "first become œdematous, and *then* fissures are observed.

"The skin contiguous to these fissures is seen studded with "small vesicles, surrounded by an areola. THESE VESICLES "CONTAIN THE SPECIFIC FLUID. 'It is the ill-management of the "horse in the stable that occasions the malady to appear more

“frequently in the heel than in other parts.* I have detected
“it connected with a sore in the neck of the horse, and in the
“thigh of a colt.”

Baron adds :—

“It has been established by unquestionable evidence that
“matter from a horse does produce a pustule similar in appear-
“ance to the vaccine ; and likewise possessing the same pro-
“tecting power ; and *that* without having passed through the
“constitution of the cow.”

Baron goes on to say, that a disease analogous in its nature to that of cow-pox exists in the horse, the sheep, the goat, the she-ass, and the dog—all these poxes having the same origin, and identical with the human small-pox.

Some of these poxes got mixed up, and thus commingled, and the evil was propagated, over many parts of Europe. The disease resulting from the mixture of variola and vaccine was milder in its nature than ordinary small-pox, but very different from the benign *solitary* pustule which characterizes the *variola vaccinae*. †

Whether or not the original virus of Jenner is still extant, it matters not. We have, it is well known, had lymph, mis-called vaccine, circulating all over the kingdom, and not only here but in our colonies, which have for years been supplied from this country. This lymph has chiefly been obtained by inoculating cows with matter from small-pox pustules in the human subject. It is well known that the late Mr. Ceely, of Aylesbury, obtained lymph by this method, so also did Mr. Badcock, of Brighton, subsequently of Camberwell Grove, London. The late Sir J. Cordy Burrows, M.D., of Brighton, bore testimony to the practice in the following words :—

“The people seemed scarcely to understand what vaccination

* † Baron's *Life of Jenner*, vol. i., p. 244.

‘meant. The vaccine lymph taken from a child was nothing “more than what had *originally passed from a small-pox patient through a cow.* In 1856-58, he took an active part in the “movement, and assisted in inoculating seventeen cows, “producing in three cases ‘vaccine lymph,’ and from these the “world was supplied.”

Mr. Badcock with such “lymph” vaccinated fourteen thousand persons, and forwarded supplies of it to more than four hundred practitioners.

These experiments have beguiled the profession, and the people, into the belief that this stuff thus obtained is cow-pox lymph.

The following little paragraph from the speech of Dr. Cameron, in the House of Commons, is in substance a repetition of what I had stated to the Committee in 1871 :—

“Now what I want to know is what has become of this “lymph? My reason for asking the question is that more “recent and searching experiment has demonstrated that *it is “not vaccine lymph at all, but small-pox lymph.*”

And thus it was that the people have had imposed upon them a delusive sham, under the protection of an Act of Parliament. No responsibility attaches to the vaccinator, whatever happens to the victim, for the Act, as I have stated above, does not define the nature or source of the diseased matter engrafted into the systems of innocents. No responsibility?!!

No, indeed. Dr. Stevens, a salaried Government Inspector of Vaccination, under the Local Government Board, stated at the recent Congress of Medical men, that—

“He had seen more vaccinated children than any man “either alive or who had lived, and all his experience led him “to the opinion that the arm to arm system practised in this

“country was as nearly perfect as a system could be made, and as efficacious as could be desired.”

It need not be inquired here, which of these the Government should believe—Dr. Cameron, an independent Member of the House of Commons—or Dr. Stevens, the salaried official of the Local Government Board?

There is no agreement among vaccinists as to where proper lymph is to be had. How many more there are it is difficult to tell. How many more there will be, it is impossible to predict.

The following is an enumeration of a few :—

No. 1. Jennerian horse-poxed cow-pox.

No. 2.* Jennerian horse-pox, pure and simple

No. 3. Swine-pox, with which Jenner inoculated his eldest son.†

All the foregoing he considered protective.

No. 4. Spontaneous Gloucestershire cow-pox.

No. 5. Human small-pox—cow modified, by Ceely, Badcock, and Co.

Then we have importations of—

No. 6. Passy lymph.

No. 7. Beaugency lymph.

No. 8. Brussels lymph.

And to be had wholesale, “calf lymph,” at the various factories instituted by the medical traders in lymph-virus, whose incomes are in amount by no means trivial.

What confusion, yet what mystical properties, nevertheless, are attributed to all these various kinds of lymph.

* In Baron's Life of Jenner, vol. 2, pp. 225-6. see, “In 1817, Jenner inoculated direct from the horse, without the intervention of the cow, and with this matter he supplied the National Vaccine establishment, and it was extensively distributed in England and Scotland.”

† This child died, aged 20, of consumption.

I have not noticed all that are in circulation. There is syphilitic lymph, scrofula lymph ; there is also lymph from the consumptive, and it may be from a thousand modifications of disease.

To obviate the "untoward accidents" alluded to in my letter to Mr. Sclater-Booth, which will be found at the end of this volume, an outcry has been raised for vaccination direct from the calf.

Heifer-derived lymph is no novelty on the Continent. It has been adopted in France by Dr. Depaul, M. Lanoix, and Dr. Chambon. In Berlin by Dr. Pissin, in 1865. In Brussels by Dr. Warlomont. In Russia by M. Proseroff, under the direction of the Government. In Naples by Dr. Negri, who was the first to adopt animal vaccination, propagated upon a succession of calves, the original virus being obtained from pocks in cows spontaneously affected with the natural disease. In the spring of 1868 it was adopted in Rotterdam, and in Amsterdam in 1869. In Vienna, also, animal vaccination has been tried.

With what result will be shown in the next epidemic.

It has been contended by Dr. Chas. Drysdale, and others, that the production of a vesicle by calf lymph is a proof of successful vaccination. Dr. Drysdale contended that this is the case, in a paper he read before the Medical Society of London. My reply on that occasion was, that the only test of success is to be sought in recurring epidemics, and not in the appearance and character of the vesicle.

This was the ground I took when giving evidence before the Committee of 1871. Yet vaccine authorities have the effrontery to assert that the vaccination Inspectors can decide the question of successful or unsuccessful vaccinations.

So far as the operation is concerned, it may be successfully

performed, but the idea associated with the term, "successful vaccination" is that of security against taking small-pox.

To assume that the perfect vesicle is a proof of protection is simply a repetition of the presumption of Jenner when he stated, "*a priori*," that the recipient of his virus was "protected for ever"—"*a posteriori*," an exploded fallacy.

Pertinent and potent were the words of Mr. Birch, Surgeon to St. Thomas's Hospital, and to the Prince of Wales, King George the Fourth, in a work published in the year 1807, entitled, "Serious reasons for uniformly objecting to the practice of Vaccination." They are as follows, at page 72:—

"We are yet left unsatisfied as to the nature and origin of "what is called cow-pox. It is a disorder known only to the 'cow doctor in *dirty dairies*, though we are taught to play "with it as a blessing revealed from heaven to this enlightened "age."

This observation of an eminent surgeon made in the year 1807, is as applicable in the year 1881. Cow-pox, like small-pox, is a "dirt disease,"—a "disease of filth." The idea of protecting the body from disease by septic poisoning is so inconsistent with every principle of sanitary science and wisdom, that it is amazing that intelligent people should catch at such straws as cow, horse, or heifer-poxing to save them from small-pox.

I cannot conclude this chapter better than by adopting the memorable words of Lord Mahon, quoted by Mr. Dudgeon, of Quorn:—

"It is a melancholy reflection for human nature how easily "and completely even the most intelligent classes, of even the "most intelligent people may sometimes be imposed upon. "There seems some inherent proneness in mankind to "great national delusions. The same men whom

“we find as individuals, watchful and wary, not readily trusting professions, nor often misled by appearances, will as a body often swallow, open-mouthed, the *most glaring absurdities and contradictions* ; and the *press which ought to be detectors of such delusions, will sometimes stoop to be their instruments.*”

ADDENDUM.

The following reprint, with additions of the Author's letter to the Right Hon. G. Sclater-Booth, M.P., under the title of "Vital Statistics," is added to the foregoing Essay, at the request of a number of friends, showing as it does at a glance, the increase of Small-pox in England and Wales, notwithstanding the vigilance of Vaccination authorities; pointing out also the dangers arising from Vaccination in the production of diseases more serious than that of Small-pox.

It is now universally admitted by the Profession that such dangers do exist—a fact which, when stated by the Author, when examined in 1871, was not only doubted, but the possibility denied by those who had committed themselves to the orthodox belief that it was impossible.

The Author has been flattered by communications on all sides—not confined to this country, but also from the Continents of Europe and America, on the production of facts entirely unanticipated, and which the Author is informed has done more than any other work to attract the attention of the Profession, Parliament, and the Public.

The stupendous and startling facts thus made known regarding the Author's native country, led him to an extensive inquiry regarding our Continental neighbours, the result of still more extended inquiries is the presentation of the foregoing Essay.

VITAL STATISTICS

SHOWING THE INCREASE OF

SMALL-POX, ERYSIPELAS, &c.

IN CONNECTION WITH THE EXTENSION OF

VACCINATION

COMPILED FROM THE REGISTRAR-GENERAL'S RETURNS:

A LETTER

ADDRESSED TO THE

RIGHT HON. G. SCLATER-BOOTH, M.P.,

PRESIDENT OF THE LOCAL GOVERNMENT BOARD, 1877.

BY

CHARLES T. PEARCE, M.D.,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

(SECOND EDITION revised, with addition of five years' Statistics).

1880.

Table of Mortality in England and Wales, showing the Increase of Small-pox, Erysipelas, and Syphilis concurrently with the Extension of Vaccination. Compiled from the "Reports" of the Registrar-General,

BY CHARLES T. PEARCE, M.D., M.R.C.S., Eng.

Years.	Births in years ending 31st Dec.	No. of persons successfully vaccinated.	Rate per cent. vaccinated to Births	Deaths from Small-pox.	Deaths from Erysipelas.						Deaths from Syphilis.		Deaths from all causes.	
					Under 1 year old.	1--	2--	3--	4--	Total under 5 years old.	All ages.	One year.		All ages.
1851	615865	...	...	6997							1998	...	598	395396
1852	624012	397128	66.0	7320							2075	...	623	407135
*1853	612391	366593	61.0	3151							1813	...	622	421097
1854	634405	677886	108.7	2808							1937	...	964	437905
1855	635043	448519	72.0	2525	64	31	19	14	711		2245	579	947	425703
1856	657453	422281	65.9	2277	610	65	42	14	744		2125	740	879	390506
1857	663071	411268	66.3	3936	421	48	30	19	531		1573	656	957	419815
1858	655481	455004	69.5	6460	599	56	31	15	710		2026	684	1006	449656
1859	689881	445020	66.4	3848	569	68	35	20	703		1954	778	1089	440781
1860	684048	483927	70.5	2749	512	70	32	16	638		1665	767	1067	422721
1861	696406	425739	62.1	1320	492	56	28	19	601		1542	798	1177	435141
1862	712684	437693	62.3	1628	458	49	36	13	7		1523	867	1245	436566
1863	727417	646464	89.7	5964	612	62	31	22	18		1920	983	1386	473837
1864	740275	529479	71.6	7684	618	55	30	15	733		2104	1089	1550	495531
1865	748069	578583	77.9	6411	579	58	29	8	682		1963	1155	1647	490909

1866	753,870	45,4885	61.0	3029	527	64	26	10	10	637	1675	1181	1662	500689
*1867	768,349	490598	64.0	2513	467	35	18	13	11	544	1450	1241	1698	471073
1868	786,858	513042	66.5	2052	647	60	22	13	11	753	1952	1364	1886	480622
1869	773,381	524143	67.3	1505	589	53	26	15	7	690	1873	1361	1859	494828
1870	792,787	472881	60.0	2620	685	42	18	17	10	772	2140	1422	1858	515329
*1871	797,428	693104	87.4	23126	716	54	28	13	4	815	2240	1317	1742	514879
1872	825,907	669320	82.6	19094	617	47	19	5	5	693	1787	1410	1831	492265
1873	829,778	501180†	60.2	2364	675	42	25	13	8	763	2046	1376	1843	492520
1874	854,956	493285	58.4	2102	857	65	34	14	8	978	3387	1488	1997	526632
1875	850,607	498952	58.5	980	864	52	26	20	17	979	3085	1554	2142	546453
1876	887,968	506587	57.5	2408	700	70	38	21	8	837	2327	1580	2139	510315
1877	888,180	529376	60.0	4269	667	56	20	12	7	762	2077	1550	2074	500496
1878	891,906	513575	57.5	1856	582	57	24	9	7	669	1870	1647	2182	539872
1879	880,389	519715	58.7	336	561	47	22	9	13	651	1824	1492	1669	526255
1880														
1881														
1882														
1883														
1884														

The population of England and Wales—1851, 17,927,609; 1861, 20,066,224; 1871, 22,712,266; 1881, 25,968,286.

* 1853, Vaccination made compulsory; 1867, Act for its more stringent enforcement; 1871, Vaccination still further enforced.

† Beyond these there were 25,917 cases of REVACCINATION during the year 1872-3.

The second and third columns of figures are furnished by the Local Government Board. Tenth Annual Report. The numbers and causes of death are from the Registrar General's reports: certified at Somerset House.

*To the Right Honourable G. Sclater-Booth,
M.P., &c., President of the Local
Government Board.*

SIR,—

I beg to submit to your notice in the following pages a few statistical facts which at the present moment, in the midst of an epidemic of Small-pox, have special interest.

While the country is agitated and alarmed at the increase of Small-pox, notwithstanding the vigilance with which the Vaccination Laws are enforced, and the compulsory isolation of patients in hospitals in every direction, it becomes our duty to inquire how it is, that after seventy years of Vaccination, in the last twenty-four of which the compulsory law has prevailed, the disease carries off a larger number in each epidemic visitation.

It was confidently predicted that the endowment and enforcement of Vaccination by the State would speedily extirpate Small-pox; it is to be regretted, however, that here, as in Sweden and Germany, the most vaccinated countries, the disease increases in mortality in spite of Vaccination.

It will be seen by a glance at the table of figures presented herein to your notice, that so far from Small-pox having diminished in mortality since the Act of 1853, when Vaccination was made compulsory, it has increased; thus, in the first epidemic since the Act came into operation, viz., in the

Years	
1857-8-9	the deaths were 14,244
1863-4-5	(the second epidemic) they rose to 20,059
1870-1-2	(the third epidemic) they reached 44,840

So that, notwithstanding the very considerable increase in the number of Vaccinations, the disease has advanced in an increasing ratio.

Indeed, while the population increased between the first and second epidemics *seven* per cent. the deaths from Small-pox increased *forty* per cent.; and while from the second to the third epidemic the population increased *ten per cent.*, the Small-pox deaths increased no less than *one hundred and twenty per cent.* Or if we take two decennial periods from the passing of the compulsory law in 1853 we find the

Deaths from 1854 to '63 were 33,515
and from 1864 to '73 „ 70,458

So much for Vaccination in relation to Small-pox, in England and Wales.

The Registrar General in his recently issued ANNUAL SUMMARY, for the year 1880, thus tabulates the Small-pox mortality of London for the last 30 years:—

Decades.	Estimated Mean Population.	Small Pox Deaths.
1851—60.	2,570,489.	7,150.
1861—70.	3,018,193.	8,347.
1871—80.	3,466,486.	15,543.

Let me now direct your attention to the sad increase of Infantile Erysipelas concurrently with the increased number of infantile vaccinations.

Taking the five years 1860-4, and contrasting them with five more recent years 1870-4, we find the following figures:—

DEATHS FROM ERYSIPELAS.

Periods of 5 years	Under 1 year old	Under 5 years old	All ages
1st period 1860-1-2-3-4	2,692	3,280	8,754
2nd period 1870-1-2-3-4	3,550	4,021	11,600

Thus the lamentable fact is apparent, that of the deaths from Erysipelas at *all ages*, nearly one-third occurred in the *first year of life*—the year of Vaccination—while the total number was greatly in excess of that which can be accounted for by increase of population.

Erysipelas is *now* an infantile disease, and it is to be noted that Erysipelatous symptoms are the recognised effects of proper Vaccination. The connection, therefore, between Vaccination and Erysipelas is established, and has lately been fatally shown in the deaths of eight children in the Gainsborough Union,* reported upon to your Board by Mr J. Netten Radcliffe, one of the staff of Inspectors attached to the Local Government Board. In Leeds and Liverpool similar cases have occurred, and all may be taken as special instances confirmatory of the general deductions to be drawn from the tables herein contained.

The third point which I feel it my duty to bring under your notice is, that another fatal—a loathsome—disease has increased concurrently with increased Vaccination: I allude to Syphilis.

That Syphilis has been conveyed together with vaccine lymph, ample and sad proof was adduced before the Select Committee of the House of Commons, 1871, on the Vaccination

* Two more deaths have since been added to the list.

Acts. It is there recorded that eleven young persons four of them women, engaged in a house of business at the West-end of London were Vaccinated *by order of their employer*. The child selected was obtained at one of the London "State Vaccine Stations." Those eleven victims were Syphilised from that child and were placed, by direction of the late Medical Officer of the Privy Council, under the care of Mr. Jonathan Hutchinson, to whose evidence, page 283 of the Report, I must direct your attention for the details.

Dr. Ballard, one of the Official Inspectors of the Local Government Board, in his "Essay on Vaccination," relates some unfortunate occurrences, in which no fewer than 57 children were Vaccino-syphilised, of whom a considerable number died. Nurses and mothers were diseased through suckling these infants, and Syphilis was thus conveyed through Vaccination from children to mothers, and from these to their husbands.

The fact being thus fully established that Syphilis is sometimes conveyed in Vaccine lymph, reference to the Table will show the strong probability of the *frequent* occurrence of this calamity.

It will be seen that there died of Syphilis in the

Five years	Under one year old	Of all ages
1860-1-2-3-4	4,504	6,425
1870-1-2-3-4	7,009	9,271

In the first period, therefore, nearly two-thirds of the whole number *were under one year old* (the year of Vaccination), while in the second period, when the number of Vaccinations

had greatly increased, no less than seven-ninths of the whole number of deaths were of infants not a year old.

I am not aware that vice and immorality have, in this country, increased to such an extent as to account for this fact; but I have reason to know, from thirty years' professional experience, that arm-to-arm Vaccination is followed by untoward accidents of this nature, and indeed, safety *cannot be guaranteed by the State*, seeing that in the eleven cases referred to the above child presented no signs of Syphilis when the lymph was taken, and it was only discovered when the mischief had been done.

To whatever cause or causes the increased mortality from this terrible disease may be attributed, I submit that to Vaccination must be awarded a large share.

The annexed table shows the increase from one period of five years to the other of the three diseases referred to :—

Five years	Deaths from Small-pox	Deaths from Erysipelas			Deaths from Syphilis *	
		Under 1 year	Under 5 years	All ages	Under 1 year	All ages
1st period, 1860-1-2-3-4	19,346	2,698	3,280	8,754	4504	6,425
2nd period, 1870-1-2-3-4	49,366	3,550	4,021	11,600	7009	9,271

Beyond all this sad increase of suffering and mortality, there is another serious aspect of the question—the increasing resistance of the people to a law they consider oppressive, because they are unconvinced of the efficacy of the process it

* The increase of Syphilis under one year old is slightly over fifty per cent., and of *all ages* slightly under fifty per cent.

enforces, while of its accompanying dangers they have, as they believe, sufficient evidence.

I have thus briefly placed the foregoing facts under your notice in the hope that the whole subject of Vaccination will be reconsidered in all its bearings, and rigidly inquired into by a Royal Commission.

I have the honour to remain, Sir,

Your obedient servant,

CHARLES T. PEARCE.

LONDON, *February 20, 1877.*

*Notes on the History of Inoculation and Vaccination in England,
with List of the principal Acts of Parliament relating thereto.*

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

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.

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

Small-pox was thus kept constantly alive by means of inoculation, to the end of the century, and continued to provide new centres of contagion. The mortality considerably increased.

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

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.

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

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."

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, and of Sir Francis Burdett being rejected. The grant was passed by 60 to 47.

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.

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 that the authority of the Managing Board is not necessary to enable vaccination to withstand these prejudices."

In 1840, inoculation for the small-pox was made a penal offence 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.

In 1841, an Act to amend an Act was passed to extend the practice of vaccination.

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.*

In June, 1855, Mr. John Gibbs addressed a letter to the President of the Board of Health, Sir Benjamin Hall, on the Scientific, Religious, and Political Aspects of Compul

sory Vaccination. This was ordered to be printed by the House of Commons.

In 1856 a Bill was introduced into the House of Commons, which contained the monstrous clause to *forcibly* vaccinate every child up to 13 years of age; and another Clause to empower Coroners to hold an inquest on the body of every child dying of small-pox if not vaccinated.

In 1856 the medical officer of the Privy Council, addressing members of the medical profession, and referring to objections to the course of the 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 mové 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."

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

In Measures to amend and extend the provisions of the Act of 1853 were subsequently passed.

In 1863 the law enforcing vaccination was extended to Scotland and Ireland.

In 1867 an Act to consolidate and amend the laws relating to vaccination was passed.

In 1871 a Select Committee of the House of Commons to inquire into the Act of 1867, a Report of which was ordered to be printed.

In 1871 a more stringent Act was passed *compelling* Boards of Guardians to prosecute.

ACTS OF PARLIAMENT RELATING TO VACCINATION.

ENGLAND AND WALES.

- 3rd & 4th Vic. c. 29. Entitled, an Act to extend the practice of Vaccination, 23rd July, 1840.
- 4th & 5th Vic. c. 32. An Act to amend an Act to extend the practice of vaccination, 21st June, 1841.
- 16th & 17th Vic. chap. C (100). An Act further to extend and make compulsory the practice of Vaccination, 20th August, 1853.
- *24th & 25th Vic., c. 59. An Act to facilitate proceedings before Justices, under the Acts relating to Vaccination, 1st August, 1861.
- 30th & 31st Vic. c. 84. An Act to consolidate and amend the Laws relating to Vaccination, 12th August, 1867.
- 34th & 35th Vic. c. 98. An Act to amend the Vaccination Act, 1867, 21st August, 1871.
- †37th & 38th Vic. c. 75. An Act to explain the Vaccination Act, 1871 ; 7th August, 1872.

*In 1857 a Bill was introduced by private members to repeal the Act of 1853, but did not pass.

†A Bill "to amend the Vaccination Acts" was introduced to the House in March, 1872—prepared and brought out by Mr. Pease, Mr. Leeman, and Sir Thomas Chambers—which, if passed into an Act, would have provided that no parent should be fined a second time, if he had already paid the full penalty of twenty shillings." The Bill was rejected.

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