

Pickings from pro-vaccinist polemics.

Contributors

Royal College of Physicians of London

Publication/Creation

Stone : Publisher not identified, 1906.

Persistent URL

<https://wellcomecollection.org/works/c5jfu8av>

Provider

Royal College of Physicians

License and attribution

This material has been provided by This material has been provided by Royal College of Physicians, London. The original may be consulted at Royal College of Physicians, London. where the originals may be consulted. Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

610.912 - 085.371

PICKINGS FROM
PRO-VACCINIST
POLEMICS.

SIXPENCE.

6.912
-085.371

SL

616.912.085 371.



Alf. J. Downey, Del. et Sculp.

London 1858

Pickings from

Pro-vaccinist Polemics.

Vaccination

134(d.9)

Abbreviations.

Pickings from
Pro-vaccinist Polemics.

1906.

PUBLISHED AT STONE, STAFFORDSHIRE,
BY
W. J. FURNIVAL, 16 GRANVILLE TERRACE.

ROYAL COLLEGE OF PHYSICIANS
LIBRARY

CLASS	616.912-085.371
ACCN.	4286
SOURCE	
DATE	

Pro-vaccinist Folemics

1906
PUBLISHED AT STONE, STATIONERS,
BY
H. A. FURNIVAL, 16 GRANVILLE TERRACE.

Abbreviations.



B.M.J.—British Medical Journal.

H. & P. V.—History and Pathology of Vaccination,
by Professor Crookshank. (H. K. LEWIS)

R. C. V.—Royal Commission on Vaccination,
1889-1896.

V. I.—Vaccination Inquirer, published by National
Anti-Vaccination League, 50 Parliament
Street, London, S. W.

Abbreviations.

B.M.J. - British Medical Journal.

H.C.P.L. - History and Pathology of Vaccination,
by Professor Cookbank. (H. K. Lewis)

R.C.V. - Royal Commission on Vaccination,
1880-1886.

N.A. - Vaccination Inquiry, published by National
Anti-Vaccination League, 20 Parliament
Street, London, S.W.

Compiler's Preface.

IN selecting the following paragraphs from Pro-vaccinist sources mere slips of the pen or errors of memory are avoided and only deliberate assertions chosen, for which the supporters of vaccination may justly be held responsible.

Dr. Edward Jenner himself confessed to not a few undesirable results of Cowpoxing, and although in his writings the deductions are obscured by quaint redundance and analogy, a careful perusal reveals a consciousness on his part of uncertainties in the grounds of belief in his own nostrum. Dr. Pearson and Dr. Woodville, his contemporaries and in a sense his most capable and energetic coadjutors in the practice of vaccination, each express opinions as to its real nature at variance with those put forward by Dr. Jenner. Since then, pro-vaccinist literature has abounded in contradictions, and whenever any profound thinker has probed into the foundations of the faith he has usually emerged surprised and dissatisfied with its insecurity.

True, many of the assertions herein reproduced are whittled down by contexts, yet being deliberate expressions of opinion, they still stand as cogent evidence against the endowment and enforcement of such a controversial and ever-changing practice—at present in its fifth distinct phase, viz.: practically back at inoculation days: a covert violation of penal law.

As to the unutterably disgusting filth itself—vaccine pus—Dr. Cory's lectures alone supply ample evidence to deter a loving parent from submitting his cherished and infinitely dear ones to the hazards of vaccination; and as if Dr. Cory had not said enough, Dr. Malcolm Morris supplies a list of vaccinal eruptions that makes one feel as though we had turned over some rotting old log and exposed a squirming multitude of crawling loathsome creatures of darkness,—the claws of death.

Well might Dr. Gordon Stables write that "his mind was like a ship's mainsail before the vessel goes round on another tack—all a-shiver—Gloucester notwithstanding;" and Sir B. W. Richardson prophesy "the sooner we cease our worship and take down our idol the better for us altogether," and, that great pro-vaccinist, Sir John Simon say "In the permanent avoidance of epidemic disease cleanliness is the sole safeguard."

I selecting the following paragraphs from Pro-vaccinist sources more slips of the pen or errors of memory are avoided and only deliberate assertions chosen, for which the supporters of vaccination may justly be held responsible.

Dr. Edward Jenner himself confessed to not a few undesignable results of *cowpoxing*, and although in his writings the objections are obscured by verbal redundance and analysis, a careful perusal reveals a consciousness on his part to maintain in the grounds of belief in his own position. The *London and the Woburn* his contemporaries and in a sense his most capable and energetic opponents in the practice of vaccination, each express opinions as to its real nature, at variance with those put forward by Dr. Jenner. Some of the pro-vaccinist literature has abound- ed in contradictions, and whatever any profound thinker has projected into the bosom of the truth he has usually contrived to get lost in its intricacies.

Digitized by the Internet Archive
in 2015

which do not in the least diminish the force of the evidence against the endorsement and enforcement of such a controversial and ever-changing practice as present in its fifth distinct phase, viz. practically back at vaccination days: a correct violation of good law.

As to the matter of disagreeing with itself, vaccine pos- sibly, the only vaccine which supply ample evidence to date, a leading journal from submitting his chemical and analytical data, and in the practice of vaccination, and as H. C. Coy had not said enough for stating those supporters, but of various opinions that makes one feel as though we had found out some thing old and expected a genuine multitude of cerebral, bestsome creatures of darkness, the class of death.

Well might Dr. Gordon Stables write that "his mind was like a ship's mainmast before the vessel goes round on another tack—all a-shiver—Gibraltar notwithstanding," and Sir H. W. Kebleton prophesy "the sooner we cease our warfare and take down our flag the better for us altogether," and that great pro-vaccinist, Sir John Simon say "in the present evidence of epidemic disease

PICKINGS FROM PROVACCINIST POLEMICS.

DR. EDWARD JENNER, M.D., F.R.S., &c., &c.,
&c. :—

“Should it be asked whether this discovery (investigation) is a matter of mere curiosity or whether it tends to any beneficial purpose? I should answer, that, notwithstanding the happy effects of INOCULATION, with all the improvements which the practice has received since its introduction into this country, WE SOMETIMES OBSERVE IT PROVE FATAL, and from this circumstance we feel at all times somewhat alarmed for its consequences. But as fatal effects have been never known to arise from the COWPOX, even when impressed in the most unfavourable manner, that is, WHEN IT HAS ACCIDENTALLY PRODUCED EXTENSIVE INFLAMMATIONS AND SUPPURATIONS ON THE HANDS; and as it clearly appears that this disease leaves the constitution in a state of perfect security from the infection of Smallpox, may we not infer that a mode of inoculation might be introduced preferable to that at present adopted, especially among those families which, from previous circumstances, we may judge to be predisposed to have the disease unfavourably? It is an excess in the numbers of pustules which we chiefly dread in the Smallpox; but in the Cowpox no pustules appear, nor does it seem possible for the contagious matter to produce the disease by effluvia or by any other means, as I have before observed, than contact; so that a single individual in a family might at any time receive it without the risk of infecting the rest, or of spreading a disease that fills a country with

terror. Without further research, I should therefore not in the least hesitate to inoculate Adults, and children NOT VERY YOUNG, with the matter of Cowpox in preference to common variolous matter. HOW FAR IT MAY BE ADMISSIBLE ON TENDER SKINS OF INFANTS further experiments must determine. I have no other scruples than such as arise from the DARKISH APPEARANCE of the edges of the incisions on the arm of the boy whom I inoculated with this matter, THE ONLY EXPERIMENT I HAD AN OPPORTUNITY OF MAKING IN THAT WAY. However it proved of no consequence, as the arm never became painful nor required any application."—(See *B.M.J.* 23rd May, 1896, p 1259 and *H. & P.V.* Vol. 1 p 263.)

“When this is the case it commonly happens that a disease is communicated to the Cows, and from the Cows to the Dairymaid inflamed spots now begin to appear on different parts of the hands of the domestics employed in milking absorption takes place and tumours appear in each axilla. The system becomes affected—the pulse is quickened; and shiverings, with general lassitude and pains about the loins and limbs, with vomiting, come on. The head is painful, and the patient is now and then even affected with delirium. These symptoms generally continue from one day to three or four, leaving ulcerated sores about the hands, which, are very troublesome and commonly heal slowly, frequently becoming phagedenic, like those from whence they sprung. The lips, nostrils, eyelids, and other parts of the body are sometimes affected with sores Thus the disease makes its progress from the Horse, to the nipple of the Cow, and from the

Cow to the human subject.”—(*Jenner's Inquiry. see H. & P.V. Vol. II, p 8*).

“It is singular to observe that the Cowpox virus, although it renders the constitution unsusceptible of the variolous, should, nevertheless, leave it unchanged with respect to its own action. I have already produced an instance to point out this, and shall now corroborate it with another. Elizabeth Wynne, who had the Cowpox in the year 1759, was inoculated with variolous matter, without effect, in the year 1797, and again caught the Cowpox in the year 1798. When I saw her, which was on the 8th day after she received the infection, I found her affected with general lassitude, shiverings, alternating with heat, coldness of the extremities, and a quick and irregular pulse. These symptoms were preceded by a pain in the axilla. On her hand was one large pustulous sore.”—(*Jenner's Inquiry. see H. & P. V. Vol. II, p 26*).

“There are certainly more forms than one, without considering the common variation between confluent and distinct, in which the Smallpox appears in what is called the natural way—about seven years ago a species of Smallpox spread through many of the towns and villages of this part of Gloucestershire: it was of so mild a nature, that a fatal instance was scarcely ever heard of I never saw or heard of an instance of its being confluent.”—(*Jenner's Inquiry. H. & P.V. Vol. II, p 27*).

“A medical gentleman who for many years inoculated in this neighbourhood frequently preserved the variolous matter intended for his use,

on a piece of lint or cotton, which, in its fluid state was put into a vial, corked and conveyed into a warm pocket ; a situation certainly favourable for speedily producing putrefaction in it. In this state (not unfrequently after it had been taken several days from the pustules) it was inserted into the arms of his patients and brought on inflammation of the incised parts, swellings of the axillary glands, fever, and sometimes emptions. But what was this disease? Certainly not the Smallpox: *for the matter having from putrefaction lost, or suffered a derangement in its specific properties, was no longer capable of producing that malady, those who had been inoculated in this manner being as much subject to the contagion of the Smallpox, as if they had never been under the influence of this artificial disease : and MANY UNFORTUNATELY FELL VICTIMS TO IT, WHO THOUGHT THEMSELVES IN PERFECT SECURITY.”—(*in loc. p 28*).

“Certain then it is that variolous matter may undergo such a change from the putrefactive process, as well as from some of the more obscure and latent processes of nature as will render it incapable of giving the Smallpox in such a manner as to secure the human constitution from future infection After this ought we to be in the smallest degree surprised to find, among a great number of individuals who, by living in dairies, have been casually exposed to the Cowpox virus when in a state analagous to that of the Smallpox above described, some who may have had the disease so imperfectly as not to render them secure from variolous attacks?”—(*Jenner's further observations. see H. & P.V. Vol. II, p 165.*)

“I am fearful that before we thoroughly understand what is Cowpox matter, and what is not, some confusion may arise, for which I shall unjustly be made answerable. In the first place instances will occur where those who have truly had the disease shall be subjected to the common process of inoculation, inflammation, vesication, and even pus will appear on the wounded part. The axilla will show that the lymphatics have been active, and the system may even in a very limited degree, feel the consequence. What would the enemies to the improvement of science say to this? I leave you to answer this question. But the very same thing has happened again and again to those who have had the Smallpox: and do not those (nurses for example) who are much exposed to the contagion of Smallpox.”—(*The rest of this letter is unfortunately lost*).—(*Letter from Jenner to —? —from Cheltenham, Sept. 19th, see Prof. Crookshank's Hist. and Path. Vaccn. Vol. I, p 142*).

“Vaccine inoculation has certainly unveiled many of the mysterious facts attendant upon the Smallpox and its inoculation. How often have we seen (apparently) the full effect on the arm from the insertion of variolous matter, indisposition and even eruptions following it, and its termination in an extensive and deep cicatrix; and yet on exposure, the person who underwent this, has caught the Smallpox.”—(*Letter to Dr. Evans—see Profr. Crookshanks, Hist. and Path. Vaccn. Vol. I, p 170*).

“Writing to Moore in 1812, Jenner accused Pearson of “spreading the Smallpox through the land and calling it the Cowpox.”—*Baron II p 383 also R.C. V—Minority Report par 54*).

Jenner's Professional Neighbours.

“ We have all heard ” (they would observe) “ of what you mention, and we have even seen examples which certainly do give some sort of countenance to the notion to which you allude, but we have also known cases of a perfectly different nature,—many who were reported to have had the Cowpox having subsequently caught the Smallpox. The supposed prophylactic powers probably, therefore, depend upon some peculiarity in the constitution of the individual who has escaped the Smallpox, and not on any efficacy of that disorder which they may have received from the cow. In short, the evidence is altogether so inconclusive and unsatisfactory that we put no value on it; and cannot think that it will lead to anything but uncertainty and disappointment.”—
(Baron's life of Edward Jenner, Vol. I, p 125—see Prof. Crookshank's H. & P. V. Vol. I, p 105, H. K. Lewis.)

Dr. INGENHOUSZ :—

“ Having read with attention your performance on the Variolœ Vaccinœ, and being informed by everyone who knows you that you enjoy a high and well deserved reputation as a man of great learning in your profession, you cannot take it amiss if I take the liberty to communicate to you a fact well deserving your attention, and with which you ought to be made acquainted

“ As soon as I arrived at the seat of the Marquess of Lansdowne I thought it my duty to inquire concerning the extraordinary doctrine contained in your publication, as I knew the Cowpox was well known in this country. The first gentleman to whom I addressed myself

was Mr. Alsop an eminent practitioner at Colne. This gentleman made me acquainted with Mr. Henry Stiles, a respectable farmer at Whitley, near Colne, who, thirty years ago, bought a cow at a fair, which he found to be affected with what he called the Cowpox. This cow soon infected the whole dairy ; and he himself by milking the infected cow, caught the disease which you describe, and that in a very severe way, accompanied with pain, stiffness, and swelling in the axillary glands. Being recovered from the disease, and all the sores dried, he was inoculated for the Smallpox by Mr. Alsop. The disease took place ; a great many small pocks came out, and he communicated the infection to his father, who died of it. This being an incontrovertible fact, of which I obtained the knowledge from the first man to whom I addressed myself, cannot fail to make some impression on your mind, and excite you to inquire farther on the subject, before you venture finally to decide in favour of a doctrine, which may do great mischief should it prove erroneous.”—(*Letter to Jenner, Oct. 12th, 1798*—see *Crookshank's Hist. and Path. Vaccn.*—*H. K. Lewis*).

DR. GEORGE PEARSON, M.D., F.R.S. :—

“The mortality by the Smallpox, has been in a greater proportion since than before the introduction of inoculation.”—(*H. & P. V. Vol. II, p 73*).

“It has been concluded by Dr. Jenner that the aboriginal matter is from the matter of the grease of horses, which gains admission through the milkers who handle such greased horses : but this conclusion has no better support than the coincidence in some instances of the prevalence of the two diseases in the same farm.”

I have found that in many farms the Cowpox breaks out although no new comer has been introduced into the herd ; although the milkers do not come in contact with horses ; although there are no greased horses ; and even although there are no horses kept on the farm.”—(*in loc p 75*).

“The Cowpox poison is, according to the present facts, totally different in its nature and effects from every other morbid poison, both of cattle and human creatures.”

“On account of the notion which, by some, is entertained, that the Cowpox infection is of the same nature as the variolous, it may be useful to point out the great differences between them.”—(*in loc p 79*).

“It is asserted that a person may have the Cowpox who has had the Smallpox.”—(*in loc, p 80*).

Dr. WM. WOODVILLE, M.D., PHY. TO THE S.P. & INOC. HOSP. :—

“Numerous experiments were accordingly made upon different cows, with the matter of grease, taken in the various stages of that disease, but without producing the desired effect. My friend Mr. Coleman, the ingenious professor at the Veterinary College likewise made similar trials, which proved equally unsuccessful. Neither were inoculations with this matter, nor with several other morbid secretions in the horses, productive of any effects upon the human subject I have also other reasons for believing that the Cowpox does not originate from any disease of the horse.”—(*H. & P. V. Vol. II, p 97*).

“Those who are acquainted with the history of the Cowpox will, no doubt, be surprised to find

from the preceding cases that pustules have frequently been the consequence of the inoculation of this disease.”—(*H & P. V. Vol. II, p 148*).

“It must be acknowledged, that, in several instances the Cowpox has proved a very severe disease.”—(*in loc p 152*).

DR. RAMSAY :—

“Though our confidence, no doubt, is limited, yet it (vaccination) does appear to us of great value, and to possess many advantages over variolous inoculation. We are inclined to think that much depends on effecting the vaccine disease in its most perfect form, and preserving the pustul entire, which hitherto has not been the case. It must indeed, be admitted that facts do not bear us out fairly in the conclusion that vaccination has resisted the attack of this eruptive disease in proportion to the perfection of its character. On the contrary several of the most distinctly marked cases of Smallpox have occurred in those who have been vaccinated apparently in the most satisfactory manner, and where the cellulated marks on both arms are still as perfect as possible. In most cases, however, the pustules had not been preserved entire, but in several they were so: and in those no circumstance whatever could be found, on the strictist examination to invalidate the evidence of Smallpox in its perfect form having succeeded to vaccination in its perfect form.”—(*Letter to Dr. Monro, 27th June, 1818—see Dr. Crookshank's Hist. and Path. of Vaccn. Vol. I, p 436*).

MR. ESTLIN :—

“Allow me, in the first place, to premise that, having been engaged in vaccinating (at one time

rather extensively) for thirty years, I have watched, with regret, a decided decline in the activity of the virus ; and for many years, I have been endeavouring in vain to renew the lymph from its original source. On the diminished anti-variolous power of the present stock of vaccine matter I need make no remark : the public are too painfully aware of the fact.”—(*Letter to the Medical Gazette in 1837*—see *Hist. and Path. Vaccn. Vol. I, p 449*).

DR. ROBERT CEELY, SURGEON TO THE BUCKINGHAMSHIRE INFIRMARY :—

“Ardently admiring the genius and philanthropy of Jenner and entertaining a corresponding estimate of the value of the discovery which has rendered his name illustrious, and constituted him one of the greatest benefactors of the human race, I nevertheless could not divest myself of sundry doubts on certain points of extreme interest and very great importance connected with the natural history of the vaccine, and the theory and practice of vaccination. These doubts were not of easy solution. They required for this purpose not only time, but a concurrence of circumstances which I could scarcely hope to witness I sought to avail myself of those opportunities which the occasional occurrence of the natural and casual variolæ vaccinæ, and the existence of an ample field for vaccination, seemed capable of affording. The events which have occurred, and the discussions which have arisen during that period, have greatly enhanced the interest, and materially augmented the necessity of such an inquiry The facts and arguments adduced and urged by the learned and able biographer of Jenner constrained me to per-

sist in a course of experiments which my own observations had already taught me were difficult and troublesome of execution, and precarious in result. Biassed by no theory, but impelled by an earnest and anxious desire to discover truth, these observations and experiments were made and conducted amidst the fatigues and demands of active rural practice

“Although the casual Cowpox in man is mostly found on those who have not previously gone through variola or vaccine, it is by no means rare to meet with it on persons who have passed through the latter, and a few who have had the former disease. It is no novelty to see individuals who have taken the casual disease more than once, at various intervals but not severely: and now we often see cases after vaccination

“Such inclusive results could not be otherwise than unsatisfactory. This, to me, at least, did not appear to be a land of promise, but a *terra incognita*, enveloped in clouds and abounding in mists, and where retreat was as difficult as advance was discouraging.”—(*Observations on the Variolæ Vaccinæ. see Crookshank's H. & P.V. Vol. II, pp 365-423*).

SIR JOHN SIMON, K.C.B., F.R.S., &c., &c. :—

“Perhaps at no previous moment of English History had the horror of Smallpox been greater or more fully justified than at the beginning of the last Century”—(18th)—“And now for the first time there came to us a story that we could, so to speak, make terms with this loathsome and murderous enemy: that, by receiving it of our own accord, we could disarm it; that we could (as it was expressed) “buy the Smallpox cheap”; that the susceptibility to contract its fatal infection could be exhausted by artificial means, giving

indeed the disease, but giving it so mildly, that life was almost unendangered in the process. This indeed was substantially the fact; and to the present time it remains one of the most interesting and least explained facts in pathology."

"From this time"—(A.D. 1722)—the inoculation of Smallpox possessed a recognised though not an uncontested place in medical practice. Not uncontested for innumerable absurd objections were raised, which much interfered with its general adoption. It was said to be wicked and irreligious, and to savour strongly of magic, to promote vice and immorality, and to be an inspiration of the devil. It was said to instil a vicious humour without establishing an issue for its discharge; still worse, to be the means of introducing syphilitic and other infections into the body, and of exciting scrofula and consumption. Inoculating surgeons (it was urged) out to be cut off, as prisoners, from the professional community. Besides all this nonsense, there were objections, exaggerated but not unfounded, against a practice which sometimes occasioned death to the subject of the operation. It could not be denied that the worst possible forms of Smallpox did sometimes, though rarely, ensue on this proceeding." *R.C.V., 1st. Report. Appendix I., p. 65.*
—*From papers prepared in 1857.*

"Putting aside for the moment all question of the strong and stupid prejudices against inoculation, putting aside, further, the reasonable fears entertained of an expedient under which two, or three, or four, or five, or ten in every 1000 subjects were sure to die; and starting with an imaginary population neither prejudiced, nor apathetic, nor timorous, the inoculators themselves demurred against universal inoculation.

“There were conditions of age and conditions of health, under which, even by them, it was thought unsafe to operate. Thus, even assuming an unanimous willingness of the world to adopt inoculation, there must inevitably remain against it this two-fold objection: (1) that it would destroy a certain, though small, proportion of those submitted to its performance; and (2) that to the very considerable number of persons, temporarily or permanently ineligible for the operation, it would occasion a greatly increased danger of contracting the natural disease.

“And in practice (as may be inferred from Dr. Heberden’s remarks) this objection was more fatal than in theory. 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 Smallpox, looking back from this point of view on the labours which during 12 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, according to such records as we possess, it appears that, in spite of all medical exertion, the mortality of Smallpox has progressively augmented

“That this despair was not lasting is due to the genius of an English surgeon; and the close of the 18th century, which had much to darken it, will be remembered till the end of human history for the greatest physical good ever yet given by science to the world.” (*R.C.V., 1st Report, Appendix I., p.p.66 and 67.—From papers prepared in 1857.*)

“These researches are mentioned out of their

chronological order, because they set in so very clear a light the meaning of Jenner's practice. A host of theoretical objections to vaccination might have been met, or indeed anticipated, if it could have been affirmed 60 years ago as it can be affirmed now :—"This new process of preventing Smallpox is really only carrying people through Smallpox in a modified form. The vaccinated are safe against Smallpox, because they in fact have had it. Their safety is of the same sort as if they had been inoculated under the old process, or had been infected by the natural disease. The trifling disorder which they suffer—these few tender vesicles on the arm—this slight feverishness that they show—is Smallpox of the most mitigated kind." (*In loc.*, p. 67.)

A PORTION OF HIS ANSWERS WHEN BEFORE THE ROYAL COMMISSION ON VACCINATION, JUNE 26TH AND JULY 3RD, 1889.

Q. 122—(*Mr. Picton*)—You stated that you could speak with more knowledge now as to any evil or injurious effects arising from vaccination ; in which direction would your increased knowledge modify your former opinion, that is to say, whether you saw more or less injurious effects from it? Ans.—“I should prefer not to answer that question in a word. I am quite prepared to go into the subject if his Lordship would wish to open it now, but I think I had better not answer it in a word. I could not in a word do justice to it.”

Q. 140—I understand you to say, with regard to re-vaccination, that in your view the best established opinion is that re-vaccination is necessary at or about the time of puberty? Ans.—“Yes.”

Q. 141—But you quoted the opinion of Dr. Buchanan that the re-vaccination should take place about the age of 10 years? Ans.—“If in the presence of Smallpox.”

Q. 149—Is it not the custom of medical men to recommend a third or fourth vaccination in cases of epidemics? Ans.—“I will not say that there are no medical men who would make that recommendation, but I should not say that it is general: I am sure it is not the advice of the best authorities.”

Q. 153—You stated that in the majority of cases there was a relapse into a state of susceptibility to the disease? Ans.—“Yes.”

Q. 154—Then to that extent the virtue of infant vaccination is lost? Ans.—“To that extent; it being always understood, please, that I did not mean a relapse *in toto*, but a partial relapse into susceptibility.”

Q. 155—To that extent, of course, the virtue of early vaccination is gone? Ans.—“To that extent.”

Q. 152—Then would you advocate compulsory re-vaccination? Ans.—“That is another matter.”

Q. 167—(*Dr. Collins*). You have been asked as to Jenner's views, would you kindly give us your own views as to the nature of vaccination? Ans.—“I myself, as far as my study of the subject goes, believe that Jenner was right in the name he gave to the disease, when he called it *Variolæ Vaccinæ*. As far as my knowledge goes, I believe it is really Smallpox grafted upon the cow.”

Q. 168—Has any experience of recent years occurred to demonstrate that? Ans.—Yes, in my opinion there has. I, in that matter attach very great importance to Mr. Ceely's observations. I am aware that, in contradiction to them, a great

deal of curious experimental evidence has been adduced from Lyons; and I have noticed also with great astonishment and curiosity the results of some experiments which were made for the Local Government Board by Dr. Klein. I of course have seen that there is difficulty in the subject. . . . I do not pretend to explain it, but as you ask me for my opinion, *quantum valeat*, I say that I think Jenner's interpretation of the case was right.

Q. 169—The experiments of Dr. Klein were purely negative in their results? Ans.—“Yes.”

Q. 170—He failed in numerous instances to produce any results on the cows by inoculation with Smallpox? Ans.—“Yes.”

Q. 173—May I take it that your impression of the nature of vaccination is that it is the Smallpox of the cow? Ans.—“Yes, quite so.”

Q. 174—I see that in your paper of 1857 you make this remark—“On the conclusion of this artificial disorder, neither renewed vaccination, nor inoculation with Smallpox, nor the closest contact and cohabitation with Smallpox patients will occasion him to betray any remnant of susceptibility to infection”—Do you adhere to that? Ans.—“As far as I understand the point, I adhere to the principle of the statement, but should not now express myself in such unqualified terms as to a possible “remnant of susceptibility.” Your quotation, I observe is from my report of 1857. If I were now writing the passage, I should probably not go further than to express my belief that the person might without fear expose himself to any risk of infection.

Q. 175—Do I understand that a person who has once had the Cowpox shows no susceptibility to renewed vaccination? Ans.—“My meaning was

only as to the immediate time. I have no fresh knowledge what immediate re-vaccination would do, nor as to immediate inoculation with Smallpox."

Q. 178—Is it or is it not a fact that the majority of re-vaccinations are successful? Ans.—“I was not there speaking of immunity extending through life. I discuss that later on in the paper. I was speaking of the particular moment when the “artificial disorder” was concluded.

Q. 179—Can you tell the Commission how soon after the primary vaccination it is possible to re-vaccinate successfully? Ans.—“I do not know.”

Q. 180—Is it or is it not a fact that the majority of re-vaccinations are successful in the case of recruits entering the army, for instance? Ans.—“I believe it is.”

Q. 181—Something like 90 per cent of the cases, I think, are successful? Ans.—“Yes, I assume so.”

Q. 183—Do I understand you regard vaccination as equivalent to an attack of Smallpox as regards subsequent susceptibility? Ans.—“I think I should venture in that context to say “analogous” rather than “equivalent.”

Q. 184—But I think you said on an earlier page of this 1857 paper that a person once vaccinated is protected from Smallpox, because he has in fact had it? Ans.—“It is quite true that 32 years ago that was my language.”

Q. 185—Is that one of the points which you desire to modify now? Ans.—“It was figurative language.”

Q. 186—Not pathologically precise? Ans.—“It was not meant to be pathologically precise. What the person had was not literally Smallpox

but (if the explanation I have given be right) was modified Smallpox, vaccine-smallpox, variolæ vaccinæ. In 32 years one learns to express oneself more precisely in pathology."

Q. 187—Mr. Picton asked you with regard to the views which Jenner entertained as to Cowpox, and I will ask you whether or no this is a correct passage from his inquiry. He is speaking of Horse Grease. He says "It is an inflammation and swelling in the heel, from which issues a limpid fluid possessing properties of a very peculiar kind, which seems capable of generating disease in the human body, after it has undergone the modification I shall presently speak of, which bears so strong a resemblance to the Smallpox that I think it highly probable it may be the source of that disease," is that correct? Ans.—If you read it as his I take it as his. "I have no reason to suppose it otherwise than correct."

Q. 188—Do you suppose it to be pathologically correct? Ans.—"That is another point."

Q. 189—Apparently Jenner held that horse grease was both the source of Cowpox and of Smallpox? Ans.—"That it was itself equine Smallpox, and was the source, or one of the sources of Cowpox. I suppose we may take it for granted that the horse was capable of a good many maladies about its heels. Jenner took a pretty long while, and also his successors have been giving a great deal of time to the discrimination of the disease in cows, and probably in horses the subject was not less difficult."

Q. 190—You speak of "discrimination" of the disease in cows. Do I understand that there are a variety of eruptions of the teats of cows? Ans.—"Undoubtedly."

Q. 195—Is it not a fact that lymph has been used

from the Cowpox derived from horse-grease inoculated upon a cow; was not that Jenner's Source?

Ans.—“Within my experience, lymph has not been derived from the horse.”

Q. 196—Have you any reason to doubt that observation of Jenner's? Ans.—“I know that he believed the grease of horses to be of the same contagion with Cowpox, and that to some extent in part of his career he inoculated with human lymph which had descended from equine infection: but I have never attached any particular importance to that portion of his practice, and I have not much recollection of particulars relating to it.”

Q. 197—I thought that you commended his work as a master-piece of medical induction. I take it that you are familiar with its chief points? Ans.—“I am not now familiar with the details of his cases. I have not looked at his book for many years.”

Q. 200—At any rate, there are three sources from which lymph has been derived at various times?

Ans.—“And there have been derivations of lymph from variolated cows.”

Q. 201—I mentioned that in the first instance. Are these all precisely the same disease? Ans.—“They are believed to be. I do not wish to include the horses heel, because although I have not the least doubt that the horse's heel has had Cowpox, I do not know the effect of inoculations from the horse sufficiently to speak of them: but I have not the least doubt that Cowpox has been in the horse's heel occasionally: and assuming the case to have been correctly diagnosed, I can quite conceive that this would give as good vaccination as any other lymph.”

Q. 202—Are you aware that Jenner considered so called spontaneous Cowpox to be spurious and

worthless as a protection? Ans.—“ He probably had not exhausted the subject of the eruption on the teats of cows. Quite lately, in a controversy which has arisen about cows and scarlet fever, it has been made quite evident that cows are subject to very various eruptions upon their udders. I am not at all prepared to say that Jenner had exhausted that subject. I think it very probable that he had not. But when I look at the question of vaccination, I look at it independently of the question of origins; that is to say, remote origins. I look at current vaccinations, such vaccination as you will find at any well conducted vaccination station in England.”

Q. 203—I believe a calf lymph establishment has been opened by the Government, has it not, in recent years? Ans.—“ There is a calf lymph establishment.”

Q. 204—Can you tell me the origin of that lymph? Ans.—“ I cannot, that has been since my time.”

Q. 211—Do you consider that inoculation was in any way responsible for the heavy mortality at the end of the 18th century? Ans.—“ Undoubtedly.”

Q. 212—Did vaccination to a large extent replace inoculation? Ans.—“ Yes, certainly.”

Q. 213—Was Dr. Farr an authority upon statistical questions in this country? Ans.—“ A very high authority upon statistics.”

Q. 214—Would you agree with this quotation from Dr. Farr: “ Smallpox attained its maximum after inoculation was introduced: this disease began to grow less fatal before vaccination was discovered, indicating together with the diminution in fever a general improvement in health then taking place.”? Ans.—“ I should not agree with the whole of that. I am not aware of any

material to justify the opinion that Smallpox was growing less fatal before vaccination was discovered."

Q. 247—All I want to know is whether you consider that from 1867 there dated a distinct improvement as regards the general vaccination of the country? Ans.—“Yes, distinctly.”

Q. 251—They are the periods 1847-53, 1854-71, and 1872-80? Ans.—“Yes.”

Q. 253—It would have made a considerable difference in the figures, would it not, if the last period had dated from 1867 instead of from 1872, because the latter period would then include the big epidemic of 1871? May I ask whether you have before you the explanation which the Registrar General gives of his classification? Ans.—“I cannot give it, but I know that Dr. Ogle is here, and he will account, I am sure, for the division that is adopted.”

Q. 261—Would you be prepared to agree with Dr. Farr (who you admit is a high authority) in this quotation as to the causes of death in the year 1867: “It is of course by no means proved that the general mortality under unfavourable sanitary conditions is much reduced by rendering the child insusceptible of one type, while he remains susceptible to all other types of zymotic disease.”?

Ans.—“That is a speculative opinion that we have not material for testing. I think he very prudently and properly begins by saying, “There is no reason why we should assume.” I may agree with him that there is no reason why we should assume either one way or the other. It is very dangerous, to attempt *a priori* arguments in matters of this kind. I regret to say that when I look back to things that I have written in olden

times I catch myself having done it, and therefore you must not look upon me as presuming to censure others : I criticise myself quite equally. Thirty or forty years ago, one was much more disposed to think that one could discuss these questions *a priori*. They are questions of experiment : it is in proportion as one gets more experience that one becomes better able to speak about them."

Q. 262—In the report with which I am dealing Dr. Farr gives ample *a posteriori* evidence ; but I take it that you are not familiar with the material ?
Ans.—“ I have not the fact before me.”

Q. 263—(*Mr. Bradlaugh*)—With reference to the division into periods in your answer to Question 86, I think I am right in assuming that you followed Table L, on p 22 of the 43rd Annual Report of the Registrar General for the division of periods. I do not know whether you are aware that on page 21, the Registrar General says that “ The second sub-period begins with 1854, when vaccination became obligatory, but without any effectual means of enforcing the obligation being instituted, and closes with 1871.” If it be true that from 1867 to 1871 parents have not only been liable to repeated convictions and penalties for not allowing their children to be vaccinated, but there was actual evidence before the Committee which reported in 1871 of the infliction in several cases of more than one fine or imprisonment with regard to the same child, would not that induce you to think that the sub-period which began with 1854 should have rather ended with 1867 ?
Ans.—“ I should not see any objection to a re-arrangement of the periods.”

Q. 265—I am afraid I did not make myself at all clear but what I was suggesting was whether

whoever prepared the Registrar General's Report had not omitted to consider the operation of the Act of 1867 when he used the words, "without any effectual means of enforcing the obligation being instituted." ? Ans.—"Quite so."

Q. 266.—You would rather agree with me in that? Ans.—"Quite so, to the extent in which the Act of 1867 had added to the strictness of enforcement."—(*R.C.V. First Report. pp 1—11*).

SIR JOHN SIMON, M.D., F.R.S :—

"In the permanent avoidance of epidemic disease, cleanliness is the sole safe guard."—(*City of London Health Reports, Vol. 1, p 133*).

"No city so far as science may be trusted can deserve immunity from epidemic disease except by making absolute cleanliness the first law of its existence."—(*ibid p 142*).

DR. SEATON :—

"No fact is more conclusively established than the utter worthlessness of vaccination for saving sheep from Smallpox."—(*Handbook of Vaccination p 42—see Roy. Com. Min. Rep. par 175*).

"One important practical fact is that a vaccination presenting any deviation from the perfect character of the vesicle and the regular development of the areola is not to be relied on as a protective against Smallpox."—(*Diseases of Children (Ellis) p 157*).

"In times of epidemic the best vaccinated persons become liable to Smallpox."—(*Quain's Dictionary of Medicine—see the Vaccn. Act of 1868 by Mrs. Fawcett, p 26*).

DR. EPPS, M.D., (for 25 years superintendent of the Jenner Institution, London.) He vaccinated

120,000 men and declares himself on principle against all compulsion :—

“ The Smallpox matter is neither an antidote, a means of improvement, nor a palliative against human Smallpox, but is a means which only paralyses the expansive power of a good physique. Nobody has a right to introduce a pernicious poison forcibly into the life of a child.”—*Impfspiegel 1890, p 27*).

DR. RENNIE :—

“ At Hong-Kong in 1854, while Smallpox was prevailing a lady, well known there, had herself vaccinated, but, in place of its taking in the ordinary manner, it produced an attack of the worst form of Smallpox, which proved fatal. Almost coincident with this, the same consequence took place in an infant ; and these two fatal occurrences made a strong impression on the minds of the Hong-Kong public against the practice of vaccination during the prevalence of Smallpox. From cases such as these which I may state are much more numerous than is supposed it would seem as if vaccine matter, in periods when the atmosphere has assumed an epidemic constitution, favouring suppurative disease, acts as a true germinating influence when introduced into systems, at the time affected with what may be called the Smallpox habit of body.” (*Peking and the Pekingese, pub. 1865—see Have you been vaccinated (Collins) p 31, H. K. Lewis*).

DR. MUNK :—

“ Smallpox is becoming in each year a more severe and fatal disease. If you take the epidemics of the present century, each successive epidemic has become more severe and the mortality

far greater.”—(Q. 4664, R. C. V. 1881, *Vaccination Vindicated*, p 42. Cassell).

DR. CHARTERIS, ASSIST. SURGEON AT ST. GILES' INFIRMARY :—

“ During the last three weeks there has been in the parish of St. Giles, an outbreak of Smallpox, which evidently threatens to assume an epidemic form. It appears to attack indiscriminately those vaccinated and those unvaccinated, the disease in those protected being generally very mild, while in those who are not, this is by no means the case. The history of the eight fatal cases I have had, present, I think, peculiar points of interest. In all these vaccination was performed. The children seemed healthy on the day of vaccination, but on the subsequent day the Smallpox eruption appeared, the disease proceeding *pari passu* with the maturation of the Smallpox vesicle. On the ninth day of the disease, with one exception, all died I now hesitate to perform vaccination when there is the slightest chance of the child having been exposed to the contagion of Smallpox : and in seven cases where I have thus refrained, and allowed the disease to proceed in its usual course, the termination has not been fatal The case besides being interesting *per se*, shows how very cautious medical men and public vaccinators should be in taking vaccine matter from any child when the Smallpox is rife. I have no doubt that had I vaccinated the twenty children, I previously mentioned, from this child's arm every one of them would have taken Smallpox, and most probably all would have died.”—(*Lancet*, July 28th, 1866—see *Have you been vaccn.* p 32, Lewis.)

DR. W. H PEARSE, SENIOR PHYSICIAN, PLYMOUTH PUBLIC DISPENSARY :—

From his pamphlet "Instances of Immunity" the following excerpts are taken. It seems that he was surgeon-superintendent of the Government emigrant ship "Tarquin," which made the voyage from Plymouth to Adelaide between August 20th and December 3rd, 1864. No emigrant was allowed to embark without either marks of Smallpox or good vaccine marks. But the day after sailing a well marked case of Smallpox appeared, which ran a severe and complete course. Dr. Pearse did 300 re-vaccinations at sea, of these 136 were successful. As no other cases of Smallpox occurred, most doctors would have given the credit of this to previous vaccination and to re-vaccination. Dr. Pearse however says :—

"It is obvious that the immunity of the people was not due to my re-vaccinations, as these were gradually done, week after week, even up to the fourteenth week. Nor can I assert that the immunity was due to this community of emigrants having, in general, at embarkation, good marks of early life vaccination, because out of 274 emigrants on board, of whom 56 were under 12 years of age, I obtained 136 successful arms ; the vaccine prophylaxis was thus in general, greatly expired. The fact remains that this crowded community, whilst susceptible to vaccine lymph, was immune to Smallpox contagion or infection. Were my people in one of their periodical cycles of natural immunity, which, more or less, are common to the infective fevers, or was there some subtle stability of their bioplasmic molecular bonds produced by the unknown but vast changes of environment involved in being launched from their habituated conditions and co-relations to the

sea climates?

“ May I say that, though I have but one very distinct vaccine mark, I seem to be immune both to vaccine lymph and Smallpox? On board the ‘Tarquin,’ I often re-vaccinated myself as an example and persuader to the people, but my arm never “took.” In 1872 I was in charge of the Vauxhall Street Smallpox Hospital, Plymouth, I admitted ninety-five cases, of which twenty died; the type was severe; sixteen cases were of hæmorrhagic and purpuric type. Of the total 95 admissions, 33 had never been vaccinated, three were doubtful, 59 were vaccinated. Of the eight fatal hæmorrhagic cases, six were vaccinated, one not, and one doubtful; one of the fatal purpuric cases had five good vaccine marks. As this was an emergency hospital, I had to spend some hours daily in presence of Smallpox; my old immunity remained.”—(*Instances of Immunity. Bailliere Tindall & Cox—see also Vaccn. Inqu. August, 1904, p 99*).

DR. HENRY MAY :—

“ In certificates given by us voluntarily, and to which the public have access, it is scarcely to be expected that a medical man will give opinions which may tell against or reflect upon himself in any way, or which are likely to cause annoyance or injury to the survivors. In such cases he will most likely tell the truth, but not the whole truth, and assign some prominent symptom of the disease as the cause of death.

“ As instances of cases which may tell against the medical man himself, I will mention erysipelas from vaccination and puerperal fever. A death from the first cause occurred not long ago in my practice, and although I had not vaccinated the

child, yet in my desire to preserve vaccination from reproach, I omitted all mention of it from my certificate of death."—*Birm. Med. Rev. January, 1874, Vol. III, p 34-35*).

DR. REGINALD FARRAR :—

“ E.C. was one of a family of delicate though not specifically diseased children, the mother being a feeble woman who has had a large family very rapidly. I have no reason to suspect either syphilis or tubercle in the parents, nor do any of the children bear marks of constitutional syphilis. This child was brought to me on October 10th, 1893 for vaccination. She struck me as being rather small and thin for her age—5 months—but otherwise had nothing obviously amiss. I did not therefore at the time see sufficient cause to postpone the vaccination, though in view of the poor development of the child I should have done so had the mother desired it. I vaccinated in four places, using a carefully cleaned lancet, and Dr. Renner's calf-lymph. Other children vaccinated at the same time, and from the same supply of lymph, did perfectly well in all respects. On inspecting the arm a week later I found three vesicles of perfectly normal aspect : neither at this, nor at any subsequent date was there any inflammatory area around the vesicles ; nor did the ulceration at any time spread beyond their limits. Instead, however, of the scabs drying up and separating in the usual time they persisted unduly, and from the intermixture of clotted blood, presented a “ limpet shell ” aspect, resembling rupial scabs. When at last they separated the ulceration was found to have penetrated the whole skin, exposing the muscles beneath, and leaving holes which looked as if they had been punched out. There was no

œdema of the arm, and the skin round the vesicle appeared perfectly healthy throughout. The child dwindled, peaked and pined, and finally died, from no very obvious cause on November 29th, 1893, six months old, seven weeks after the vaccination, and about a week after the separation of the scabs. I consider her death to have been due to a constitutional *malaise*, induced by vaccinia in a poorly-nourished child; for vaccinia is after all, a specific constitutional fever, though most children take it very mildly; and I publish the case, partly as a warning to vaccinators to avoid weakly children even though presenting no obvious disease, for I cannot but think that I should have acted more wisely in postponing the vaccination in this instance, and partly because I hold it to be our duty to place on record any untoward effects of vaccination (and they are fortunately extremely rare, considering the universal prevalence of the custom) even at the risk of causing the enemy to blaspheme."—*British Medical Journal*, 13th October, 1894.—see also *Vaccn. Inq.*, August, 1903, p 99).

SIR JAMES PAGET, SURGEON EXTRAORDINARY TO HER LATE MAJESTY QUEEN VICTORIA :—

“The progress of the vaccine, or variolous infection of the blood shows us that a permanent morbid condition of that fluid is established by the action of these specific poisons on it. And that although this condition may, so far at least as it protects the individual from any further attack of the same disease, be regarded as exercising a beneficial influence upon the economy, yet it is not the less to be looked upon as a morbid state.”—(*Lect. on Surgical Pathology*, pp 39-40—see also *Vaccn. Inq.*, Feb., 1902, p 207 and Dec., 1903, p 181).

DR. F. BOURNEMAN JESSETT, F.R.C.S. :—

“No surgeon doubts that the development of malignant disease is nearly always due to local irritation of the part affected ; but to prove that the local irritation is the actual cause of the malignant growth, I submit that the same irritation existing in another individual of similar age, etc., should produce the same result in the majority, if not all, cases. This we know is not the fact. What explanation can we give, then, to account for the disease developing in one case and not in the other? I contend that there can be but one reasonable explanation, and that is in the one case the soil is adapted to the growth of the cancer—i.e., that there is the same morbid condition of the blood which renders the individual liable to the disease ; while in the other case there is no such condition of the blood.”—(*British Medical Journal*, 10th Dec., 1887, p 190—see also *Vaccn. Inq.* 21st Dec., 1903, p 181).

DR. SHORTHOUSE :—

“Some crazy enthusiasts recommend that lymph be taken direct from the cow. They cannot surely have seen those frightful pictures of the disease so produced which were published by Mr. Ceely of Aylesbury, some thirty years ago. Mr. Ceely is the highest authority in the world on this subject, and carried out numerous experiments at the instance of the Provincial Medical Association. These experiments were carefully and minutely observed, and their results faithfully and graphically recorded in two volumes. Those observations and experiments are illustrated by a great number of beautifully executed plates, drawn from life. Some of the pictures are very vivid, whilst others are something frightful. There is

one which gives the picture of the back of the hand and arm of a youth who got inoculated accidentally whilst milking a cow. There is another which depicts a corroding ulcer on the thumb of a man who got inoculated in the same manner. If those enthusiasts inspected the pictures, I think they would be induced to pause before they advocated the practice of inoculation direct from the cow."—(*Letter to Croydon Chronicle January 6th, 1877*—see *What about Vaccination, p 137*).

DR. J. H. BRIDGES, F.R.C.P., LATE MED. INSP. L.G.B. :—

"I regard the compulsory Acts of 1853, 1867 and 1871 as an undue and inexpedient intervention of the State, in a matter which should be left to each family to decide for itself. Non-vaccinated people are not a source of injury to their neighbours."—(*Positivist Review. Nov. 1896 and V.I. Nov. 1896, p 130*).

DR. WILLIAM FARR, M.D., F.R.S., D.C.L., C.B., COMPILER OF STATISTICS TO THE REGISTRAR GENERAL :—

"Smallpox attained its maximum mortality after inoculation was introduced."—(*McCulloch's Statistical account of the British Empire, 2nd Edition, Vol. 2, p 379*).

DR. DAVIDSON, MEDICAL OFFICER OF HEALTH FOR CONGLETON, 1893 :—

"In the investigation of a single vaccination period, the fact was revealed that in quite 50 per cent in all vaccinated (about 70) the results were abnormal, and in a large number of these very grave injuries had been inflicted. That the results

of the practice are the same elsewhere as in Congleton, I have no reason to doubt, for judging from what I have seen of his method of vaccinating, our Public Vaccinator is as careful as it seems possible for a public vaccinator to be.”— (*Annual Report, 1893—see Vaccination a delusion, p 20. Swan Sonnenschein & Co.*).

DR. ROBERT CORY, M.A., M.D. CANTAB., F.R.C.P. LOND., PHY. IN CHARGE OF THE VACCIN. DEPT., ST. THOMAS' HOSPITAL. TEACHER OF VACCINATION IN THE UNIV. CAMBRIDGE. (Lecture IV):—

Eruptions that occasionally follow vaccination : When we first began vaccinating we made it a rule to inquire into the history of all children who had eruptions following vaccination, especially those on whom the rash presented any appearance of syphilis. We know very well what the ordinary course of acquired syphilis is it would be five to nine weeks from the inoculation of syphilis until we saw the secondary rash upon the body Now, eruptions which follow vaccination, even if of a syphilitic nature, nearly always appear about the tenth day after vaccination, and it follows, that if this appearance of a syphilitic rash on the tenth day is due to the inoculation of syphilis at the time of vaccination, the disease in such cases persistently follows a very unusual course. This unusual course is not to be noticed in the 26 cases or so which Mr. Hutchinson has published of syphilitic inoculation after vaccination, and in one case which we saw, the disease followed its usual course unmodified by vaccination. For instance it took 21 days from the vaccination to the first appearance of the chancre, and 36 days from the first appearance of the chancre to the appearance of the secondary

rash Hence we may fairly assume that when syphilis is inoculated at the time of vaccination it will follow its usual course. The explanation why the eruption appears so frequently on the 10th day of vaccination is, we think, because the child so affected is suffering already from hereditary syphilis, and the skin irritation occasioned by the vaccination simply determines the time of the appearance of the rash. Vaccination, there is no doubt is a cutaneous irritant, much less so, however, than Smallpox The rashes which follow vaccination, however, are not definite—in fact are as numerous in character as there are rashes to which children are liable: they are determined more by the nature of the child's organism in whom they occur than by the vaccinia. It is thus we explain the very various forms of eruption which are met with after vaccination: it may be a general erythema, or an eczema, or an urticaria, or a lichen, or may partake of the appearance of any other rash to which children are liable. Measles, Scarlet Fever, and Smallpox have each of them their own special character of rash, so that, from seeing them, it is possible to say to which of these diseases they are to be referred. With vaccinia this is impossible, the appearance of the rash, if it exists at all, being so indefinite."—(*Theory and Practice of Vaccination*, pp 63-64. *Bailliere Tindal & Cox*).

“There is one more most striking fact which receives an easy explanation from the above view, and would be otherwise quite incomprehensible without it. We allude to syphilitic eruptions following the use of calf lymph, and that in about the same proportion, as after the use of human lymph. It may be accepted without doubt that calf lymph which has never passed through the

human being since its origin is perfectly free from the syphilitic taint, and yet syphilitic eruptions follow its use. This fact alone should, in this particular of syphilitic infection, restore our confidence in the use of human lymph."

"Another eruption to which children are subject after vaccination is urticaria
 Another eruption which happens after vaccination is eczema, chiefly occurring about the head and face Lichen in its various forms may also follow vaccination we have once seen purpura follow vaccination, in the same way as purpura may be an early symptom of Smallpox Mr. Hutchinson, on December 9th, 1879 (Brit. Med. Journal, p 960, December 13th, 1879.) exhibited the body of a child (at the Medical Chirurgical Society) which had been vaccinated on November 11th. An eruption had come out by the eighth day, which the medical man under whose care it was, believed to be variola. Three days later the vesicles of the eruption were surrounded by large red areolæ, which became circular gangrenous patches. The skin where the eruption had been was, at the time the body was exhibited, as if it had had a hole punched out, so abrupt were the margins of the wounds. Another case of this complication after vaccination is published in the *Dublin Journal of Medical Science* for June, 1880, by Mr. William Stokes."

"The child in question was vaccinated on February 7th, 1880. On the morning of the 9th a number of purple and black spots appeared first on the buttocks, next on the face, and subsequently all over the body. The sloughs appeared as in Mr. Hutchinson's case, over the sites of the eruption. There were three well-marked vaccine

vesicles on the arm, which appeared healthy.

“ In Guy’s hospital museum there are two wax models of what is called varicella gangrenosa. These exactly resemble the gangrenous patches in Mr. Hutchinson’s case, and we think the same conditions of system were present in all those children who so suffered—two after vaccination, two after chicken-pox—and we are inclined to believe that disseminated tubercle was the real cause of them.”—(*Theory and Practice of Vaccination*, pp 67-68. Bailliere).

Lecture V. The practical details of Vaccination

“ It is always best to use perfectly fresh lymph, and to vaccinate directly from arm to arm or from calf to arm. (*Footnote* :—In saying this, gentlemen, I should tell you, however, that, although such has been the policy of the Local Government Board up to the present time, there is the probability that this policy before long will be altered when different instructions will have to be given).

[*Published in 1898*]

“ The lymph taken after the day week is seldom effective after a week’s storing. Lymph from a re-vaccination should in no case be used: nor should lymph from a much inflamed arm, or lymph that is thin or serous. Thick lymph, which at first oozes from the vesicle when it is pricked should be used. No child that is unhealthy or has any skin eruption should be used as a vaccinifer, and in all cases care should be taken to examine the buttocks of any child from whose arm the lymph is taken to vaccinate another. This last precaution is very necessary, for we are able to eliminate all cases of dangerous children.

“ Syphilitic children during the latent or incubatory period of the disease are not infective, but

become so immediately the symptoms declare themselves. It has been thought that if the lymph was used unmixed with blood then there was no chance of conveying syphilis but this is an error." (*Theory and Practice of Vaccination*, pp 69 70. *Bailliere Tindal & Cox*).

[*Note*:—With the object of demonstrating in his own person the improbability of syphilis ever being transmitted by vaccination, when proper precautions were taken in the operation, it is believed that Dr. Cory so vaccinated himself several times without apparent effect; eventually, however, he seems to have hastened his own death thereby.—(See MacVail's "Vaccination Vindicated" pp 132-133).

"There can be little doubt that Dr. Cory's death was indirectly brought about by his zeal in the best interest of vaccination."—(*Supplement to the 29th Annual Report of the Local Government Board*).]

DRS. BRISTOWE AND HUMPHRY, AND MR. HUTCHINSON :—

"It is conclusively proved by Dr. Cory's experiments that it is possible for syphilis to be communicated in vaccination from a vaccine vesicle on a syphilitic person notwithstanding that the operation be performed with the utmost care to avoid the admixture of blood."—(*Vaccn. Inquirer*, July, 1901, p 62).

DR. CHARLES CAMERON :—

"The recurrence, therefore, in the latest period of a mortality almost as high as that experienced prior to the Vaccination Act, shows that the protective virtues of vaccination are mythical, or that there is something radically wrong in our national system of vaccination."—(*Waterbury Anti Vaccn*).

DR. BRUDENELL CARTER :—

“ A large proportion of the cases of apparently inherited syphilis are in reality vaccinal ”

“ the syphilis in these cases does not show itself until the age of from 8 to 10 years by which time the relation between cause and effect is apt to be lost sight of.”—(*V. I. August, 1905, p 91*).

SYPHILLIS AND VACCINATION.

To the Editor of the “ DUMFRIES AND GALLOWAY STANDARD.”

Sir,—My attention has been called to a letter in your paper on the subject of vaccination, signed “ Ernst Gerschler,” the writer of which quotes what he says are my words, to the effect that, in my opinion, a large proportion of cases of apparently inherited syphilis are in reality vaccinal. No doubt I wrote something like this (I will not vouch for the precise words) thirty years or more ago. At that time the very possibility of the communication of syphilis in vaccination was not generally admitted : and, because it was not admitted, the precautions taken against such a disaster were sometimes insufficient. I was convinced, and did my best to convince others, that the danger was a real one, and ultimately my view was conclusively established. As soon as the possibility of such communication was recognized it ceased to occur, because proper precautions were taken ; and for the last twenty years I have not seen a case in which vaccinal syphilis could be even suspected. It has been abolished by ordinary care ; and, of course, it cannot be produced when calf lymph is employed. I may add that it is perfectly known to the anti-vaccinators who quote me that I am, and always have been, an unflinching advocate of

vaccination ; and that my only object in calling attention to a risk was that measures to guard against it might be universal, as they have now become. I should no more condemn vaccination, on account of an occasional accident, than I should condemn the use of horses because an unskilful rider once broke his leg.—I am, &c.,

R. BRUDENELL CARTER, F.R.C.S.

31 Harley Street, London,
Feb. 10th, 1898.

But Mr. Brudenell Carter's change of opinion does not of necessity make his former position a false one ;—or, if he would prefer to so word it, his satisfaction with the precautions he formerly wrote to inculcate does not make those precautions necessarily sufficient. That this is so could hardly be better shown than in the subjoined reply :—

SYPHILIS AND VACCINATION.

To the Editor of the "DUMFRIES AND GALLOWAY STANDARD."

Sir,—We anti-vaccinators have never sought to hide the fact that Mr. Brudenell Carter is "an unflinching advocate of vaccination." It is this fact which so enhances the value of his admission in the *Medical Examiner*—not "thirty years or more ago," as he erroneously states, but of May 24th, 1877—"that a large proportion of the cases of apparently inherited syphilis are in reality vaccinal, and that the syphilis in these cases does not show itself until the age of from eight to ten years, by which time the relation between cause and effect is apt to be lost sight of." In his letter

published in your columns of the 12th instant he states—"For the last twenty years I have not seen a case in which vaccinal syphilis could be even suspected." But it is less than twenty-one years ago that he made the above-quoted statement, prefacing it with the candid pronouncement that "syphilitic contamination by vaccine lymph is by no means an unusual occurrence." He now tells us that this risk "has been abolished by ordinary care." I appeal from Mr. Carter to Dr. Jonathan Hutchinson, the leading specialist in syphilis, and, like Mr. Carter, "an unflinching advocate of vaccination." Dr. Hutchinson, when speaking of this risk, in his *Archives of Surgery* for October, 1890, says: "It is a cruel injustice to imply that all accidents (vaccino-syphilizations) have been the result of carelessness."

In 1877 Mr. Brudenell Carter was an honourable exception in admitting the possibility of vaccinal syphilization; but now he is an exception the other way, when the risk is very generally conceded, and is recognised as so real and unavoidable as to warrant the Royal Commission in recommending a radical and costly change in our national system of vaccination. Is it that the Royal Commissioners are only pandering to popular prejudices, or that Mr. Brudenell Carter and other medical advocates of vaccination speak with a double tongue—one for the exclusively medical press, and the other for the lay journals?

Of course, vaccinal syphilis cannot "be produced when calf lymph is employed," says Mr. Carter. Again I refer him to Dr. Hutchinson's *Archives of Surgery*, where he will find records of numerous cases of alleged syphilis resulting from vaccinations with calf lymph. Dr. Hutchinson admits that the symptoms in these cases were so

like syphilis as to “deceive experienced surgeons,” but he denies that the diagnoses were correct. In reviewing the evidence submitted to him in these cases he states : “ The final supposition is that it is possible for vaccination, independently of any syphilis, whether implanted or hereditary to evoke symptoms which have hitherto been regarded as peculiar to the latter malady, and which are apparently greatly benefited by specific treatment.”

The fact is that modern scientific researches—notably those of the eminent pathologists Dr. Creighton and Professor Edgar Crookshank of King’s College, London—have demonstrated that the analogy of cowpox is not to smallpox but to syphilis ; and that when vaccination reverts to the original untamed virulency of the natural Cowpox, the symptoms run on all fours with those of the venereal pox itself.

Mr. Carter may be technically correct in maintaining that syphilis cannot be produced by vaccination with calf lymph. It is solely an abstruse and unsettled question in medical terminology of absolutely no public interest. The precise term to be applied to the disease communicated by calf lymph vaccination in no way lessens the risk or diminishes the sufferings of its victims. It is no longer denied by any advocate of vaccination who has a scientific reputation to lose that calf lymph may give rise to symptoms as loathsome, sufferings and death as agonising, as characterize venereal syphilis in its most virulent forms. And this is the sole point of public concern.—Yours truly,

A. TROBRIDGE, F.S.S.

Langley, near Birmingham,

Feb. 16th, 1898.

(*Vaccination Inquirer*, May 1898, p 35).

DR. BENCRAFT (P-V. SOUTHAMPTON.)—

“The last witness brought the deceased child to be vaccinated on August 25th. It was the only fresh case brought to be vaccinated that afternoon. She said she would like it done from a child called Hurst, whose mother was in the station at the time. The child Hurst was healthy looking. He made three punctures. The Hurst infant had been vaccinated a week previous on August 18th, and it was going on all right, showing no signs of blood poisoning. The deceased was brought to him at the station on September 1st by the mother, who said she didn't want a lot of children vaccinated from it. It was explained to her that the law allowed him to take lymph, and if she objected she must fight it out before the magistrates. He had at last to tell her not to be impertinent. He took some lymph on some points, and at that time the wound was in a healthy condition. He had subsequently vaccinated five or six children from lymph taken from the deceased child the local Government Board did not approve of calf lymph, and the Inspector told him that if he used calf lymph he would not be paid for those cases. If the lymph had been poisonous it would have shewn itself on the seventh day, and in this case he had no hesitation in taking lymph from the deceased child on the seventh day. Blood poisoning might have been caused from the insanitary surroundings to which a newly vaccinated child would be particularly susceptible of course the pustule would be pricked, otherwise there could be no vaccination. The law provided that Public Vaccinators should take lymph in this way.” (*Vaccination Inquirer, November, 1896, p. 131.*)

DR. LAUDER—

“Said he saw the child on the 10th inst. There were unhealthy vaccination marks and diffused inflammation of the cellular tissue on the left chest. There was an abscess under the arm, which he opened and told the mother to poultice. He subsequently dressed the wound on several occasions. Before the postmortem he came to the conclusion that death was caused by vaccination Dr. Lauder added that he had seen one of the children which had been vaccinated from lymph taken from the arm of the deceased and it showed almost precisely similar conditions. The wound was very severe and nearly as bad as the deceased. There might however, have been some hereditary disease in this child which would have accounted for septic poisoning.” (*Vaccination Inquirer, November, 1896, p. 132.*)

DR. RAKE—

“A doctor in a tropical island vaccinated his own child from a native child which afterwards became leprous : then he vaccinated another child from his child : both his child and the third child became leprous afterwards.” (*Q. 18,640, Roy. Com. Vaccn., see Vaccination Inquirer, p. 85, October, 1897.*)

DR. MALCOLM MORRIS, F.R.C.S. ED., SURGEON TO THE SKIN DEPARTMENT, ST. MARY'S HOSPITAL.—

PROPOSED CLASSIFICATION OF VACCINAL
ERUPTIONS.

Group 1.—Eruptions due to pure vaccine inoculation.

Division A. Secondary local inoculation of vaccine.

B. Eruptions following^d within the first three days before the development of vesicles.

Urticaria.

Erythema multiforme.

Vesicular and bulbous eruptions.

C. Eruptions following after development of vesicles due to absorption of virus.

1. Roseola—like measles.

Erythema—like scarlet fever.

Purpura.

2. Generalized vaccinia (*Vaccine generalisee*).

D. Eruptions appearing as sequelæ of vaccination : eczema, psoriasis, urticaria, etc.

Group 2.—Eruptions due to mixed inoculation.

Division A. Introduced at time of vaccination.

Sub-division *a*. Producing local skin disease.

Contagious impetigo.

Erythema.

Sub-division *b*. Producing constitutional disease.

Syphilis.

Leprosy ?

Tuberculosis ?

Division B. Introduced, not at time of vaccination, but subsequently, through the wound.

1. Erysipelas.

2. Cellulitis.

3. Furunculosis.

4. Gangrene.

5. Pyæmia.

“ In connection with syphilis, much has been recorded, and the fact that it is communicated by vaccination cannot be denied. The work done by Mr. Hutchinson and others, proves this beyond dispute. (*From a paper on “ Vaccination Eruptions” read at the British Medical Association Meeting, Birmingham. July, 1890. See Vaccination Inquirer, January, 1897, p. 167.*)

PROFESSOR F. SMITH, M.R.C.V.S., F.I.C.,
ALDERSHOT.—

“ We are still left in ignorance of the probable length of protection afforded by efficient vaccination, viz., is it a protection for a term of years, months or weeks? My figures show that 68·47 per cent. of persons between the ages of 18 and 20 years, have travelled back to their condition of absolute unprotection

“ Further, are we to believe that an efficient re-vaccination at some period of our lives will give a long immunity or an immunity which can only be measured by months? On this question I considered I had come across some new facts, but Dr. Cory in a recent letter to me has expressed himself that he has often seen a re-vaccination take within four months after re-vaccination, the character of the eruption being however very modified

“ In endeavouring to focus the facts contained in this communication I would draw attention to the following points :—

1. The large proportion of unprotected adults in the community, as judged by their susceptibility to vaccination.
2. The very brief protection afforded by vaccination and re-vaccination, as judged by the successful re-vaccinations.

3. The certainty with which re-vaccinations can be made within a short period of a previous re-vaccination.

4. The possibility of successfully re-vaccinating an infant 12 months after a primary vaccination, the vesicle running a shorter course, but being nearly indistinguishable on the fifth day from a primary vesicle on the eighth day.

5. The necessity for five insertions if efficient vaccination is to be practised." (*Paper read at the Congress of the Sanitary Institute—Portsmouth, 1892.*)

DR. BOND :—

“ It was not safe, however, to trust to primary vaccination. He had seen many cases among children who had been vaccinated, and who had had Smallpox before they had reached five years. To afford any protection, there must be re-vaccination.”—(*Trans. of Sanitary Institute. Vol. XIII, p 120*).

Dr. FRANCIS T. BOND, M.D., GLOUCESTER :—

“ The risks which very young children run of illness or death from Smallpox are very small, under our present system of sanitary control, when compared with those which they incur from the disturbances which vaccination produces occasionally at that age, and there are probably not a few who will agree that if primary vaccination were postponed altogether until the child arrives at the school age, except in the presence of an outbreak of Smallpox, when pressure to have the child vaccinated is expedient, there would, on the whole, be more gain than loss from such an alteration of the law.”—(*Paper read at the Health Congress—see also Vaccination Inquirer. 22-4-03*).

“If any statement is circulated with the authority of Dr. Chalmers, as Mr. Begg says, to the effect that vaccination is an absolute protection against Smallpox, I am sure it must be unknowingly and it should certainly be withdrawn.”—(*Glasgow Herald*—see also *Vaccination Inquirer*, March 1901, p 196).

“That the hospital was in more ways than one a potent cause of the increase of the epidemic is unquestionable.”—(*Vaccn. Act of 1898. Fawcett p 23*).

“It may be quite true that hundreds of petitions against the use of this lymph have been presented to the German Reichsrath, but those who know how such documents are dealt with by that body will not be surprised to learn that they have not in the slightest degree induced the German Government to discontinue its use.”—(*The Times*, Aug. 16th, 1898 and *Vaccn. Inqr. 106 : 11 : 98*).

DR. WILLIAM OGLE, M.D., SUPT. OF STATISTICS
IN THE OFFICE OF REGISTRAR GENERAL :—

Q. 459—(*Dr. Collins*). I think you said when you were last before the commission that you would be good enough to give us the deaths from chicken-pox for such years as they are available?
Ans.—“Certainly.”—(*handing in a table—see app. II, Table C, p 115*).

Q. 460—Could you give us any information as to the age of those who died from chicken-pox?

Ans.—“I would rather say those who are returned as dying from chicken-pox, for I never myself knew a child die of chicken-pox. If you will give me one of the Annual Reports I can point out to you what were the ages.”

Q. 461—I believe as a rule they are under 5 years of age, are they not? Ans.—“Certainly.”

Q. 462—You have just told us that you do not think that a child has ever died from chicken-pox: did you include such figures because you could not otherwise make the figures comparable?

Ans.—“ I included chicken-pox with Smallpox because I could not otherwise make the figures for the whole series of years strictly comparable.”

Q. 463—Would you agree with the Registrar General who, in his 49th report, says of chicken-pox, “ As this ailment is rarely or never fatal, in all probability most or all of these deaths were due to Smallpox? ”

Ans.—“ Yes.”

Q. 464—I believe some authorities are of opinion that chicken-pox and Small-pox are the same disease?

Ans.—“ That is a matter that hardly comes under the statistician’s consideration. I see that in the year 1880, the report for which year is put into my hands now, of 66 deaths of males attributed to chicken-pox at all ages, 65 were under five years of age.”

Q. 465—I think that prevails throughout?

Ans.—“ Yes. The deaths ascribed to chicken-pox are invariably of young children.”

Q. 466—Have you any reason to suppose that those cases of fatal chicken-pox were cases of varioloid or modified Smallpox?

Ans.—“ I have no statistical evidence upon it; I can only express my opinion. The deaths were returned as deaths from chicken-pox, and they are so tabulated. My own opinion is that in all probability they were cases of Smallpox.”

Q. 534—(*Mr. Bradlaugh*). Referring to your answer to Question 371, to which allusion has just been made, that the Act of 1867, in your opinion, was inoperative; I do not know whether you have read the evidence of Mr. now Sir, John

Simon before the committee of 1871? Ans.—“ I have not read it recently.”

Q. 535—Are you aware that Mr. Simon then thought that the working of the law of 1867 had fully doubled infantile vaccination? Ans.—Very possibly he may have said so.”

Q. 536—If your attention had been drawn to that, would you have put it quite as positively that the act had been inoperative? Ans.—“ I have already said that I should have said comparatively inoperative.”

Q. 623—(*Mr. Picton*) I wish to ask you a question upon the point of the effect of sanitation on Smallpox. If a table were furnished giving the number of Smallpox deaths in a healthy district, and the number of deaths in an unhealthy district, would you expect there to be any difference between them? Ans.—“ Yes.”

Q. 624—Then you do think that sanitation has an effect upon Smallpox? Ans.—“ Certainly it has upon all diseases. The chances of catching Smallpox are greater if the people are living in the close aggregation of overcrowded tenements, which is an insanitary condition; and again the chances of their dying are greater if they are neglected.”

Q. 625—But you think that it has the same effect on Smallpox as upon other diseases? Ans.—“ I attribute to it the same effect upon Smallpox as upon other infectious diseases. I see no reason why Smallpox should be affected by sanitary condition more than measles.”

Q. 626—You are probably aware of the table on p 29 of the supplement to the 35th Annual Report of the Registrar General: you will see that there the country is divided into healthy districts, all England, and Liverpool, which was peculiarly bad

at that time? Ans.—“Liverpool always has a very high death-rate.”

Q. 627—You will observe that in the “healthy districts,” the number of deaths of children born alive from Smallpox was 602 per million? Ans.—“Yes.”

Q. 628—And in all England per million, 3,331? Ans.—“Yes.”

Q. 629—That I reckon as 18 and a decimal per thousand? Ans.—“The table shows an enormous difference between the healthy districts and England in the mortality from Smallpox.”

Q. 630—Then, taking measles in the “healthy districts,” there 5,257 died per million, and in all England 11,507. There is a less difference there between the “healthy districts” and all England, in the case of measles, than there is in the case of Smallpox? Ans.—“Yes.”

Q. 631—The number is $\cdot 5$ per cent. and upwards in the “Healthy districts,” and are $1 \cdot 5$ per cent. in the whole of England? Ans.—“The difference is, as you say, much greater in the case of Smallpox than of measles.”

Q. 645—If you could keep out the Smallpox virus, or isolate it when you have it, you could stamp it out? Ans.—“Yes.”

Q. 646—In a town if we could secure that the first Smallpox case could be isolated and not come into contact with the population, we should keep out the Smallpox from the population? Ans.—“If you could always effectually isolate the first case, doubtlessly you would not have outbreaks of Smallpox in the town.”

Q. 648—(*Dr. Collins*). You think there would be more chance of annihilating Smallpox by isolation than by vaccination? Ans.—“Doubtlessly entire

isolation would be the most effective thing for suppression which you could possibly have.”

Q. 651—You think that isolation properly applied would be as effective in reducing the mortality from Small-pox as it has been in reducing the mortality from Scarlet Fever? Ans.—“I think perfect isolation would be entirely effective.”—(*R.C.V. First Report*).

DR. RICHARD THORNE THORNE, M.B., F.R.C.P.:

Q. 707—Do you mean to point out that the protection of infantile vaccination is less than the protection of infantile Smallpox? Ans.—“That is so, and the Tables and all the material which we have now collected go also to show that for many persons the protection against attack afforded by vaccination is of chief avail for the first few years after that protection has been obtained, and that, as a complete protection against death from Smallpox infantile vaccination cannot be relied on as lasting throughout adult life.”

Q. 756—(*Dr. Collins*). Does not the Registrar General record deaths of children under five years of age from typhus? Ans.—“Oh, Yes; but our work in the country often deals with alleged typhus which is no more typhus than it is Smallpox. There is still a large body of medical practitioners in the country who were educated before the day of Sir William Jenner, who, I am sorry to say, do not now know the difference between typhus and typhoid fevers.”

Q. 762—(*Sir James Paget*). I suppose the mortality from Smallpox in a given number of cases might be expected to be greater in ill-ventilated and unsanitary places, than it would be in

sanitary places? Ans.—“ I imagine that in respect of every disease the fatality is greater if the patients are not placed under proper sanitary conditions ”

Q. 763—Therefore you would not say that sanitary conditions have any influence on the frequency of Smallpox, although they have upon the mortality attending it? Ans.—“ I am speaking upon the question of sewerage and water supply : I do not know how far water supply would affect recovery of a Smallpox patient. Even if the water supply contained the specific poison of enteric fever, I do not know how it would influence a Smallpox patient during the acute stage, but, generally speaking, insanitary conditions, including sewerage and drainage, do operate for evil upon all persons who are ill, and to that extent tend to prevent recovery.”

Q. 764—(*Chairman*). Unsanitary conditions would not, necessarily increase the number of Smallpox cases? Ans.—“ I should be sorry to say that overcrowding, either on area or in houses, would not tend, during an epidemic, to increase it, because it is a poison which is diffused aërially, and overcrowding would tend to increase it in precisely the same way as it would tend to increase Scarlet Fever, Whooping-cough and Measles ; and it is for that reason that I have put those four diseases together in the diagram

Q. 799—(*Dr. Collins*) I think it is part of the duty of the Local Government Board to supply vaccine lymph to registered medical practitioners? Ans.—“ They do so. I do not know whether it is their duty or not.”

Q. 800—Can you give the Commission any information as to the sources from which lymph is derived? Ans.—“ It is all derived from Public

Vaccination Stations, either where human lymph is used, or from the calf station in Lamb's Conduit Street."

Q. 801—I was asking rather as to the remote origin than the immediate origin from the arm?

Ans.—“I am afraid that my opinion upon the remote origin of vaccine lymph would be of very little interest to the Commission. I have never studied the question: I have a great deal to do, and I have not taken up that point. It has been a matter of little importance to me where it came from so long as the results as regards Smallpox were what they are.”

Q. 802—I suppose recently when the calf lymph establishment was contemplated it became necessary to obtain a supply of calf lymph with which to originate the inoculation? Ans.—“It did.”

Q. 803—Did that come within your department?

Ans.—“It did, but I was at that time a travelling inspector in the country, and did not even know of it till I read it in the reports.”

Q. 804—Who would be able to give us information as to this point? Ans.—“Dr. Buchanan will be able to give that information.”

Q. 806—Now with regard to Dr. Seaton's Report to the Local Government Board in 1874, which you put in as evidence, may I take it that, in addition to having read the work, you are satisfied of the facts and figures therein contained as being tolerably accurate? Ans.—“I accept Dr. Seaton's facts and figures. I have not verified them; it would be several years work to do so.”

Q. 807—I see on page 9 that it is stated:—“The estimated annual Smallpox death rate of England in the last century was 3,000 per million of

population.” Could you give us any notion how that was ascertained? Ans.—“I cannot, I have not the data on which this report was compiled. Dr. Seaton is unfortunately dead : and I may say, as the result of a very laborious search which was made for some of his original papers, that we have not been able to secure them.”

Q. 808—We have been told that there is no means of ascertaining with any degree of precision, the population of this country in the last century; if that were the case, I presume the figures of 3,000 per million of the population could not be vouched with any accuracy? Ans.—“It is given here merely as an estimate : I suppose it was estimated from the best means he had.”

Q 809—You are not aware of the basis on which it was founded? Ans.—“I am sorry to say we have not the data upon which Dr. Seaton compiled his work.”

Q. 811—I see that in the Blue Book for 1871, at page 253, Question 4,389, Dr. Wood in reply to the question “Can you state whether the operation of the Act of 1863 has largely diminished the amount of epidemic Smallpox in Scotland?” stated “very largely. Both the Registrar in his Reports, and the Board of Supervision have testified to the extreme value of the Scotch Act,” and in the next column he gave figures showing the decline from 1,646 deaths from Smallpox in 1863 to 15 in 1868, 100 in 1869, and 150 in 1870. Now I find that in the year 1871 there were 1442 deaths from Smallpox in Scotland, in 1872 2,446; in 1873, 1,126 ; in 1874, 1,246, making a total in four years of 6260. Do you think, if the decline then claimed for the administration of the vaccination Act of 1863 were attributed to the operation

of that Act, that the excessive mortality in the following years would render that previous conclusion an unfair or an unjustifiable one? Ans.—“ I should imagine that the increase during that period of epidemic, was precisely on the same footing as the increase which we had in England and that the arguments which have been used with reference to England would apply in the same way to Scotland, but with reference to legislation in Scotland I have no detailed information as to its influence. One would have to examine these statistics and see how far it was a matter of age incidence before one could say that vaccination had not protected the population for a certain period of years after the performance of the operation.”

Q. 812—You do not think there was rather a tendency there, which possibly has been imitated elsewhere, to claim that when Smallpox has subsided coincidently with the extension of vaccination, vaccination has been responsible for stamping it out, whereas a subsequent epidemic has disproved that observation? Ans.—“ I should say that no epidemic that we have any actual details about has ever disproved the value of vaccination. What the 1871-72 epidemic has done has been to make more certain that the claim originally made as to protection for the whole of life from one vaccination, was an unsound claim, and that the protection afforded is one limited in its duration. Whatever claim may have been made before that date was made in ignorance of the fact which has become so perfectly clear since we have studied the effect of the epidemic of 1871-72.”

Q. 813—But if the value of general vaccination was held to be demonstrated by the decline from

this year, 1863, would not the large epidemic which followed immediately afterwards tend to falsify that conclusion? Ans.—“Not necessarily

Q. 815—I find that in 1871 in Ireland there were 665 deaths from Smallpox; in 1872, 3248; in 1873, 504; in 1874, 509; and in 1875, 565. I was anxious to ask whether you think the result of that epidemic in Ireland in 1871, 1872, 1873, 1874 and 1875 would tend to alter in any way the opinion which apparently was then expressed, that the operation of the Act of 1863 was the cause of the decline in the preceding years? Ans.—“I would beg leave to answer that question at my further leisure. It contains a number of figures and hypotheses, and relates to a country of which I know nothing.”

Q. 845—(*Dr. Collins*). I see that in Dr. Seaton's Report upon the 1871 epidemic, at page 43, under “Causes of Imperfect Vaccination,” he puts down a complete ignorance of the rules laid down by Jenner as essential for the efficient performance of vaccination. Can you tell us what was the rule of Jenner as to the number of marks that were required for complete protection? Ans.—“I think I might mislead the commission if I attempted to go into the early history of vaccination. I think I said on the last occasion that it is not a subject that I have studied in any detail.”

Q. 846—Are you aware that Jenner in his “Further Observations,” at p. 109 said, “A single Cowpox pustule is all that is necessary to render the variolous virus ineffectual?” Ans.—“I believe you are perfectly correct: I remember the statement, and it is one of a number of statements on which Jenner's experience was not,

I assume, sufficiently lengthened and exhaustive to guide us at the present day.”

Q. 850—I see that in the 24th volume of the Medical and Chirurgical Transactions, 1841, a paper contributed by Dr. Gregory, of the Smallpox Hospital, upon Vaccination and Smallpox, especially with reference to the theory of vaccine influence, and the relations between the cicatrix and the character of the variola. On p. 23, after detailing several cases he says: “I think from these cases the cicatrix cannot be relied on as affording any certain test of the degree to which the constitution has imbibed an anti-variolous influence;” so that it would appear from Dr. Gregory, who apparently had as abundant opportunities of investigating as Dr. Marson, that his observations has led him to an opposite conclusion? Ans.—“I cannot pretend to go behind Dr. Gregory’s facts: I never read his paper.”

Q. 851—You will agree that there was evidently diversity of opinion upon the subject? Ans.—“That seems to be so from the particular passage which you have quoted.”

Q. 852—Perhaps you are aware, with regard to the protection of nurses by re-vaccination, that the experiment was tried at the South Dublin Union Hospital of not re-vaccinating nurses? Ans.—“I believe that is doubted, but I do not happen to have the facts in my mind at present, and I could not speak upon that point.”

Q. 853—I see in the Medical Press and Circular for March 27th, 1872, a paper read before the Surgical Society of Ireland, and Mr. Frank Thorpe Porter, who was attached to the Smallpox Hospital in Dublin, says: “With reference to re-vaccination, I have no faith in it. Not one of

the 36 attendants at the South Dublin Union sheds has taken Smallpox. Only 7 of the number were re-vaccinated, and as the remaining 29 enjoy the same immunity, wherein is the necessity of the operation?" Ans.—“Does he happen to say whether they had had Smallpox before?”

Q. 854—He does not? Ans.—“Then I should say the evidence is of no value whatever without that information.”

Q. 915—(*Mr. Picton*). Is it not supposed to have a spreading effect upon the blood? Ans.—“We really know absolutely nothing as to the effect of the specific poisons upon the blood.”

Q. 916—But do you not believe that Cowpox is self multiplying when once inserted in the body? Ans.—“I am not prepared to answer that as regards Cowpox.”

Q. 917—Do you think that the quality of the lymph apart from the number of incisions, has nothing to do with the effectiveness of vaccination? Ans.—“No: I have said nothing, I think, that would justify such an inference.”

Q. 918—You emphasised very much the number of incisions or the number of pustules, and I did not notice that you said anything about the quality of the lymph: do you attach importance to the quality of the lymph? Ans.—“We attach the very greatest importance to the quality of the lymph, in so far as it can be judged of.”

Q. 919—How can you judge of it? Ans.—“By the local effects that it has produced upon those from whom it was taken.”

Q. 920—Has not some lymph a genealogy which shows it to have produced different effects upon different people? Ans.—“It might do, but I could not say that it would be the lymph alone

that did it. The same lymph will produce different effects upon two different children

Q. 921—Are you able by the microscope or by any other mode of investigation to find any difference between one lymph and another, apart from the symptoms produced by its insertion? Ans.—“I am no skilled microscopist but speaking generally of what is termed good lymph, I believe there is no difference detectable under the microscope.”

Q. 922—Have you yourself examined it under a microscope? Ans.—“I am no microscopist.”—*(R. C. V.—First Report)*.

DR. THORPE PORTER :—

“I have known a great many medical men to attend to very bad cases of Smallpox and they did not take the infection, although they were not re-vaccinated. I attended a very bad case of miscarriage myself where the woman had confluent Smallpox, and if a man is likely to take Smallpox he would be likely to take it from a case of that kind, and I was not re-vaccinated and took no infection.” *(Ans. to Q. 22232, R. C. V.)*

Q. 22233.—Do you mean to say you have never been re-vaccinated since infancy? Ans.—“No, never.” *(Royal Com. Vaccn., see Vacc. Inq., Oct. 1897, p. 94)*.

DR. ILIFFE :—

“Mr. Burman is like many others whose mode of thought cannot distinguish between successful and unsuccessful Vaccination. When I speak of Vaccination, I mean successful Vaccination—an operation which leaves definite marks, which, to the experienced cannot be mistaken. Such marks the poor fellow Smith, who died, did not exhibit, and therefore I was justified in putting him in the

list of unvaccinated cases. Mr. Burman might just as well say, that a glass eye is as useful as a natural one, as to say that a few scratches on the arm are necessarily the same as successful vaccination." (*Derby Daily Telegraph, Vaccn. Inquirer, p. 138, January, 1896.*)

DR. A. MCCOOK WEIR :—

"I was one of the first to adopt and advocate the use of calf lymph, and about 18 years ago visited Dr. Warlomont's Institute in Brussels, and saw the process of Calf-vaccination, and from that date carried on private vaccination with calf lymph only. No lymph was taken from the arm and lancet points were generally used. After some years I abandoned it for the following reasons: (1) The percentage of failures was high; (2) Very bad arms resulted; and (3) a diffused papular eruption was common. Calf lymph is well known to be slow in its action, not maturing before the 9th or 10th day, and convalescence is prolonged, repeated scales forming and being thrown off over the site of the vesicles for a month or six weeks. Some of these objections may have resulted from impurities in the lymph, but as regards No. 1 my success was no greater with glycerinated calf lymph." (*British Medical Journal, 11th January, 1898, see Vaccn. Inqr., March, 1898, p. 162.*)

"In regard to Dr. Bond's request to medical men to discuss with ant-vaccinators in the public press, I would like to warn the unwary not to attempt such a thing. I had the misfortune to be drawn into a discussion some years ago and found myself in a contest with anti-vaccinators from all parts of the country for quite two years, and have always regretted it. Anti-vaccinators

should be left severely alone and if Parliament choose to abolish compulsory vaccination so much the worse for the anti-vaccinators, and the better for the profession." (*Medicine, see Vaccn. Inqr., March, 1898, p. 162.*)

DR. H. H. TAYLOR, F.R.C.S. :—

"I propose to produce evidence which places beyond any doubt that syphilitic results have followed carefully performed vaccination: and indeed that in some cases it has been practically unavoidable." (*Q. 21,854, R.C.V.*)

"The vaccinal sore is, in some cases, to all intents and purposes a chancre; and has often been taken for a syphilitic sore."

"I have seen it mistaken for a syphilitic sore." (*Q. 21973-5, R.C.V.*)

"I once examined some tubes (which I obtained from the Local Government Board) and I found great difficulty in examining them with a quarter of an inch power; in all of them I saw blood corpuscles in different stages of degeneration." (*Q. 22049, R.C.V.*) — (*Vaccination Inquirer, October, 1897, p.p. 92-93.*)

DR. FREDERICK TAYLOR :—

"There was a large sloughing wound on the upper part of the left arm where the child had been vaccinated, there was a sloughing wound on the face and other sores or vesicles: that is to say, one below the wound on the arm and another on the side of the chest I supposed that it was the result of vaccination: in part at least: it was reported to me that the child had been vaccinated at the same time with another; that calf-lymph had been used, and that the other child was perfectly well. There was nothing I

could ascertain in the history of the child which explained to me why the vaccination had gone wrong in the way it did It was an extensive gangrenous sore instead of a mere vesicle recovering in a few days, which commonly takes place as the result of vaccination I would not speak of it as a characteristic vaccine vesicle, but it is a flat vesicle, and it is a good deal like it the child was not badly nourished the mother appeared to me to be a perfectly respectable woman I cannot see any other cause : the vaccination, I take it, must have had something to do with it, but still there must have been another factor, because the other child did not suffer : the question is what the other factor was." (*A. to Q. 23,064—23082, R. C. Vaccn., Vaccination Inquirer, October, 1897, p.p. 96-97.*)

DR. EDWARD WARD, M.B., B.CH., LEEDS GEN. INF. :—

“Supposing the occurrence of vaccinal syphilis amongst a few vaccinees from a certain vaccinifer, the fact that any escaped would be no evidence against the syphilis in the vaccinifer : that is my opinion certainly” “the case was one of syphilis, and he believed it to be acquired syphilis contracted at or about the time of vaccination” “That the child died as the result of vaccination I do not think there can be the least doubt.” (*Answers to Q. 23,718—23,746, R. C. Vaccn., see Vaccn. Inqr., October, 1897, p.p. 98-99.*)

DR. LITTLEWOOD, F.R.C.S., RESIDENT SURGICAL OFFICER, LEEDS INFIRMARY :—

“I went very carefully into it to see if I could

get any indication of a history of syphilis and I failed to do so." *Ansr. to Q. 23,845, Roy. Com. Vaccn.*)

"The result was that I thought the case was one of vaccinal syphilis." *Answer to Q. 23,845, Roy. Com. Vaccn.*) (See also *Vaccn. Inqr.*, 99, October, 1897.)

DR. A. G. BARRS, HON. PATHOLOGIST, LEEDS GENERAL INFIRMARY :—

"The verdict was that the child died from syphilis acquired at or from vaccination?—"That was my opinion at the time, and it is still." (*Answer to Q. 23911, R.C.V.*)

"Do you think that the vaccination was the starting point of the disease from which the child died"? "I think so, I cannot see any other explanation of it." *Answer to Q. 23912, R.C.V. see Vaccn. Inqr.*, October, 1897, p. 99.

SIR W. PRIESTLEY, M.P. :—

"The Royal Commission in their report stated that in some instances syphilis had been communicated by vaccination, but it could not have been so communicated to any substantial extent."

• • • • •
"Admitting that harm was done by the practice of vaccination it was not easy at any time to do a vast amount of good without some modicum of harm" • • • • •

"To the extension of the limit of age he saw no objection so far as danger to children was concerned, for experience had shown that infants under twelve months were unlikely to take Smallpox" • • • • •

"The evidence given before the Royal Commission and medical experience showed that the

efficacy of vaccination became less with lapse of years. The celebrated Dr. Jenner, with pardonable enthusiasm fell into the mistake of supposing that he had found a remedy for the whole life of the patient; but observation had abundantly proved that when ten or twelve years elapsed after vaccination, though the operation might modify the effect of the disease, it was not a preservative against Smallpox”

“Science knew nothing of sanitary conditions in reference to Smallpox, but, no doubt, improved sanitary conditions would prevent the spread of some diseases—notably typhoid, if contagion were kept out of the water. But sanitary conditions would not prevent children from taking Smallpox if infection were introduced into a house and anyone went into a railway station, cab, or omnibus where a Smallpox patient had been before him.” (*The Times*, April 20th, 1898. *Vaccination Inquirer*, May, 1898, p.p. 21-22.)

DR. MC VAIL :—

“On healthy males a third vaccination is performed when they enter the army, but no evidence has yet been produced of excessive prevalence of Smallpox among the female population of Germany through their want of a third vaccination.” (*Lancet*, 23rd May, 1896). (*V.I.* 38/6/96).

“Due weight, but not more than due weight, must be given to the existing opposition to vaccination in many parts of the country. As regards compulsory vaccinal legislation, it is beside the question to argue that the anti-vaccination movement is carried on mainly by cranks, and that the public is simply being gulled by their persistent mis-representations and misstate-

ments. All that, and much more, may easily be granted without altering the hard fact that a very appreciable number of people have been misled into doubting or denying the value of vaccination and into the fear that vaccination may cause all kinds of unknown evils to their children In quite a number of localities, as has already been indicated, the law is at present a dead letter, and in at least a few of these it is probable that it could not be generally brought into operation again excepting by forcibly taking the child from the mother's arms and vaccinating the child in spite of her protests

“In the best interests of vaccination itself, I would abolish, not only imprisonment for unpaid fines, not only repeated prosecutions and penalties, but all prosecutions and penalties whatsoever directed against any man for refusal to allow vaccination of those for whom he is responsible.”
 (*Lancet*, 23rd May, 1896, V.I., June, 1896, p. 40.)

“So that the disease which, with the insight of genius, Jenner had designated ‘variolœ vaccinœ’ was found to resemble human Smallpox in the occasional failure of its protective power.”
 (*Vaccn. Vindicated*, p. 33, Cassell.)

“In certain rare cases, neither vaccination nor Smallpox will prevent subsequent Smallpox The power of recovery from an attack of Smallpox appears to be decreasing.”
 (*Vaccn. Vindicated*, p. 43, Cassell.)

SIR W. FOSTER, M.P. :—

“He thought the advantages of vaccinating children at a later age was so great that they ought not to be deterred from extending the age to six, if not to twelve months. There was no

doubt that if they could make vaccination less perilous to the children they would find less objection to the operation on the part of the parents."

"The present system of requiring children to attend at vaccination stations for vaccination by public vaccinators was in many ways objectionable. It brought a crowd of children into one locality which often occasioned the spread of contagious diseases."

"Anyone who had given careful study to the report of the Royal Commission must come to the conclusion that that report practically killed compulsion"

"The administration of the law was in the hands of the Boards of Guardians"

"The sincere and honest objector was not likely to be compelled by fines and imprisonments to accede to the vaccination of his children."

. (*The Times*, April 20th, 1868, see *Vaccn. Inquirer*, May, 1898, p.p. 19-20.)

DR. R. A. BIRDWOOD, ASST. M. O., HAMPSTEAD S.P. HOSP., MED. SUP. HOSPITAL SHIPS—has seen 12,000 cases.

"It is a pity that the word "compulsory" has been associated with vaccination in its legal aspect. The law apparently does not compel the vaccination of a child. I hope it never will. I further hope that all penalties for neglecting vaccination will be abolished. The unvaccinated person is no danger to me nor to my family. The public health is secured, not by punishing those who object, probably according to their light rightly object, but by securing the willing and cultured co-operation of every individual in carrying out thoroughly:—(1) Isolation of the sick:

(2) Disinfection of all articles : and (3) If they so will it vaccination of the unprotected. For the extermination of Smallpox in Britain reliance should alone be placed on the special education of the people in knowledge of the disease and the means of its prevention." (*A. to Q. 31 221 R.C.V.*) And your faith in vaccination is so strong that it enables you to leave other people free to exercise their own judgment? Q. 31270. Ans. — "Certainly : I say so. They are no danger to me, because I am protected." (*Vaccn. Inqr., October, 1897, p. 100.*)

"Smallpox is a Protean disease, and its benign and modified forms do sometimes occur in the unvaccinated : its most severe (hæmorrhagic and confluent) and fatal, do sometimes occur in the well-vaccinated." (*Vaccn. Inq., June, 1900, p. 45.*)

"Vaccination is a serious disease causing much discomfort to an adult." (*Answer to Q. 31,221, Roy. Com. Vaccn., see Vaccn. Inqr., February, 1898, p. 151.*)

DR. GAYTON :—

Ans. to Q. 1755 R.C.V. "Primary vaccination is a very fleeting protection indeed."

Q. 1768.—Is vaccination protective up to any age whatever? Ans.—"My table shows that it is not, because I think there are some cases under two years."

Ans. to Q. 1770 :—"It would not ward off an epidemic." (*Vaccn. Inq., February, 1896, p. 155, and January, 1902, p. 184.*)

DR. HENRY LANKESTER, M.R.C.S., DEPUTY MAYOR OF LEICESTER.

(Leicester sent to the Royal Commission on Vaccination no less than 48 witnesses consisting

of the Mayor, Ex-Mayor, Aldermen, Magistrates, Councillors, Town Clerk, Members of the Board of Guardians and Mr. James Ellis, M.P., who was Chairman of the School Board. The deputation from the three Governing bodies presented the following resolution which had been passed unanimously by the Town Council, and adopted by the other two public authorities, viz :—“ That in the opinion of this Council it is inexpedient and unjust to enforce vaccination under penalties upon those who regard it as unadvisable and dangerous.” (*R.C.V. Summary of the seven reports from an anti-Vaccinator's point of view by a witness. p. 6.*) “ He was Mayor when that resolution was passed.”

Q. 13043—I believe you are yourself favourable to vaccination? Ans.—“ Certainly.”

Q. 13044—But you are opposed to compulsory vaccination? Ans.—“ Yes.”

Q. 13045—Will you favour the Commission with your reasons for your opposition to compulsory vaccination? Ans.—“ Mainly because I believe in the conscientious objection which so many have entertained against the operation: and secondly, because wishing, as I do, to do unto others as I would be done unto, if I strongly and conscientiously objected to vaccination I should strongly object to have my child operated upon in a way I should deprecate as being injurious to its health.”

DR. C. KILLICK MILLARD, M.O.H., LEICESTER.

“ The really essential features of the “ Leicester Method ” are the prompt notification and isolation of every case of Smallpox, followed by disinfection of houses and clothing, &c., and the close surveillance of contacts. Vaccination only enters

into the "method" to the extent of protecting the Staff engaged on Smallpox duty—a most important administrative detail—and so many of the actual contacts as can be persuaded to submit to it. These methods for dealing with Smallpox are now being almost universally adopted, but in most places they are considered as only of secondary importance, chief reliance still being placed on universal vaccination. In Leicester, on the other hand, they are considered of paramount importance, and the whole attention of the staff is concentrated upon them, universal vaccination having been practically abandoned." (*Report on the Smallpox Epidemic in Leicester in 1903—Vaccn. Inqr., July, 1904, p. 73*).

"Smallpox is not infectious, speaking generally, during the incubation period. The onset is sudden, not insidious, so that as soon as an unvaccinated child sickens, it at once becomes too ill to attend school. The case would be very different if a vaccinated child contracted the disease. In such cases the attack is almost always so slight and trifling in character that it might easily happen that it would escape detection, and the child continue to attend school. In Leicester, however, the proportion of vaccinated children is so small that such a contingency has not yet happened. Should it ever occur, the consequences would probably be disastrous. During the recent epidemic the disease was of so favourable a type that some of the unvaccinated cases assumed the highly modified and trivial character so often seen in vaccinated cases." (*Report on Smallpox Epidemic in Leicester in 1904, Vaccn. Inq., July, 1905, p. 73*).

"Mr. Anderson appears to have picked out and read certain sentences from a letter written

by me to the Medical Officer of Health for Glasgow (Dr. Chalmers) in reply to an inquiry from him as to our methods of dealing with Smallpox in Leicester. The portion thus picked out for publication scarcely conveys the exact sense of the whole passage which is as follows:—

“I may observe that very little vaccination was performed in Leicester last year, in spite of the epidemic, apart from the vaccination of contacts. The latter is a measure to which I attach great importance, and so far as Leicester is concerned would appear to be sufficient, judging from past experience, combined with our measures to arrest the spread of the disease without resorting to general vaccination of the population. Nevertheless should at any time an epidemic get altogether out of hand, I should advise my council to follow the example of Glasgow, and resort to universal vaccination. I am in hopes, however, that that unfortunate day may be very long delayed, and in the meanwhile we are annually saving a very considerable sum on vaccination which fact must be borne in mind when considering the cost of resorting to universal vaccination as an emergency measure.” I also wrote:—“I wonder if you are experiencing the same difficulty in Glasgow that we have felt here, viz: that due to the occurrence of very slight unrecognised cases of the disease? Such cases have played a very large part in the spread of the disease in Leicester, and they have generally occurred in vaccinated persons.” In reply to this Dr. Chambers wrote:—“It has been a feature of all Smallpox outbreaks here that unrecognised cases are a constant source of spread. I mean cases which are unrecognised because the mildness of their symptoms fails to make it necessary that medical assistance should be obtained.”

There is one statement which Mr. Anderson is reported to have made which should certainly be corrected. He stated that the fatality of last year's epidemic in Leicester was very high, whereas in reality the exact converse was the case, the fatality being less than 6 per cent on the total cases. This, indeed, was one of the surprises of the epidemic. If Mr. Anderson really made the statement attributed to him, he must have said what he expected rather than what he knew to be the case." (*Vaccination Inquirer, March, 1904, p. 243*).

With regard to some illustrations which have been used as indicative of unmodified Smallpox, he writes:—'If the author intends to imply (as from the text he clearly does) that none of these cases had ever been vaccinated, then he is certainly in error. I have looked up my original photograph of case XXXV. B. 1., which he describes as 'an extremely severe case of confluent Smallpox in a man aged 23, on the tenth day of the disease,' and I find the following note written on the back, 'Ernest S., 23 years vaccinated, 4 marks, fair size and foveated. Photograph taken tenth day.' I remember the case quite well, as the poor fellow remained in the hospital an unusually long time owing to serious complications." (*British Medical Journal, April 18th, 1903, Vaccination Inquirer, May, 1903, p. 41, and November, 1903, p. 147*).

Dr. Millard also refers to the statement of the book referred to that in persons who have been successfully vaccinated Smallpox is invariably modified, and never assumes the more severe type illustrated in the photographs. This, says Dr. Millard, is quite at variance with the real facts, and, although a defective knowledge of Smallpox

is excusable in a German author, it is certainly surprising that an English translator should have passed the statement without comment. That it was allowed to pass seems to indicate (adds Dr. Millard) that amongst medical men who have not had much practical experience of Smallpox, there is a somewhat exaggerated idea as to the efficacy of vaccination." (*Vaccn. Inq.*, May, 1905, p. 41).

"Vaccination is by no means the trivial operation it is sometimes represented to be." (*Leicester Smallpox Report*, 1904, p. 36, see also *Vaccn. Inq.*, 66-7-05 and 69-7-05).

"It must never be forgotten that vaccination, is, after all, a disease, and those of us whose profession it is to prevent disease should be ready to abandon it at the earliest possible moment consistent with the public safety. The control of disease by the substitution of one disease for another, whilst it may be expedient, can never be regarded as an ideal method; and, whilst I fully recognised the immense and lasting utility of vaccination under certain circumstances (*e.g.* after exposure to infection), I venture to suggest that universal compulsory vaccination need only be regarded as a temporary expedient." (*Public Health Congress at Exeter*, July, 1902).

"In conclusion, I wish to suggest that if the 'Leicester Method,' after all possible improvements have been effected, could be made sufficient for the control of Smallpox without resort to universal vaccination, then it would have to be regarded as a higher and more ideal method of disease prevention, and one more in keeping with the principles of true preventive medicine than is the present system of preventing a little Smallpox by the substitution of a great deal of vaccinia." (*Paper read before the Incorporated Society of*

Medical Officers of Health on 'the Leicester Method of dealing with Smallpox' on March, 11th, 1904, see Vaccn. Inqr., March, 1905, p. 240).

SIR SAMUEL WILKES, M.D.

“Referring to a remark by Professor Ehrlich before the Royal Society, in his Croonian lecture on “Immunity;” that “it was shown by the use of an attenuated virus, which of itself was non-injurious, that it was possible to ward off the disease caused by the virulent virus,” and that, “Jenner also established—what is most important from the practical point of view—that, by the inoculation of the weakened virus there was produced not only an immediate but also an enduring protection,” anent this Sir Samuel Wilkes, M.D., wrote to the “Lancet” that “this is only correct in a limited sense and is not true according to the usual interpretation put upon it.” (*Vaccination Inquirer, June, 1900, p. 36.*)

DR. DALTON.

“A few years ago, Dr. Dalton, a member of the Smallpox Hospitals Committee, published the results of his personal observation of 1000 cases of Smallpox treated in the ships from 1888—1893, and furnishes fuller information than the official figures vouchsafe: From Dr. Dalton we learn:—
“The greatest errors in classification are made by placing those cases where there are no marks, because the eruption is too severe for them to be visible, in the same class as where no marks are visible because they do not exist”
. “Between Twenty and Thirty the disease is uniformly mild. Not a death occurs in the unvaccinated, while in the vaccinated the deaths are between 2 per cent and 3 per cent.”

. “After Twenty years, the death percentage is as a rule much greater in those having good marks (than in those with bad)”

. “Facts such as these ought to guard us from ever assuming that, because a person has good vaccination marks, he need consequently have no fear of Smallpox”

“On the question of re-vaccination, Dr. Dalton gives a table of 61 cases of Smallpox in persons who had been re-vaccinated at least six weeks before taking Smallpox: of these seven died, and in at least three of them the re-vaccination was noted to have been successful. Dr. Dalton concludes “that re-vaccination soon loses its power.” (*Vaccination Inquirer, February, 1902, p. 200*).

“I think a little consideration will show that the presence of good typical marks may give evidence against as well as in favour of less susceptibility to Smallpox, and for the following reason: good marks, being marks, of large defined area, are partly due to the number of marks originally made and partly to other causes, one of which is a consistutional peculiarity, “susceptibility to vaccination.” This extra susceptibility is a cause of large typical vaccination marks being formed, which, we may readily assume, will be more protective for the next few years. After that time however, the effect of the vaccination in part, wears off; but if we assume, as is generally assumed, that susceptibility to vaccination implies susceptibility to Smallpox, these persons will, on this account, the more readily take Smallpox when the protective power of vaccination has become weak. It need not, therefore, be a matter of surprise that persons with good marks should in late life take Smallpox

as readily as those with bad marks, for though they have better protection, they are, in all probability, a class naturally more susceptible to Smallpox. At any rate, facts of this nature, while being no argument for vaccinating badly, ought to guard us from ever assuming that, because a person has good vaccination marks, he need consequently have no fear of Smallpox." (*Smallpox, &c.*, John Heywood, see also *V.I.*, Vol. xv., p. 1217).

DR. HUSBAND, SUPERINTENDENT, CENTRAL VACCINE INSTITUTION, EDINBURGH.

"The proper view to take of vaccination appears to be this:—"That it does not prevent Smallpox, but modifies its virulence." (*Students' Handbook of Vaccination.*, see also *Vaccn. Inqr.*, January, 1902, p. 184.)

"The microscope I seldom use, and I will mention the reason. The tubes are carefully examined, and if there is the least quantity of blood visible to the naked eye or to the magnifier we reject them; but as to the microscopical examination I may mention that many years ago on the examination of lymph I found that all lymph contains blood. What I mean by that is that all lymph contains the red cells of blood; it is impossible to get rid of it, one does not see it with the naked eye but if you put it under the microscope you will see the red cells." Q. 27327.

"This is the weak point of vaccination—that we wound the patient and nobody can tell after the wound what may be the result as regards dangerous consequences that may follow." (*A. to Q. 27, 335—R.C.V.*, see *Vaccn. Inqr.*, October, 1897, p. 99).

DR. CAMPBELL BLACK, F R.S., (EDIN.) :—

“As to the newest fad, the ‘glycerinated lymph,’ glycerine is said to be a powerful germicide, and it is to be added to vaccine lymph to kill the germs; but if vaccinia and Smallpox be due to germs, how can these diseases be communicated if their cause be excluded? If they can be communicated without germs, then they are not so caused. In his recent address in Edinburgh (British Medical Association) Professor Fraser remarked :—‘Monckton Copeman has found that lymph filtered so as to remove from it all the solid particles, and therefore presumably all micro-organisms, can produce only briefly lasting protection against unfiltered vaccine lymph of normal potency.’ He further adds: ‘I would here point out that however highly we may value the objects and success in some important directions of the experiments of Dr. Monckton Copeman and others on the effects of glycerine on vaccine lymph, it must not be overlooked that the powerful microbicidal action of glycerine upon the contaminating organism of this lymph may in course of time, weaken or even destroy the activity of the specific organism by which the long-lasting protection against Smallpox is produced.’”

“And now Monckton Copeman says: ‘The vaccine lymph to be used by the Local Government Board would be examined by the method of plate cultivation, and none would be sent out which had not been found to be not only clinically active but also bacteriologically pure.’ Where are we now? So much then for modern medical ‘science.’”
(*Glasgow Herald*, 16th August, 1898.)

DR. JOHN MOONEY, M.B. :—

“I have no desire to discuss vaccination, but

as a medical man I should like to make an allusion to the unscientific remarks which accompanied the introduction of the Vaccination Amendment Bill. Mr. Chaplin says: 'In the first place, all extraneous organisms when the lymph is mixed with glycerine are destroyed. For instance it is found that such organisms as the microbes of tubercle, erysipelas, diphtheria, and other diseases—even when they have been added for the purpose of experiment—very shortly disappear, although it retains its full activity for vaccination purposes.' "

"Is Mr. Chaplin ignorant of the fact that glycerine is one of the very, very few bodies in which tubercle bacilli can be artificially grown? How, then, can the admixture of glycerine with the lymph kill these bacilli? Is Mr. Chaplin aware that Dr. Koch's tuberculin, which was tried unsatisfactorily for the cure of tuberculosis was a glycerine extract of tubercle bacilli? So that even if the glycerine did kill the bacilli it would leave an extract of very doubtful advantage. To say 'that all extraneous organisms' are killed by glycerine is scientific nonsense. We know of no germicide which will single out one kind of microbe for mercy and kill all the rest. In the introduction to the Bill nothing is said about the spores of the bacilli, which though just as dangerous as the bacilli themselves, are notoriously more difficult to kill. To say that glycerine makes all the extraneous organisms disappear, is tantamount to saying the vaccine organism is left isolated. If this were really so, we should have had a Bill brought in to inoculate with pure cultures of this bacillus, instead of lymph mixed with glycerine, and we should by this time have had a definite description of the bacillus, whereas at present we have not. It should also be

remembered that microbes which are killed when added, 'even for the purpose of experiment, are frequently not killed when added by accidental circumstances, under somewhat different conditions in actual practice.' " (*Letter to Manchester Courier, dated March 18th, 1898, Vaccn. Inqr., 70-8-1898*).

DR. A. E. WRIGHT, LATE PROF. OF PATHOLOGY,
ARMY MEDICAL SCHOOL, NETLEY :—

"When all has been done that can be done in the way of guarding a patient against the risks attaching to the negative phase the success of a therapeutic inoculation cannot be guaranteed"

. "If the suggestions made by me in connection with anti-typhoid and anti-plague inoculation are justified, we may not unreasonably expect to find indications of an increased susceptibility to Smallpox in the period supervening immediately upon the development of vaccine pocks." (*Vaccination Inquirer, July, 1903, p. 74.*)

DR. ROBERT BARNES :—

"I have seen serious illness follow upon vaccination in adult women. In young healthy children the vaccine matter works its simple course, but in some subjects, especially those in whom some morbid process is at work, a complicated reaction takes place, an unlooked for fermentation results in a form of toxæmia involving danger to life. Cases of this kind are sure to be seized upon as the ground for 'conscientious objection' by the faddists who do not recognise their duty to their neighbours."

"The conclusion is that the fitness of the individual to go through vaccination soundly must be well weighed. This is especially proper in the

case of re-vaccination. I am afraid there is not only the fault of non-vaccination to contend with, but there is also the fault of indiscriminate vaccination." (*The Lancet*, November 16th, 1901, see also *Vaccn. Inqr.*, 162-12-1901).

DR. J. JACKSON CLARKE, M.B., (LOND.)
F.R.C.S. :—

“It has been stated (*a*) that the bodies seen in the vaccinated cornea differed essentially in their staining reaction and in their appearance from those described as protozoa in cancer. On the contrary, I found (*b*) that there was a close similarity between them, and that through a larger series of forms than was usually recognised. My contention has quite recently received important confirmation. Monckton Copeman and Mann (*c*) writing of vaccine lessons in skin, observe:— ‘Clarke rightly points out that many cells appear similar to those found in cancer’ if we cannot determine the casual agent of vaccinia, the virus of which is almost an article of commerce, and can readily be made to reproduce the affection in animals, we are hardly likely to ascertain the cause of cancer. It has recently been suggested that the parasite in vaccinia may be so minute that our present microscopes are unable to render it visible. Before lending ourselves to such a vague leading it will be wise to come to a conclusion regarding the bodies indicated in Figs 1 and 2 (see description of illustrations). The nature of these bodies is being seriously considered in all civilised countries.”

“Syphilis—The question of the presence and the meaning of protozoa in syphilitic lesions has been less extensively worked out than is the case in vaccinia and cancer, but the documents relating

thereto are of much the same kind. Doehle (*d*) found flagellates in the blood in the febrile period of the disease and three years later I described in primary, secondary and tertiary skin lesions (*e*) bodies resembling those that occur in vaccine lymph and variolous lesions”

“I do not hesitate to express the opinion that there is yet much to be done by means of the microscope : for instance in comparing cancerous with sarcomatous, syphilitic, variolous and other lesions : and in the comparative study of all of these with known protozoan infections.”
(*Medical Press and Circular*, March 11th, 1903, p. 235).

“Every parasitic form which occurs in vaccinia occurs also in cancer.” (*British Medical Journal*, July 5th, 1902, p. 54, see *Vaccn. Inqr.*, August, 1902, p. 87).

DRS. BARLOW AND ACLAND :—

“Calf lymph as now usually employed tends to produce more severe inflammatory reaction than that which has been humanised.” (*Min. Rept.*, *Roy. Com.*, par. 185.)

DR. NORMAN WALKER, ASSISTANT PHYSICIAN,
SKIN DEPARTMENT, ROYAL INFIRMARY,
EDINBURGH :—

“In the *Scottish Medical and Surgical Journal* (April, 1901), I published a short note, with an illustration, of a case of Erythema Multiforme closely resembling Smallpox. The difficulty of diagnosis was considerable, but we were greatly aided by the fact that the patient had been successfully vaccinated four weeks previously. It did not occur to me to connect the vaccination with the skin eruption. Since then four other cases have come

under my observation, all of them recently vaccinated, and all showing features which seem to make it certain that vaccination was casually related to the eruption. Curiously, with one exception, all occurred in persons more or less directly connected with the medical profession—doctors, students or nurses.” (*British Medical Journal, May 18th, 1901, V.I., 44-6-01*).

DR. REID, M.A., D.Sc.

“Had the names and addresses of a fair number of re-vaccinated persons who were suffering from Smallpox, one of whom had contracted the disease rather more than a month after having submitted for the second time to the ‘infallible preventive.’ He had sent five of these to the M.O.H.”

DR. CHALMERS, M.O.H., GLASGOW :—

“Confessed that during the past fortnight he had had under treatment no less than 39 re-vaccinated cases.” (*Fortnightly Report, M.O.H., Glasgow, Vaccn. Inquirer, May, 1901, p. 32.*)

DR. ROBERT KIRK, GLASGOW :—

“There can be little doubt that the sequelæ of vaccination led to acquired cretinism There seems to be no doubt that vaccinia of this character may readily become the parent of other evils if not promptly and judiciously treated at neither of the above meetings did I refer to this patient’s vaccination, this being a subject I reserved for further observation.” (*Lancet, 4th May, 1901*).

DR. FARQUHARSON, M.P. :—

“At present there was no guarantee that the

lymph was pure, and as a matter of fact there was a great deal of inefficient vaccination in Scotland now." *Vaccination Inquirer, August, 1896, p. 96.*

DR. DOBSON :—

“It is now being asked, not what is efficient as a life-long protection, but what is the minimum which will tide one over present needs? And, unfortunately, this is not an easy question to answer. The criteria of efficiency are very unsatisfactory. It may indeed be doubted whether we know what is the exact relationship between the vesicle and the disease.” (*The Hospital, December, 1901, see also Vaccn. Inqr., January, 1902, p. 175*).

DR. J. KINGSTON BARTON :—

“I have been particularly struck with the splendid marks (four and five large scars), many country-born patients carry on their arms, bearing witness, as Dr. Lovell Drage says, to the excellent vaccination of the much abused country public vaccinator. At the same time I have specially noticed the fact that by no means infrequently such markedly scarred arms take a great deal more severely in re-vaccination than many arms which have only one or two scars. I am therefore inclined to think that very large scars only indicate a greater tendency to take vaccinia (and therefore, presumably Smallpox) more readily rather than that they mean extra sufficiency of vaccination.” (*British Medical Journal, November 30th, 1901, V.I., 175-1-02.*)

DR. HOWARTH, DERBY :—

“The cases on the whole were of an exceptionally mild character. This tendency was

evident among the unvaccinated as well as among the vaccinated." "I observed modified Smallpox in three instances among unvaccinated persons." (66-7-05—*V.I.*)

DR. BOOBYER, M.O.H., NOTTINGHAM :—

"Not only mild, but modified, and to some extent, aborting Smallpox does undoubtedly occur in persons who are themselves unvaccinated." (*Vaccn. Inqr.*, 67-7-05).

DR. ALLEN WARNER :—

"A similar divergence from the type called natural Smallpox may occur in children who have never been vaccinated." (*Vaccn. Inqr.*, 67-7-05).

DR. SPENCER LOW :—

"The densely populated neighbourhood of Batley Carr has been but little attacked. The vaccination condition of this portion of the Borough, as far as the children at any rate are concerned is among the worst in Dewsbury." (*Report on the Dewsbury Epidemic, V.I., September, 1905, p. 121*).

DR. PEACOCK (ON NUNEATON SMALLPOX) :—

"The unvaccinated cases were not worse than those that had been vaccinated." (*V. Inquirer, p. 191, January, 1906.*)

DR. TATHAM :—

"The excess of mortality from meningitis and convulsions in North Wales is remarkable, for it is (excepting that in South Wales) the highest in the country, although the mortality from all causes is much below the average." (*Vaccn Inqr.*, October, 1903, p. 130.—The Editor adds :—There

is one division of the country which is so thoroughly vaccinated that it is not shaded at all It is no other than North Wales, where, according to Dr. Tatham, such a high infant mortality exists).—

DR. C. W. SALEEBY :—

“The well-defined and indisputable fact is this: that whilst the general death-rate has been lowered in an enormous degree, amounting to not much less than one-half during the last 60 years, the infantile mortality is a trifle higher now than it was in the early forties of last century.” (*Daily Chronicle, December 28th, 1905, see Vaccn. Inqr., 209-2-06*).

DR. J. H. CLARKE :—

“Vaccination scars are much more apt than ordinary scars to take on cheloid action. A cheloid is a scar tumour and is generally classed with malignant growth, as it is almost certain to return if cut out. The vaccinal taint is, in my experience, a prolific source of new growths.” (*Vaccination Inquirer, p. 57, 1905*).

DR. EDWARD J. EDWARDES, (LONDON) :—

“More adults now die of Smallpox in this country than before vaccination was brought into use by Jenner.” (*Vaccn. Inqr., 120-9-02—and B.M.S.*)

“It is painful to perceive that even amongst the educated classes in this country there is here and there strong opposition to vaccination as universally obligatory.” (*loc.*)

DR. A. J. RICE OXLEY, M.D., DUB. :—

“I recently vaccinated a gentleman with

exceedingly good results so far as the vaccination itself was concerned. The arm furnished an excellent instance of a 'good take.' The right knee, however, soon began to swell, and in the course of a few days the patient was not enjoying a well-developed synovitis of a curiously passive character. There was practically no pain or inflammation and as the patient had in no way injured the knee, and had never suffered from gout or rheumatism nor gave any history of rheumatic tendency, I was obliged to admit that in all probability the synovitis was the result of the vaccination. I should like to know if any of your readers have had a similar case." (*Lancet*, November 16th, 1901, also V.I., 170-12-01).

DR. J. C. HIBBERT, 51-6-05. :—

"I could not detect that vaccination or re-vaccination, when performed after the Smallpox eruption had appeared had definitely any modifying influence on the rash or on the course of the disease." (*Lancet*, 20th May, 1905).

DR. J. T. C. NASH (SOUTHEND) :—

"There is no such thing as absolute immunity"
 "It must not be overlooked that Smallpox may occur in a person supposed to be, and certified as, recently re-vaccinated. Such a case has come under my observation, but inquiries made of the certifying practitioner as to the age and quality of the lymph used elicited no reply, and judgment must go by default in the matter
 No lymph should be used which has not the seal of Government approval.
 In so important a matter it should be made an impossibility for a person to be defrauded or placed under a false sense of

security. (*Brit. Med. Journal, and Manchester Guardian*,—see also *Vaccn. Inquirer, September, 1902, p. 120*).

DR. T. D. ACLAND :—

“Vaccination as practised was open to two main objections: (1) that the necessity for causing a local sore created a point of great vulnerability to the individual vaccinated, and formed a possible starting point for various inflammatory complications. (2) That it created a certain amount of opposition, since in the homes of the poor a vaccinated child imposed a burden on the often overworked mother which was hardly realised by those who had no practical acquaintance with the facts: the gain to the community was impersonal and remote, while the sick child was a present and very real source of anxiety and difficulty.” (*Discussion on Dr. Copeman's paper on Vaccination before the Royal Medical and Chirurgical Society, on January 14th, see Vaccn. Inqr., February, 1902, p. 209*).

DR. GEORGE WILSON, M.A., L.L.D., M.O.H.,
FOR MID-WARWICKSHIRE :

“Pasteur's antirabic vaccination is a delusion : Koch's tuberculin cure is worse than useless : the much vaunted anti-toxin for diphtheria does not command the universal approval of even the physicians of the Metropolitan Fever Hospitals the serums used for the treatment of other diseases are all of them allowed to slip into the lap of forgetfulness.”
. . . . “Bacteriology has led us on false lines.” “Behring has patented his diphtheria antitoxic serum.”
“Koch has for years made a princely royalty out

of his tuberculin." (*British Medical Journal*, August 5th, 1899, *Vaccn. Inqr.*, September, 1899, p. 65).

DR. ROBINSON, (PUBLIC VACCINATOR) BIRMINGHAM :—

"The members of the commission deserve to be sentenced to seven years' penal servitude for spending money and coming out with such a weak-kneed report They have adopted all the suggestions which had been made by someone having an interest in calf-lymph There is no animal more subject to tubercular disease than a cow."
Vaccn. Inquirer, March, 1898, p. 162).

DR. MAYO :—

WHY IT CAN'T BE SMALLPOX !

"In Salt Lake City there is, or was a few weeks ago, an epidemic of Smallpox, or what everybody supposed to be Smallpox. The Board of Health treated it as Smallpox, and in their foolish panic took the tyrannical step of excluding un-vaccinated children from the schools. The Supreme Court upheld their action although one dissenting judge, Justice Baskin, did not concur in the judgment. He said the action of the Board was an attempt indirectly to make vaccination compulsory, and this could not be done either directly or indirectly without explicit authority from the legislature. A sound judgment, but overborne unfortunately by that of the other justices. It goes to show, however, the strength of the belief in Utah that the State was in the presence of a Smallpox epidemic. The quarantine medical officer, however, has startled a meeting of the Salt Lake County Medical Society by a

declaration that he does not believe it to be Smallpox at all. Among his reasons the following are certain to amuse our English anti-vaccinators :—

“First, this honest doctor (his name is Mayo) finds that in this epidemic the vaccinated and un-vaccinated are suffering alike. He has had no experience of Smallpox, but he knows it to be the opinion of the authorities that ‘in an epidemic of Smallpox the vaccinated are protected, though in some cases they may contract a severe type of the disease and even die.’”

“Secondly, Dr. Mayo finds that those who have had the prevailing disease can be successfully vaccinated, and it has been generally accepted that the Smallpox immune cannot be successfully vaccinated. Dr. Mayo appears to have tried experiments instead of generally accepting other people’s conclusions.”

“Thirdly, Dr. Mayo cannot make Welch’s rule of classification fit the present case. It is worth while setting out Welch’s classification. It is very like what we have always held to be the rule followed by the bulk of the medical profession in this country.”

Here is

WELCH’S CLASSIFICATION.

“It has been my rule to classify as variola all unvaccinated cases, all malignant cases, and all vaccinated cases in which the eruption pursues its regular course and is attended by secondary fever; while I classify as varioloid all vaccinated cases in which the eruption is markedly abridged in its course and in which there is little, if any, secondary rise in temperature.”

“Says Dr. Mayo, plaintively, “It is very difficult to make this rule fit the present disease.

Thirty-two of my cases have not been vaccinated, none had a truly secondary fever, none were malignant. And I number among the eight vaccinated at least two that were as severe as any cases I saw. Of those that were unvaccinated the majority were of an exceedingly mild type, in some cases only four or five pustules appearing."

"Fourthly, this innocent doctor, bless his soul, could not give the calves the Smallpox."

"Says he, 'On March 30th, I inoculated two calves at the Ewing ranch with pus and scabs taken directly from a patient at the quarantine hospital. My results were negative. Should I not have produced cow-pox if the scabs were Smallpox virus?'"

"Another doctor taking part in the discussion said, 'The other day I was in Spokane and they told me they had 60 cases of so-called Smallpox. Two of them had recently been vaccinated, and the disease with them was identical with those who had not been vaccinated. There was no modification whatever. This doctor also must have had a difficulty in applying 'Welch's qualification.'" And yet nothing can be simpler. The cases not vaccinated should have been called 'variola,' the cases vaccinated should have been called 'varioid.'" "

"In England when the vaccination does not respond to expectations, the fashion is to say it was not a successful vaccination—an obvious fact."

"In Utah, if vaccination makes no difference, they say it was not Smallpox. Well, perhaps it was not Smallpox. We are not committing ourselves to an opinion, but what pleases us is the train of reasoning which abolishes Smallpox. If

we only had Dr. Mayo here!" (*Vaccination Inquirer, July, 1900*).

The Great Epidemic of the 19th Century.

EXTRACT FROM "THE LANCET," JULY 15th, 1871.

"It would be well for the profession to study carefully the statistics of the Smallpox epidemic, and take to itself some of the lessons they contain. For the first time since the introduction of vaccination, the deaths from Smallpox have assumed the proportions of a plague. Over 10,000 lives have been sacrificed during the present year in England and Wales; whilst Scotland and Ireland have, comparatively speaking, escaped. In London, 5641 persons have died of Smallpox since the beginning of the year. Notwithstanding this fearful lesson, so great is the apathy of the public, and so imperfect are the arrangements for securing general vaccination, that of 34 children admitted into the Stockwell Hospital during the last fortnight, only 2 were vaccinated, and of the 32 not vaccinated, 16 have already died; whilst a visit to the public vaccination stations shows that the panic which existed at the beginning of the year has completely subsided, that at some the supply of infants is below the average and barely sufficient to secure an adequate and regular supply of lymph, and that, practically speaking, no re-vaccinations are being done. Now it is evident that, if the epidemic is to cease, the public must be aroused from this apathetic state; and the question is—How can this be done? We may certainly answer that it will not be accomplished by diminishing the number of medical men directly interested in public vaccination. We want to increase, not diminish, the number of agents interested in promulgating sound views. Every

additional public vaccinator who can be made to use his personal and professional influence in favour of vaccination, is a true friend to the State; and we are of opinion that all secondary machinery, whether legislative or otherwise, is as nothing compared with the power over the public mind which may be exerted by the whole profession if the medical body really puts forth its influence. It is to the formation of a healthy public opinion on the subject of vaccination that we must look for the most complete success; and it is for the purpose of increasing as far as possible the number of apostles of vaccination that we have proposed that every medical practitioner who can show that he has vaccinated 150 children in the year from arm to arm, and who expresses his willingness to submit to the inspection of his work by the officers appointed by the Privy Council, should be made a public vaccinator. We want to enlist the spirit of emulation and competition in the work; and we believe that this will be far more effectual than any theoretical views as to the population and size of districts attached to public stations, and more certain of exercising a good influence on public opinion than the restrictive system which is now in force."

"But there are other facts which the profession will need to take to heart. Much of the neglect of vaccination may indeed be due to public apathy and defective administration; but let us seriously inquire how far that apathy has been increased by the defective way in which the operation has been done. Let us look at the facts. Of 9392 patients who have been admitted into the Smallpox Hospitals under the management of the Metropolitan Asylum Board, no less than 6854 had been vaccinated—that is, nearly 73 per cent.

Taking the mortality from Smallpox at 17·5 per cent. of those attacked, and the deaths this year in the whole country at 10,000, it will follow that more than 122,000 vaccinated persons have suffered from Smallpox. Now the question is, do these facts represent the legitimate expectations of the profession upon the subject? Knowing as we do the comparatively high protective power of vaccination, and the all but complete protective power of re-vaccination, ought we to be satisfied with this alarming state of things? Can we greatly wonder that the opponents of vaccination should point to such statistics as an evidence of the failure of the system? Nay, further, can we wonder that the Government should be dissatisfied, and seek by administrative changes to effect an alteration? It is necessary to speak plainly on this important matter, for we believe that the unpopularity of vaccination and the mischievous alterations which have recently been made in the administrative machinery are due to the careless and defective manner in which the operation has been performed, rather than to any disbelief of its intrinsic value. It is for the profession itself to remedy this unfortunate state of things. Greater attention must be given to the teaching of vaccination in the schools. We must no longer treat the operation as one which may be left to apprentices and careless assistants. We must not be satisfied with small and imperfect vesicles. We must vaccinate over a considerable surface and repeat the operation whenever there is the smallest deviation from the normal course. It is by such means that we shall increase the protective power of vaccination; and we should rejoice in seeing a larger number of public vaccinators, were it only with the object of bringing more of them under

the wholesome education of the inspectors of the Privy Council. And the consequences of more complete protection will show themselves in an augmented public confidence, in a better tone towards public vaccinators, and in a less grudging remuneration of their important work. We are speaking generally, not less in the interest of the profession than of the public, when we say that we hope there will be more care in securing the full protective influence which vaccination can certainly bestow.

THE FRENCH AND GERMAN ARMY FABLE.

IS IT STILL RUNNING ?

ORIGIN OF THE 23,469 STATISTIC.

This famous statistic appeared in the *British Medical Journal* of 1872 in this fashion :—

The Results of Re-vaccination :—According to a statement made at the statistical congress held this year in St. Petersburg, the total number of deaths from Small-pox in the German Army during the recent Franco-German War was 263. This small mortality is attributed to the system of compulsory vaccination which every man who enters the army must undergo. On the other hand, in the French Army where vaccination is not compulsory, the number of deaths as stated by a French authority, was 23,469. This terrible difference (says the *Wiener Medizinische Wochenschrift*) must puzzle the greatest opponents of vaccination.

The paragraph was reprinted in Mr Pickering's *Anti-Vaccinator* of November 1st, 1872, with

various instructive comments. It was shown that the French Army was completely re-vaccinated; and if, notwithstanding, 23,469 fell victims to Smallpox, no more conclusive proof could be desired of the uselessness of vaccination and re-vaccination.

The vaccine party have used this 23,469 to an endless extent for the past ten years, and yet not one of them has taken pains to inquire whether the anonymous statement in an Austrian Medical Journal was true! It re-appeared in the British Medical Journal of June 23rd last. In the memorandum of the British Medical Association, distributed among M.P's in anticipation of Mr. Taylor's motion, it was given thus:—

Total deaths from Smallpox in German Army where re-vaccination was vigorously enforced, 263; in the French Army where re-vaccination was neglected 23,469. — Of Colin: *La Variole*.

Referring to Colin, there is not a word in his book about the 23,469! Dr. Colin knows that the figures are fictitious, and, we learn, is amazed that Dr. Carpenter first, and Sir Lyon Playfair second, should cite his authority for the absurdity.

We cannot trace the fabulous figures prior to their appearance in the paragraph of the Austrian Journal adduced, which might be varied thus:—

One day at St. Petersburg in 1872 somebody said that some French Authority said that France lost 23,469 soldiers by Smallpox in 1870-71, because they were not re-vaccinated. (*Vaccn. Inqr, Vol. 5., p. 105.*)

“ Dr. W. B. Carpenter printed a letter to the Right Hon. Sir Lyon Playfair, dated April 23rd, copies of which were furnished to members of the House of Commons. He says in this letter, ‘ To

the evidence of the protection afforded by re-vaccination which I have given elsewhere, I now add the following, the cogency of which can scarcely be overestimated :—

In Germany, vaccination is compulsory in children under a year old and every man on his entrance into the army is re-vaccinated. In France, on the other hand, vaccination is not compulsory, and re-vaccination is not enforced on army recruits. During the Franco-German War of 1870-1 the total number of Smallpox deaths in the German Army was 263, while in the French Army it was 23,649.'

And Dr. Carpenter adds, ' what reason is there to doubt that the adoption of compulsory re-vaccination in the French Army would have saved a large proportion of the 23,469 ? ' "

In a subsequent letter he says " The French Army was re-vaccinated up to July 1870, when the war began."

And in a letter to the *Daily News* reprinted in *Health* for June 1st, he says :—

I would ask to set the public right upon an important matter, as to which the reiterated assertions of the anti-vaccinators can be disproved on the very highest authority. In my recent letter to Dr. Playfair I cited the very small proportion of deaths from Smallpox in the German Army, as compared with the enormous losses of the French un-revaccinated Army during the same period. My opponents affirm that the high Smallpox mortality of the French Army could not have been due to the want of re-vaccination, since it had been entirely re-vaccinated before the war, and the regulations required that every fresh

recruit should be re-vaccinated on his entrance into the service. Now this statement is perfectly true of the original French Army, and the good effect of its re-vaccination was shown by the almost complete immunity of the large body of troops in and around Paris from the malignant epidemic which broke out in its civil population in the early part of 1870; but the original French Army was annihilated, and its place supplied by new levies. Doubtless, according to the regulations, all such recruits should have been re-vaccinated, but the simple fact is that time, opportunity, and vaccine lymph being alike wanting, they were not: the result of which was that there were 23,469 deaths from Smallpox in this new Army. I make these statements (continues Dr. Carpenter), not upon hearsay evidence or reports of private correspondents, but upon the official account published in 1873 by Dr. Colin, then *Médecin Principal de l' Armée*. His treatise, "*La Variole*" is easily obtainable by anyone who wishes to know the real truth of this matter: and from its full and explicit details of the facts of this remarkable case, I cannot see what higher appeal can be made." (*Vaccn. Inqr. Vol. 5. p. 101*).

DR. W. B. CARPENTER'S RETRACTION
IN 1883.

SMALLPOX STATISTICS.

FROM "THE DAILY NEWS," AUGUST 7TH, 1883.

To the Editor of "The Daily News."

SIR,

The House of Commons having unmistakably settled for the present the question of compulsory vaccination. I should not trouble you with any further communication on the subject if it had not been that I feel bound to make public what has recently come to my knowledge in regard to the number of Smallpox deaths (23,469) alleged to have occurred in the French Army during the war of 1870-1871, which I stated in my letter to Sir Lyon Playfair, on authority which I had every reason to believe to be good. That statement was published in this country in the 'British Medical Journal' in 1872, as contained in a communication made to the International Medical Congress which had recently met in St. Petersburg. It was cited as authentic, *i.e.*, based on official returns, not only in various journals and other publications on the subject, but also in an official report upon anti-vaccination petitions made to a committee of the Reichstag by Dr. Thilenius, who referred to Dr. Roth as the authority for it. As far as I knew the number had never been disproved, and I could not suppose that a statement of such importance should have been made to the International Statistical Congress, and should have been adopted in Germany by an official

reporter without an adequate basis.

The allegation of the anti-vaccinationists, as I stated in my letter to you on May 8th, was that as every soldier in the French Army—no less than in the German Army—had been re-vaccinated, the contrast between the Smallpox mortality of the two armies (23,469 as against 263) could have nothing to do with re-vaccination, but was due to the relative sanitary conditions of the two armies, and this as your readers will recollect was the position maintained by Mr. A. P. Taylor in his reply to that letter. It was to meet this allegation that I cited the authoritative testimony of Dr. Colin published in 1872, to the effect that the new levies hastily raised during the war had not been re-vaccinated, and I placed Dr. Colin's book in the hands of Sir Lyon Playfair to enable him to meet that allegation when raised (as he expected it would be) in the debate then ensuing. I never thought of quoting Dr. Colin as an authority for the figures, which I had stated before I named him, to be "not disputed by my opponents," and I am surprised that any reader of my letter should suppose me to have done so. In the authorised report of Sir Lyon Playfair's speech it is made perfectly clear that he also cited Dr. Colin as his authority for the Non re-vaccination of the new levies, not for the figures, which he had adopted from the letter I addressed to him, of which copies had been forwarded also to Messrs. P. A. Taylor and Hopwood. The authority for the figures having been subsequently called in question, and an application to Dr. Colin having elicited from him the reply that he had no exact return of the total number of Smallpox deaths in the French Army, I requested Earl Granville to obtain what information he could on this point; and after

considerable delay I have received through Colonel Cameron (military attache to the Embassy in Paris) an explicit statement that the army medical returns of the Franco-German war are so incomplete as not to supply the total for which I asked.

There can be no doubt, however, that this total was very large. Dr. Colin estimates at 1,600 the number of Smallpox deaths in the garrison of Paris alone, and he contrasts this with the fact that among several hundred German prisoners (whose sanitary conditions was assuredly no better than that of the French soldiers) there was not a single case of undoubted Smallpox, only one man being affected with a slight rash of questionable nature. The fact that Smallpox was very prevalent among the newly raised French armies at various points at which they came in contact with the German, was notorious at the time, and has since been referred to in many German publications. The following for example is given by Lotz (*Pocken und vaxin*) is the relative mortality per 10,000 of the Prussian Army, and that of the French garrison of 15,000 men at Langres, the former during 12 months from July, 1870, to June, 1871, the latter only from September, 1870, to March, 1871 :—

	PRUSSIAN ARMY.		FRENCH GARRISON.
Smallpox ...	5·8	...	222·6
Dysentery ...	32·3	...	19·3
Enteric Fever	118·8	...	80·0

It is clear, therefore, that although the total number of Smallpox deaths in the French Army may have been over stated, it bore enormous disproportion to that of the German Army. If in adopting Dr. Roth's estimate of it, without any suspicion of its insecure basis, I have been blame-

worthy, I now make the fullest amende in my power. The fact remains that the anti-vaccination journals have been repeating for years past a misstatement in regard to the re-vaccination of every soldier in the French Army, which the highest authority had publicly corrected (by anticipation) in 1872. It must be remembered that this case bears only on the question of re-vaccination. The body of testimony not having productive evidence of vaccination, so ably marshalled by Sir Lyon Playfair and Sir Charles Dilke rests on an entirely different basis to that of our own registration reports and similar official reports from other countries. It may fairly be expected that those who cite these returns should do so with care and accuracy. And yet Mr. P. A. Taylor in replying to me last year, made the Smallpox mortality of England during the quinquennium 1875-79, more than four times as great as it really was, adopting at second hand the number, which a glance at the Registrar General's Report would have shown to be inaccurate; his explanation of the error being that the late Dr. C. Pearce, who had supplied him with his figures, had given him the number of deaths from measles, instead of the Smallpox mortality for that period. I cannot think, therefore, that if I have erred in adopting without sufficient authority a statement which had every appearance of being trustworthy, my opponents should remember that they too are fallible.

I remain, Sir,

Your obedient servant,

W. B. CARPENTER.

THE FAIRY-TALE RETOLD.

DR. H. BRANTHWAITE, F.R.C.S., EDINBURGH,
M. O. H. FOR WILLESDEN, IN A DEBATE WITH
ALFRED MILNES ESQ, M.A., F.S.S. :—

“By comparing the comparative immunity of the German with that of the French Army during the Franco-Prussian War, the total deaths from Smallpox in the German Army, where re-vaccination was rigorously enforced, was 263: while the French Army, where vaccination was neglected, † had a loss of 23,469 men. This could not be because they were Germans, seeing that Smallpox was epidemic in Berlin during 1871, and was nearly as fatal to the civil population, as it was in Paris during the siege.”—† Appendix Note E. Note E. p. 10.—“*The French Army where vaccination was neglected.*” It was not neglected. “Every recruit, on joining the French Army is vaccinated or re-vaccinated. Our Army knows no exception.”—*Dr. Bayard. (Is Vaccination Desirable p. 10 and p. 34. E. W. Allen).*

THE FABLE RESUSCITATED 1897.

THE BRITISH MEDICAL JOURNAL, 19th JUNE, 1897.

“Such, in brief, is the history of vaccination legislation in this country: of the benefits which it has wrought it is difficult to speak in measured terms. In 1838 the population of London was $1\frac{3}{4}$ million, and the mortality from Smallpox over 3,800; in 1889 the population was nearly $4\frac{1}{4}$ millions and the mortality absolutely *nil*. During the five years 1887-91 only 30 deaths from Smallpox occurred in London. Within the last few years, however, those who never knew the disease

as the universal scourge it once was, and who are consequently in no position to appreciate the benefits of vaccination, have neglected and even decried this precaution. As an inevitable result has come a recrudescence of the malady, with its sharp lessons for all who are not impervious to facts. On the Continent, and particularly in Germany, the salutary influence of vaccination, and especially of re-vaccination, has been much better appreciated. In the celebrations attending the Jenner Centenary Professor Gerhardt was able to point out that during the Franco-German War, of 1½ million German Soldiers but 49 died of Smallpox, while the much less thoroughly vaccinated French Army lost 23,400 lives from the disease." (*Passage from article entitled "Sixty years of vaccination."*—p. 1644.—*British Medical Journal, June 19th, 1897.*)

AN OVER-WORKED FALSEHOOD.

The *Echo* of July 13th says:—"We call particular attention to a letter in our correspondence column to-day by Mr. William Tebb. The letter explodes a fable, and, though exploded to-day, it will, no doubt, be renewed again and again by the defenders of compulsory vaccination. We remember hearing Dr. Lyon Playfair make the statement referred to, and which has been made hundreds of times since by Dr. Drysdale and others, and which judging from past experience, will be cited other hundreds of times in the future. But the statement in reference to Smallpox and vaccination in the German and French Armies, and which has done so much to prop up compulsory vaccination, had, it appears, no foundation in fact."

The letter to which this particular attention is drawn is as follows :—

AN EXPLODED VACCINE FABLE. FALSE FIGURES.
To the Editor of the Echo.

SIR,

The revival of a notorious vaccine statistic in the *British Medical Journal* of the 19th June must be my excuse for inviting the readers of the *Echo* to a brief history of perhaps the most remarkable of the many fables invented by the advocates of vaccination to bolster up the Jennerian dogma. The statistic first appeared in England in 1872, in the *British Medical Journal*, in a paragraph, stating that in the German Army, where re-vaccination was compulsory and vigorously carried out, the mortality during the Franco-German War of 1870-71 was only 260 in the German Army, whereas in the French Army, (where re-vaccination, it is erroneously stated, was not compulsory) Smallpox reached the enormous total of 23,469.

In the recent article of the 19th June the German Smallpox mortality had dwindled to 49 and that of the French Army is given as 23,400.

The former figures were brought forward by Dr. Playfair, now Lord Playfair, during the debate on Vaccination in Parliament on the 19th June, 1883, and received by that body, as a crushing proof of its efficacy, with enthusiastic acclamations.

In answer to a pertinent question by Mr. P. A. Taylor, Lord Playfair, holding up Dr. Leon Colin's book, replied "I got it from the Physician-General to the French Army." This statement was subsequently shown to be untrue, as the figures are not in the Book referred to.

The late Dr. W. B. Carpenter, who had done

much to disseminate the Franco-German statistic, was challenged to substantiate the figures, applied to the French Government, and received, through Earl Granville, a reply stating that the figures were unknown. He then, to his credit, made the *amende honorable* in the 'Daily News' of August 7th, 1883. The German vaccination authorities also, in a letter to Mr. George Gibbs, of Darlington, denied the existence of alleged German statistics.

These figures have probably done more to keep the vaccination delusion afloat than any other of the pretentious facts at the disposal of the vaccine propagandists; and, although proved to be devoid of foundation, they are still used by them when occasion is afforded.

(Signed) WILLIAM TEBB.

REDE HALL, BURSTON, SURREY, JULY 9TH.

(See *Vaccination Inquirer*, August, 1897, p.p. 71-72).

A QUALIFICATION.

"THE BRITISH MEDICAL JOURNAL," JULY 31ST,
1897.

"Smallpox in German and French Armies. Our attention has been called to a letter in the 'Kilmarnock Herald' by Mr. William Tebb, in which he speaks of 'the revival of vaccine statistic in the 'British Medical Journal' of June 19th' The writer of the article referred to gave the figures for the two armies as stated by Professor Gerhardt Naturally in the case of a great war, quite exact statistics are difficult to get, It happens that the Royal Commission on vaccination deals with this question. Here is the Commissioners'

Report on the subject.”—

“ 347. A comparison of the mode in which the very general Smallpox epidemic of 1870-71 affected the German and French Armies in those years is especially worthy of attention. In the year 1834 vaccination was made compulsory for soldiers in the Prussian Army. Although it may not have been enforced with complete thoroughness there seems to be no doubt that the German Army was, on the whole, a well-vaccinated class at the time of the campaign of 1870-71. We do not think that there can be any real doubt that the French Army, was, during the same period, in a condition in that respect, less satisfactory. According to the official returns, the number of Smallpox deaths in the German forces during the years in question was only 316. It was stated by M. de Freycinet, the Minister of War, that 23,400 French soldiers died of Smallpox during the years 1870-71. We have not been able clearly to ascertain how these last figures were procured. They were not derived directly from any official return. It would seem that the average derived from a limited number of returns relating to particular portions of the Army, was applied to the Army as a whole. It is quite possible, therefore, that the figures given may not be accurate, and that the number stated is in excess of the real number of deaths: but we do not think it is possible to doubt that the ravages of Smallpox in the French Army were very great, and that the mortality was enormously in excess of that suffered by the force which was opposed to them.” (*Notes, letters, &c.. British Medical Journal, July 31st, 1897, p. 323*).

For the convenience and guidance of those who may honour these pages with perusal, the

Compiler appends a further and contiguous excerpt from the Final Report of the R.C.V. which will make comparisons a little clearer and more just perhaps: yet even this table from R.C.V. Report should be accompanied with a similar list of vaccinal deaths and injuries to enable a correct balance to be struck.

“ Par 348. Information of great importance is derived from an observation of the apparent effect of the law which was passed in Prussia in the year 1874 making re-vaccination compulsory. Since that period Smallpox mortality in that country has been reduced to proportions quite insignificant as compared with any previous epoch. It is instructive in this connection to compare the deaths from Smallpox per 100,000 of the population in Prussia and Austria. The deaths do not, of course, correspond year by year; sometimes they are higher in one country than in the other, and upon the whole the mortality shown is greater in the case of Austria than of Prussia, but in the period prior to 1874, there is no contrast to be found such as is observable since that year. The figures for 1874 and for some years prior and subsequent to that date are worth placing side by side.

	PRUSSIA	AUSTRIA
1862	21·06	31·14
1863	33·80	53·10
1864	46·25	84·78
1865	43·78	45·53
1866	62·00	36·85
1867	43·17	74·08
1868	18·81	33·27
1869	19·42	35·18
1870	17·52	30·30
1871	243·21	39·28

	PRUSSIA	AUSTRIA
1872	262·37	189·93
1873	35·65	323·36
1874	9·52	178·19
1875	3·60	57·73
1876	3·14	39·28
1877	0·34	53·18
1878	0·71	60·59
1879	1·26	50·83
1880	2·60	64·31
1881	3·62	82·67

DENIED, DISPROVED AND DISOWNED
ONCE MORE.

1899.

VACCINATION INQUIRER, MARCH, 1899, p 150-155.

We make this month another effort, a despairing one, we admit, to slay the immortal falsehood about the French and German armies. For the recent recrudescence of this gigantic lie the Christian Knowledge Society is chiefly responsible. Mr. Rider Haggard and Mrs. Garrett Anderson have been active propagators of it ; but the former has frankly, and the latter grudgingly, withdrawn it in the columns of the *Star*, just as we are on the point of going to press. We are of course told that they accepted it in good faith, that they had no wish to propagate falsehood, and so on. And of course we accept the assertion. But that is not quite the point. We heard Mrs. Anderson narrate the fable at Toynbee Hall ; and nothing could have been more impudently confident than the air with which she told this baseless story, or more coolly contemptuous than the manner in which she pooh-poohed our own contradiction of it. But what, we could ask, can Mrs. Anderson

have known of the history of vaccination controversy for the last twenty years if she did not know of the exposure of this tale? The words, so wise and weighty, of John Stuart Mill rang in our ears that night, "He that knows only his own side of the question, knows little of that." Mrs. Anderson pleads that she had "missed it" in the Commission's Sixth Report. But she can have read simply nothing on our side of the question, or she could not have been ignorant of the character of a statement which has been exposed hundreds of times in our literature.

How, we wonder, does it come to pass that vaccination should be one of those subjects on which persons presume to teach who cannot possibly have given twenty-four hours of serious study to it?

THE LIFE-HISTORY OF A WONDROUS LIE.

In the *Daily News* of February 22nd we read:—

Apropos of Mr. Rider Haggard's revival of the often contradicted statement that in 1870-71 the French army lost 23,469 soldiers from Smallpox while the German army only lost 459, Dr. Francis Bond writes that the Jenner Society, anxious to clear up this disputed question, so far as it is possible to do so, took steps to obtain from the French Government the most recent information in regard to it, and through the courtesy of the Marquis of Salisbury, received the following official statement on the subject:—

In consequence of the absence of all medical statistics for the years 1870-71, it has not been

possible to establish precise figures even for the general mortality, and still less for that of special diseases, during that period. The number, 23,400, Smallpox deaths attributed to our troops by various authorities, and quoted in authoritative publications, can only be looked on as a provisional assumption. It has been a special object of the Technical Committee of Health recently to endeavour to discover by a searching enquiry the true value of this estimate, and it has arrived at the conclusion that it is greatly in excess of the reality. The principal variolous centres available for calculation were, in Germany, amongst the prisoners of war, with 1,963 deaths; at Paris (army of Paris), with 1,350 deaths; at Mans (army of the Loire), with 469 deaths; at Belfort (siege), 300 deaths; at Langres, with 334 deaths; at Poitiers, with 270 deaths; at Metz (siege), with 172 deaths. Taking into account with these deaths those of various little garrisons, it is estimated that the total number of deaths caused by Smallpox in the whole French army for the period referred to does not exceed 6,000.

And Mr. Rider Haggard, who seems to be a straightforward opponent, albeit an ill-informed one, also frankly admits his error in a communication to the *East Anglican Daily Times*, thus:—

To the Editor.

SIR,—I have much pleasure in acceding to the request of Mr. J. T. Wiles, and in acknowledging that the figures as regards the number of French soldiers who died of Smallpox in the Franco-German war, quoted by me the other day, are erroneous.

What really happened was that I read these

figures, together with other statistics, from a leaflet, the accuracy of which I too readily took for granted. I regret that this should have chanced, and also that such leaflets should be set as a trap for the unwary, who have no means of checking the statistics they contain.

The history of this story, so far as I have been able to trace it during the last few days, is not without interest. It would appear—I speak without guarantee and subject to correction—that M. de Freycinet was originally responsible for it. Then Lord Playfair, falling into the same error as myself, repeated it in Parliament, and afterwards withdrew the statement, as did Dr. Carpenter and various other people. Since then it has been made use of in Parliamentary debates, and up to the present time widely disseminated in leaflets, from one of which I was so guileless as to read. I am credibly informed that the real number of French soldiers who died from Smallpox during the Franco-German war was somewhere about six thousand—even so, a sufficient total.—I am,
etc., H. RIDER HAGGARD.

Ditchingham House,

February 21st, 1899.

In spite of these withdrawals we trust that none of our friends will be so sanguine as to believe that they have heard the last of this remarkable falsehood. It is far too impressive and too useful; and it will always be resuscitated whenever a vaccinist finds himself hard bested for argument, and face to face with an audience which has not access to original authorities.

It is curious and highly typical that not even in their retractions can the Jennerists get hold of the real facts of the case; and that they repent even as they sin, ignorantly. Dr. Bond might have

spared himself and Lord Salisbury the trouble of reiterating enquiries already three times made, and fully recorded in published documents which are accessible, and should be known, to the Jenner Society, if that self-estimable association had any real knowledge of the subject it presumes to teach. For the history of this very wonderful fable is patent to anyone who cares to take the trouble to investigate it, and is strange enough and interesting enough to be told as we propose here to tell it, once for all.

Like most myths the actual origin is lost in obscurity ; and M. de Freycinet was by no means "originally" responsible for it, as alleged by Mr. Haggard in invincible ignorance. Where it actually began no man can tell for certain. But it seems probable that in the city of St. Petersburg, some time in 1872, a semi-private society of medical men heard a paper read by one of their number, in which he calculated, from what may have seemed to him satisfactory data, that the Smallpox death roll of the French army during the war had amounted to 23,469, as against a similar loss on the German side of only 263. We do not profess to give this origin as having been ascertained on any really solid authority. But in 1872 it is certain that the *British Medical Journal* asserted that the statement had been communicated to the International Medical Congress which had recently met in St. Petersburg ; and it is quite possible that this may have been the first time the comedy had been put on any stage. The statement was obviously too "crushing" to be allowed to rust in idleness ; and the pro-vaccinist press—and in those days there was very little press that was not pro-vaccinist—spread it all over the world. And

various papers secured their various victims. The *British Medical* caught the late Dr. W. B. Carpenter. And when it became known that our lamented leader, Mr. Peter Taylor, was going to move a resolution in the House of Commons against compulsory vaccination, Dr. Carpenter rushed into the fray with an open letter to Sir Lyon Playfair. This letter, in which Dr. Carpenter "coached" Sir Lyon for the coming debate, was printed and distributed to every member of the House, on what was expected to be the eve of the debate, though a delay of a day or two interposed an unexpected interval. The debate came off on June 19th, 1883, and in the course of it, Sir Lyon quoted from Dr. Carpenter's letter the 23,469 and the 263, with tremendous effect. Challenged by one or two voices as to the authority for the figures, Sir Lyon held up a book, Dr. Léon Colin's "La Variole," (smallpox) saying, "I got it out of here"; and the cheering was renewed. But the simple answer was that he did nothing of the kind, for the book never contained a word about it. After the debate and the division—a division which the *Times* confidently predicted had disposed of the anti-vaccinist heresy for ever—Sir Lyon was again challenged by our friends as to his authority; and was compelled to admit that he had none other than Dr. Carpenter's letter. This changed the venue; and Mr. Alexander Wheeler tackled Dr. Carpenter on the subject. Dr. Carpenter approached Earl Granville, then Foreign Secretary, and procured his aid in making inquiries in France. As a result Dr. Carpenter published in the *Daily News* of August 7th, 1883, a full retraction of the figures, admitting they were without assignable official authority. But by this date the fame of the great Parliamen-

tary debate, and the comments of the *Times*, and the other English papers, had spread the story into every corner of the habitable globe, and it came back to us in newspaper cuttings from every clime. What truth could do against falsehood was done. A poverty-stricken contradiction limped by post after the wealthy lie that travelled by telegraph, and slowly hunted it down, and drove it to its earth. So that by about 1887 we began to cease to hear of it, and even regarded it as dead.

Meantime, M. de Freycinet, French War Minister, had in 1882, issued a memorandum on the Hygiene of the Army, in which, with an almost inconceivable recklessness, he reproduced, from the *Wiener medicinische Wochenschrift* of 1872, the statement of the "23,400" Smallpox deaths in the army during the war. That a French War Minister should have taken such a statement from an Austrian newspaper, and uttered it without a moment's investigation, to the discredit of his own country's army, seems all but incredible. Yet he did so; and the document containing the statement in the original French can be read in the appendix to the Commission's Sixth Report, (p. 726). How it comes to be printed there we shall see in a moment. But we must here note that this memorandum supplied the falsehood with a new start, and a most powerful one. For people said the statement must be true, for here it is, printed over the signature of the French War Minister. Yet it had no more authority than any statement made (e.g.) by our own President of the Local Government Board from his place in Parliament.

Next comes the Royal Commission appointed in 1889, it was not long before it was favoured

with the evidence of Mr. Hopkirk, who narrated once more the story of the 23,469 and the 263. Challenged for authority, he could give none, for the best of all reasons, to wit, that there was none to give. But he persisted in asserting that the figures were official. To settle this point the Commission, through Lord Salisbury, sought information in Paris; and Lord Lytton, replying under date November 14th, 1889, enclosed M. de Freycinet's memorandum. This was accompanied by other documents, and by a letter in reply to certain queries inspired by the Commission. Amongst other matters in this reply we find—"The only statistics procurable are contained in the Report on Vaccination, by Dr. Proust, 1889." Now turning to this work, we find on page 47, a graphical table of the "Deaths from Smallpox in the French Army from 1863 to 1869, and 1872 to 1887." There is thus a gap—the years 1870 and 1871 not being accounted for. This is explained in the note at the foot of the table, which says that for these two years there are no medical statistics extant. And to make quite sure, Dr. Collins wrote to M. de Freycinet, and received in reply a letter from Dr. Jeunhomme who admitted that the *Wiener medicincische Wochenschrift* was the authority, that that paper claimed to have taken the statement from French documents; but that no official documents of the kind were in existence. There the matter ended so far as the Commission was concerned. And once again the falsehood seemed slain. But this time we reckoned without the Christian Knowledge Society.

In a pamphlet issued by that Society for the Prevention (on this subject) of any Knowledge at all, Christian or otherwise, and written by

Mrs. Ernest Hart, the story was all told over again, with but one slight variant from the original. The 23,469 were left unaltered in all the ponderous precision of this prince of lies. But the 263 was altered into 316;—why, we neither know nor care. We can only suppose it was an artistic touch intended to convey the idea that subsequent investigation had confirmed the story, save for an unimportant emendation of the smaller figure. Anyhow, the falsehood was exported to all the ends of the earth by the hundred-weight. In vain we demanded authority for the revised assertion. We were answered by the Christian Society either evasively, or not at all. They must refer to the Authoress, they must consider, they must enquire; and meantime the flood of falsehood poured abroad. At last, thanks chiefly to the courage and persistency of the *Star* newspaper, the precious pamphlet was withdrawn. But once more the false had got ahead of the true; and the evil work was done. Mr. Rider Haggard used the fable; and as we write, Mrs. Garrett Anderson has shown no signs of repentance for having once more carried the story throughout England. We heard her narrate the fable at Toynbee Hall; and we ask her point blank what means she proposes now to take to undeceive those whom she then misled. (*Vaccination Inquirer*, March, 1899, p.p. 153-155).

THE FABLE POPPING UP AGAIN.

We take the following from *The Lancet* :—

“THE IMPORTANCE OF ASEPTIC
VACCINATION.”

To the Editors of “The Lancet.”

SIRS,—Surely a journal with the reputation of *The Lancet* owes some explanation to its readers for reproducing in the annotation on aseptic vaccination the often-exposed fable regarding Smallpox mortality in the French and German armies. This statement was withdrawn by Dr. W. B. Carpenter, who originally promulgated it in this country. Its falsity was admitted by Lord Herschell’s Commission. But the marvellous comparison keeps “popping up again” as the old lady said of Mr. Gladstone. In 1899 Mr. Rider Haggard used it in a little lecture to a conscientious objector, and afterwards withdrew it. The Jenner Society obtained through the Foreign Office an official statement from the French authorities on this subject. In this the estimate that 23,400 soldiers had died from Smallpox was stated (as a little reflection would lead one to expect) to be “greatly in excess of the reality,” so greatly that the 23,400 was brought down “not to exceed 6,000.” An estimate worth little at the best has thus suffered an official abatement of nearly 75 per cent. But the story on the authority of your review is still doing service in the newest pro-vaccination literature and *The Lancet* has unaccountably given the lie one more start in this country.—I am, Sirs, yours faithfully,

ALEX. PAUL.

* * * The figures escaped our attention. We regret to have published them as their falsity has been established.—ED. L. (*Vaccination Inquirer*, July, 1901, p. 72).

VACCINATION WITH CALF LYMPH.

DR. C. RENNER, M.D. :—

“The lymph is derived from four different outbreaks of spontaneous cow-pox. viz.,—Bordeaux, Beaugency (France); Esneau (Belgium) Cobasset (America).”

“The calves are carefully selected and remain under constant supervision of a qualified veterinary surgeon. Their temperature is noted, and every care is taken to keep them in good health and order. The stables are fitted with approved sanitary arrangements. The establishment is open throughout to medical gentlemen as well as others interested in the subject to afford every opportunity of examination.”

“The advantages of calf-lymph over lymph of long humanization, which has been amply tested by millions of cases, on the continent, in America, and in this country, may be thus briefly stated :—
I. The danger of imparting infectious and other diseases, the most important and well-founded objection to vaccination from human beings, is absolutely avoided.

II. On the other hand there is no fear of communicating any disease from which the calf may suffer

III. Erysipelas, the most dreaded disease which sometime follows vaccination, is unknown after vaccination with fresh animal lymph.

IV. The experience of many physicians tends to show that lymph obtained from the human frame subsequent to transmission through a great number of persons loses some of its efficacy. Consequently, though successful vaccination frequently occurs from this kind of lymph, yet it has lost much of its protective property, and leaves the patient liable to the disease against which the protection had been taken

V. There will be no practical limit to the production of lymph, as arrangements are made to meet any sudden extensive demand."

GENERAL DIRECTIONS FOR USE.

"Calf-lymph should be used as fresh as possible. Though the lymph retains its activity for the calf for practically unlimited time, it does not do so for human beings It is impossible, however, to say exactly how long a given specimen of calf-lymph will remain reliable. A little more care and attention, as well as somewhat larger insertions, are however necessary. The areola generally forms later in the case of calf-lymph, and the Scabs adhere for a longer time. In some cases the inoculation stage is prolonged, sometimes considerably."

SPECIAL DIRECTIONS.

"*Tubes*—Blow out the contents of the tube—after having broken off both ends—on a clean

glass slide. Should there be any difficulty in effecting this, pass a horse-hair or a thin silver wire through the whole length of the tube, and blow out. Tubes often present a turbid appearance, and are sometimes slightly tinged The presence of a little blood in calf-lymph is quite harmless."

"*Squares*—In these the lymph remains active for a longer time use the lymph by blending the solid and liquid parts well together, and reducing the whole to a kind of pulp. They produce good results, and are also economical if several patients can be brought together for vaccination. A little glycerine and water (in equal parts) may be added."

"*Points*—The American lancet-shaped ivory points are very good and convenient. They are charged on both sides from the vesicles direct, and quickly dried. For use the point should be moistened and soaked with a drop of tepid water, and the lymph on it well dissolved. The scratches should be made with the point, and the dissolved lymph well and carefully rubbed into them." (*Trans: Makuna Vaccn. Inquiry, part 1, p. 64*).

ARM TO ARM VACCINATION.

"The old Instructions to Public Vaccinators were '(5) *Endeavour to maintain in your district such a succession of cases as will enable you to vaccinate with liquid lymph directly from arm to arm at each of your contract attendances: and do not, under ordinary circumstances, adopt any other method of vaccinating.*'—And the audacious vaccinator who was found inclined to give in to the wishes of mere parents that their children should be operated on, if at all, then with calf-

lymph, was sharply pulled up.
 When in 1890, poor Mr. Watt was so weak and foolish as to apply to the Local Government Board for calf-lymph for some of his people who wanted it, he was promptly told that it was not for parents to dictate what sort of lymph was to be used for their children. ‘*There is perhaps,*’ said the *Lancet*, ‘an infinitesimal risk in human vaccination. Who shall say there is not in calf-vaccination?’—And we admitted at the time that we certainly would not be the ones to say it. The Local Government Board did its utmost to stamp out the pernicious calf-heresy. So late as September, 1895, one Dr. Barclay, of Bacup, applied for calf-lymph to meet the views of the Guardians of his district, and forthwith section 5, as quoted above, was hurled at his head after this pretentious fashion:—‘*Local Government Board, Whitehall, September, 1895,—Sir,—I am instructed by the Board to advert to your communication of the 1st inst., and with reference to your statement that the Guardians of the Haslingden Union have forbidden arm to arm vaccination, I am to point out that the present system of vaccination in England is designed to secure as far as possible vaccination with fresh lymph from arm to arm: that the official instruction in your contract contain (see Section 5 of copy enclosed) an express warning against departure from that system, the public vaccinator shall not, under ordinary circumstances, adopt any other method of vaccination than liquid lymph directly from arm to arm it is a public vaccinator’s duty to comply with the official instructions in his performance of public vaccination.*’ (*Vaccination Inquirer*, January, 1898, p. 137).

VACCINATION REFORMS.

IMPORTANT CHANGES.

Mr. CHAPLIN, in asking leave to bring in a bill to amend the law relating to vaccination, said : "Prominent amongst the reasons for the proposed change is the fact that the Royal Commission appointed in 1889 presented a report in 1896. Another reason is that there have been deplorable outbreaks of Smallpox at Gloucester and at Middlesbrough. Some of the recommendations of the Royal Commission relate to administrative changes, and others refer to modifications of the existing law. One of the recommendations is that a certain kind of lymph should be used in future. Recently, there have been some remarkable scientific discoveries, which, if they are taken advantage of, will go far to revolutionise the whole system of vaccination as practised in this country. I refer to the result which it has been proved was obtained from the preservation of calf lymph in glycerine. Lymph prepared in this way has been found to possess some striking qualities. The system is practised in Paris, Berlin, Dresden, Cologne, and Geneva. When lymph is preserved in glycerine, all extraneous organisms are destroyed and microbes of various diseases, even when inserted for the purpose of experiment, rapidly disappear, while at the same time the lymph preserves its full activity for purposes of vaccination. It can be made in great quantities, kept for a considerable period, and can be placed within the reach of all. Moreover, the necessity for arm-to-arm vaccination disappears under the new system, and consequently all risk of the inoculation of diseases from other children. The

recommendations of the Commission, first, that calf lymph should be placed within the reach of all, and, secondly, that no parent shall be bound to submit his child for vaccination by any other means whatever than calf lymph, are accepted by the Government. The Local Government Board have acquired the necessary accommodation, and preparations are in progress for the supply of the lymph. While this bill provides that vaccination shall continue to be, as at present, obligatory, compulsion will cease for vaccination by means of anything but calf lymph. Those changes carry with them another. At present the statutory arrangement for vaccination in England and Wales is based on the requirement that children shall be vaccinated by humanised lymph from arm to arm. That has involved attendance at the public vaccination station and inspection, but under this measure it is proposed that the public vaccinator shall attend at the home of the child. According to the existing law, a child must be vaccinated within the age of three months, but we extend that period to twelve months, because all authorities agree that there is a greater immunity from the undesirable consequences which sometimes result from vaccination at the age of one year than at the more tender age. With regard to non-compliance with the law, and the penalty attaching thereto, I am unable to accept the recommendation of the Royal Commission, which was that anyone who conscientiously objects to vaccination may escape the obligation by making a "statutory declaration" to that effect. It seems to me that to accept such a recommendation would in certain cases make the law a dead letter. (Hear, hear.) We propose that where a person conscientiously objects to vaccination he shall be

relieved, not from penalty, but from repeated penalties. (Hear, hear.) We are all the more convinced on this matter, because it seems proved that in the past repeated penalties, while they have excited much bitterness and bad feeling, have not secured the object for which they were imposed. What we propose to do is to remedy every reasonable complaint against vaccination, and, at the same time, to give much greater facilities for its operation in future, while modifying those existing provisions of the law which appear to be useless and harsh. These are changes which are specially of interest to the poorer classes of the community, and they will assist to minimise the effect of one of the most deplorable diseases which afflict humanity. (Cheers.)

SIR W. FOSTER, in congratulating Mr. Chaplin on his very practical measure, said it seemed to him to embody the salient points brought out by the deliberations of the Royal Commission. He commended in particular the use of a new form of lymph, which, by experiments and otherwise, was shown to be free from the objections and prejudices that existed in some quarters with respect to the present methods. If the Government could engender in the public mind a belief that it was possible to vaccinate children without incurring the slightest risk, one of the greatest obstacles to the general use of vaccination would have been overcome. In regard to cumulative penalties, he welcomed the proposals of the Government, but thought it would be better to attain the desired results by not relying upon penalties at all. It was necessary in the public safety to insist on the enforcement of vaccination, but the worst method by which its universal practice could be brought about was by injudicious compulsion.

The bill was read a first time amid cheers. (*Daily Telegraph*, 16th March, 1898, p.).

REPORT TO THE LOCAL GOVERNMENT
BOARD ON THE PREPARATION AND
STORAGE OF GLYCERINATED
CALF LYMPH.

“The information which we obtained in the course of our visits does not profess to be complete. Much remains to be ascertained by careful scientific research, in order to learn what are the precise conditions under which glycerinated calf-lymph can be prepared and stored, so as to secure to the utmost, freedom from extraneous, and especially from pathogenic, micro-organisms, whilst at the same time retaining to the utmost the undiminished protective value of the lymph material against Smallpox. We learned that in every country visited further research is being made in this direction, and in Germany a special commission of medical and bacteriological experts has been appointed by the Government to study and report upon the subject.

But the information which is now available in this country, and that which during the course of our visits abroad, was placed at our disposal with a readiness and a courtesy which calls for an expression of the fullest acknowledgment, suffices to enable me to submit the following conclusions for your consideration :—1st. It is desirable that vaccination, both primary and secondary, carried out under the auspices of the Government, should be performed exclusively with vaccine lymph derived from the calf.” (*Vaccn. Inquirer*, January, 1898, p. 140).

“For the purposes of the operation the calf is strapped to a tilting table the right side of the animal is thoroughly scrubbed with soap and hot water, and then shaved over an area extending between the internal edges of the fore and hind limbs and from some four or five inches below the spinal ridge to the umbilicus. The shaved area is next washed with soap and hot water, then with a hot solution of boracic acid, and, finally with plain hot water. It is afterwards dried with clean soft cloths. A number of superficial incisions, each about one inch long, are then made in a direction at right angles to the long axis of the body, and about a couple of inches from one another over each incision a drop of glycerinated lymph is allowed to fall from a glass tube, and the drop is rubbed in with the flat portion of the blade of the lancet when the lymph has dried, the calf is removed from the table and taken back to its stall.

The vaccine material is always collected on the sixth day. The calf is once more placed on the table the vaccinated area is washed with warm water and dried with clean soft cloths. Each vesicle is now clamped separately, and the crust first removed with a lancet

The vesicle is then thoroughly scraped with the edge of a somewhat blunt lancet, and the resulting mixture of lymph, epithelial tissue, and blood is transferred to a small nickel crucible set in a wide wooden stand on a table close to the operator. The crucible is provided with a cover which is kept over it except at the moment when a further addition is made to its contents. The collection of all the vesicular material obtainable from one

calf appears to take about three-quarters of an hour.

To the pultaceous mass contained in the crucible there is added about an equal quantity of glycerine which was described to us as 'doubly rectified,' but which appeared to be of very thin consistence as compared with the best English glycerine. No accurate measurement of the quantities employed is made.

The mixture of pulp and glycerine is triturated in a mixing machine devised by Dr. Chalybäus, of Dresden; the particular one that we saw being driven by a small electric motor.

The mixture, having thus been rendered thin and homogeneous, is received in a clean sterilised nickel crucible placed beneath the machine, but with a view of still further improving its appearance and of removing any extraneous matters, such as hairs, it is afterwards pressed through a small brass-wire sieve consisting of extremely fine gauze into an agate mortar. This is done by means of a bone spoon, and there is left on the surface of the gauze nothing but a very small quantity of epithelial tissue together with a few hairs. The mixture is further triturated in the mortar with an agate pestle, and is then ready for filling into the tubes in which it is distributed." (*Vaccn. Inquirer, February, 1898, p. 149*).

The Editor of the *Vaccination Inquirer* comments thus:—We here see that this glycerinizing does nothing to get rid of the objectionable features peculiar to calf-vaccination. The squeezing out with clamps of this bestial "mixture of lymph, epithelial tissue[skin] and blood," in a "pultaceous mass" is as savoury and appetising a process as ever. And his credulity must border on sheer insanity who will accept any man's assurance that

the simple admixture of glycerine will obviate all the dangers attached to blood convection throughout such a gruesome concoction. The witches' cauldron in Macbeth was a fool to it.

And then we are told how with this nauseous pottage the tubes are filled, how these are then sealed, and stored, and finally distributed. This is proposed as the English system of the future; for in all the other centres visited the essentials were the same. Our answer is clear, simple, and admitting of no compromise whatever.

Foul in conception, cruel in execution, and unutterably bestial in result, we will have none of a concoction which confesses the loathsome failures and shameless falsehoods of the past, and whose only good quality is the terrible warning it serves to convey against credulity in the future.

RE GLYCERINATED CALF LYMPH.

BY THE ROYAL COMMISSION ON VACCINATION:—

“Some of the best qualified witnesses who have afforded us their assistance have expressed a deliberate preference for arm-to-arm vaccination, believing that the advantages of calf lymph are more imaginary than real.” (*Final Report, No. 433, R.C.V.*)

DRS. BARLOW & ACKLAND, who were engaged by the Royal Commission to investigate cases of injury, think that “calf lymph as now usually employed tends to produce more severe inflammatory reaction than that which has been humanised.” (*Minority Report, No. 186, R.C.V.*)

THE LOCAL GOVERNMENT BOARD, in explaining away a wholesale disaster at Rügen (Germany),

whereby 320 persons were infected with a loathsome contagious disease by vaccination, said—“The operation was not ‘Vaccination’ as the word is understood in England, but consisted of insertion into the arm, after the manner of vaccination, of a mixture of vaccine-lymph, thymol-solution and glycerine, of which mixture by far the largest part must have been glycerine.” (*Letter to Arthur O’Connor, Esq. M.P., dated June 28th, 1886*).

THE GERMAN COMMISSIONERS, appointed to investigate this disaster, think that the cause “was not the vaccine merely, and that it was not the thymol; then they fall back upon the glycerine as being possibly the cause of it”—(though the glycerine is expressly stated to have been the purest). (*Summary by Lord Herschell, Royal Commission, No. 9813*).

SIR GEO. BUCHANAN, M.D., F.R.S., Chief Medical Officer to the Local Government Board, referring to this Rugen disaster said—“I have heard of dilutions of lymph with glycerine, always from people complaining of the lymph.” “It will, I trust, be long before such PREPOSTEROUS ADULTERATIONS OF VACCINE give the opportunity of investigating their results in English practice.” (*Transactions of the Epidemiological Society, vol. v. pp. 117-118*).

“INDIAN LANCET” says:—

“Glycerine is a nutritive medium for the growth of putrefactive and other germs, and being fluid, the germs soon pervade it throughout; and as a fact, this preparation (glycerinated lymph) in India soon becomes putrid and septicly dangerous.” (*Vol. ix., p. 221, March 1st, 1897*).

THE ROYAL COMMISSION ON VACCINATION record 84 CASES OF SERIOUS INJURY, RESULTING IN 24 DEATHS, from the use of Glycerinated Lymph! (*Summarised from Final Report, Appendix ix., by W. Scott-Tebb, M.D., D.P.H.*)

DR. MONCKTON COPEMAN, M.A., M.D., F.R.C.P., D.P.H., F.R.S., MEDICAL INSPECTOR TO THE LOCAL GOVERNMENT BOARD IN ENGLAND:—

“The experiments were commenced in the spring of 1898, and the Smallpox material has been obtained from cases coming under observation during outbreak of this disease at Middlesbrough, London and Glasgow.”

“In each of the separate series of experiments the human Smallpox lymph or pulp was first inoculated directly on calves, and in every instance, so far as could be observed, with altogether negative results.”

“But with monkeys success was as invariably obtained, and when, after one or more passages through this animal, the contents of the local inoculation were employed for insertion on the calf, an effect was now produced which, after one or more removes on that animal, was indistinguishable from typical vaccinia. Moreover, from the contents of vesicles raised in this manner on the calf a considerable number of children have in turn been vaccinated.” (*British Med. Journal, May, 1901, Vaccn. Inqr., Dec., 1901, p. 169.*)

“Clarke rightly points out that many cells appear similar to those found in cancer.” (*V. I., 107-9-03., Med. Press and Circ., 11-3-03.*)

“The lymph stock in use at the present time (1899) at the Government Animal Vaccine Establishment was originally obtained on November 26th, 1881, at a farm in the village of Laforet, not

far from Bordeaux : whence a sample of lymph from the seventeenth calf in succession from the animal first affected was sent by Dr. Dubreuilh, of Bordeaux, to the Medical Officer of the Local Government Board." "Numerous strains of so-called variola-vaccine lymph obtained by inoculation of human Smallpox on the calf, have been introduced, especially by Fischer in Germany, by Haccins in Switzerland, and by King in India. These strains have been successfully transmitted through many thousands of individuals." (*Vaccination: its natural history and pathology; see also Vaccination Inquirer, Dec. 1905, p. 168.*)

“VACCINATED VEAL.”

The following is a copy of the Report of the Medical Officer of Health for Camberwell on the questions recently asked by Councillor Lucas :—

Gentlemen,—In obedience to the instructions of the Council for a report on the questions asked by Councillor Lucas, I wrote to the Local Government Board, the Jenner Institute, and to Dr. Renner, asking if they could give me any information which would enable me to answer the questions set out as follows :—

1. Whether the Medical Officer of Health could obtain permission for members of the Council to view the production of calf lymph?
2. Whether about 1,000 carcasses of calves vaccinated for lymph at the Local Government Board vaccine station were sold for food in London in 1903-4 (hence, probably, 60 or more in Camberwell)?
3. Whether the calves similarly treated at the Jenner Institute (Battersea), and at Dr. Renner's

premises (Marylebone Road), are sold for food, or returned to the farmers to supply us with butter and milk?

4. Whether such veal is fit for human consumption?

5. Whether the vendors ought not to label it as "vaccinated veal" or "lymph veal"?

6. What becomes of the calves inoculated with matter "obtained in the post-mortem room from cases of Smallpox that have died—the most satisfactory material." (Dr. S. Monckton Copeman, Medical Inspector to the Local Government Board, April 25th, 1904)?

The Local Government Board are not prepared either to accede to the request or to supply the information asked for. The Jenner Institute do not allow the general public to go over their premises; but they have permitted me to make an inspection, and I find that after the calves have been used for the provision of lymph they are returned to the contractor. Dr. Renner states that he does not vaccinate calves at Marylebone Road, and does not sell them for food or return them to farmers.

Calves that have been vaccinated, in my opinion are quite fit for human food, provided no concomitant disease exists. "The blood and lymph are not virulent unless taken from the lesions. Moreover the virulence is easily destroyed by heat. The flesh is usually of good aspect, and may be passed after the parts shewing the eruption have been removed." This quotation from a standard work on meat inspection (Walley and Stockman), is, I think, a sufficient example of the accepted opinion of veterinary surgeons, and is one in which I concur.

Whether such meat should be labelled or not

is a matter rather for the butcher concerned ; but considering that these calves have been well fed and well tended, I should imagine that when people have got rid of sentimental ideas on the subject, that such veal would command a better price. At all events, at Berlin, calves that have been used for such purposes sell better in the central market than the ordinary animals. The excellent sanitary conditions under which the calves used for supplying lymph are kept at the Jenner Institute would, to my mind, render them better fitted for food than those kept in the ordinary cow houses.

I have been unable to get any information with reference to the sixth question. I should, however, say that a calf so inoculated could be used for food, provided that the inoculated part be removed and the meat be not eaten raw.

(Signed) FRANCIS STEVENS,
Med. Off. of Health.

Camberwell, May 10th, 1905.

This remarkable report was the subject of a discussion at the Camberwell Council on May 24th, which has called public attention to the subject.

Councillor Lucas opposed the recommendation of the Public Health Committee that no action be taken, and secured the adoption of the following motion—"That the Members of Parliament for Camberwell be asked to urge the Local Government Board to destroy the carcasses of calves vaccinated for lymph at the Local Government Board's Vaccine Station, instead of returning them to the contractors to be sold for food in London ; and that the other Borough Councils of London be asked to take similar action." (*Vaccination Inquirer*, June, 1905, pp. 63-4.

THE MARKS THEORY.

BRITISH MEDICAL ASSOCIATION :—

“ The degree of protection conferred by vaccination corresponds to the thoroughness with which the operation has been performed, three or four marks being much better than one or two, and a large mark much better than a small one.” (*Facts about Smallpox and Vaccination, 1902, p. 5*).

DEATH OF THE MARKS THEORY.

SIR JOHN ROLLESTON, M.P., on May 18th, asked the President of the Local Government Board :—

Whether he is aware that the recently published opinions of Dr. S. Monckton Copeman and of the Commissioners appointed by “ The Lancet ” in 1900 and 1902 to examine the various lymphs on sale in this country, support the view that large marks are not an evidence of efficient vaccination ; and that the same authorities have shown that, in consequence of the modern methods of vaccination, it is possible to produce the Board’s stipulated area of vesiculation, viz., not less than half a square inch, without leaving anything like a corresponding area of marks ; and whether he proposes to take any steps to amend the Board’s Vaccination Order of 1898, so as to make it more consistent with the latest medical evidence on these points.

Mr. Gerald Balfour’s reply in the printed answers to questions circulated with the votes, is as follows :—

Dr. Copeman informs me that, in his opinion, large scars are not necessarily evidence of efficient vaccination, and small scars are not, in themselves, evidence of inefficient vaccination,

but that usually the area of the scar corresponds fairly closely with that of the vesicle which preceded it. These opinions do not, as I am advised, render it necessary or desirable to amend the Vaccination Order, 1898, which does not make the area of the scar a criterion of successful vaccination. (*V. I.*, 1905, p. 26).

SEVERITY OF ATTACK.

BRITISH MEDICAL ASSOCIATION :—

“It cannot be truthfully alleged that independently of vaccination Smallpox is a milder disease now than in former centuries.” (*Facts about Smallpox and Vaccination*, 1902, p. 5).

DR. GEO. CORDWENT, M.D., F.R.C.S. :—

“I was 20½ years public vaccinator and have seen three epidemics of Smallpox, and some of the worst cases in each of these epidemics occurred after typical vaccination.” (*Makuna Vaccn. Inquiry*, p. 65).

DR. HOWARTH, DERBY :—

“The cases on the whole were of an exceptionally mild character. This tendency was evident among the unvaccinated as well as among the vaccinated.” (*V. I.* 66-7-05).

COMPARATIVE FATALITY.

BRITISH MEDICAL ASSOCIATION :—

“The fatality rate among persons attacked by Smallpox is much greater, age for age, among the unvaccinated than among vaccinated.” (*Facts about Smallpox and Vaccination*, 1902, p. 5).

METROPOLITAN ASYLUMS' BOARD REPORT FOR 1890 :—

“Reported a total of 26 admissions for Small-

pox, whereof five were unvaccinated of whom none died ; 19 vaccinated of whom one died ; and two re-vaccinated of whom both died." (*V. I., Jan., 1902, p. 188*).

IMPERIAL VACCINATION LEAGUE :—

"It is true that many vaccinated people take Smallpox and that many even die from it." (*Ten Answers to Questions, p. 6*).

ISOLATION.

BRITISH MEDICAL ASSOCIATION :—

"Though isolation of Smallpox cases in hospitals is a useful auxiliary to vaccination, it is no substitute for it." (*Facts about Smallpox and Vaccination, 1902, p. 7*).

IMPERIAL VACCINATION LEAGUE :—

"Unvaccinated people will never take Smallpox unless they meet the contagion." (*Ten Answers to Questions, p. 3*).

VACCINAL INJURY.

BRITISH MEDICAL ASSOCIATION :—

"Vaccination is very safe." (*Facts about Smallpox and Vaccination, 1902, p. 7*).

IMPERIAL VACCINATION LEAGUE :—

"Very rarely death may occur from the effects of the operation." (*Ten Answers to Questions, p. 10*).

DURATION OF PROTECTION.

DR. E. JENNER ;—

"What renders the Cowpox virus so extremely singular is that the person who has been thus affected, is for ever after secure from the infection

of the Smallpox : neither exposure to the variolous effluvia, nor the insertion of the matter into the skin, producing this distemper." (*Jenner's Inquiry — see Prof. Crookshank's History and Pathology of Vaccination, Vol. ii., p. 9*).

BRITISH MEDICAL ASSOCIATION :—

"Vaccination-protection diminishes with time and ought to be renewed once at least at the end of childhood (12th year). This is absolutely necessary." (*Facts about Smallpox and Vaccination, 1902, p. 10*).

DR. BOND :—

"Had seen many cases among children who had been vaccinated, and who had had Smallpox before they reached five years." (*Trans. San. Inst., Vol. xiii, p. 120*).

DR. BARRY (IN HIS SHEFFIELD REPORT :—

"Susannah H., 200 Dunlop Street, vaccinated in infancy by Public Vaccinator, with four foveated marks ; severe Smallpox at 9 years of age." *Page 27, Case No. 63*.

"Mary W., 68 Snigg Hill Back, vaccinated in infancy by Public Vaccinator, with three foveated marks ; severe and fatal Smallpox at 8 years of age." (*Page 110, Case No. 18*).

"Esther A. J., Brightside Lane, vaccinated in infancy by Public Vaccinator, with four foveated marks ; semi-confluent and fatal Smallpox at 6 years of age." (*Page 42, Case No. 79*).

"Arthur M., Allen Street, vaccinated in infancy by Public Vaccinator, with four foveated marks ; discrete Smallpox at 4 years of age." (*Page 62, Case No. 69*).

"Rose J., 145 Broadfield Park Road ; vaccinated in infancy by Public Vaccinator, with three

foveated marks ; discrete Smallpox at 3 years of age." (*Page 130, Case No. 39*).

"George E. T., 45 Canal Street; vaccinated in infancy by Public Vaccinator, with three foveated marks ; severe Smallpox at one year of age." *Page 82, Case No. 6. (What about Vaccn., p. 50)*.

BRITISH MEDICAL ASSOCIATION :—

"In countries where there is much vaccination and re-vaccination relatively to the population there is little Smallpox." (*Facts about S.P. & V., 1902, p. 3*).

DR. EDWARD J. EDWARDES :—

"More adults now die of Smallpox in this country than before vaccination was brought into use by Jenner." (*V.I., 120-9-02, and B.M.J.*)

PROFESSOR CARLO RUATA, M.D., PERUGIA UNIVERSITY, ITALY :—

"Here we have no anti-vaccination leagues : here, everyone believes that vaccination is the only protective against Smallpox : here, parents and guardians hold it a prime obligation to have their children vaccinated, so that we have a well-vaccinated population. Well, in only ten years (1887-96) Smallpox carried off 69,430 individuals." (*An Italian Indictment of Vaccination, p. 16. Nat. Anti-Vaccn. League*).

"COLOSSAL FAILURE OF RE-VACCINATION IN JAPAN.—A well-known medical professor at one of our principal universities spoke last year, at a public meeting held in the interests of vaccination, as follows :—'In order to maintain a population in a perfect condition of immunity frequent re-vaccinations should be prescribed ; for instance, every five or seven years, as is the practice in

Japan according to a law passed in that country in 1885.'

I lost no time in inquiring how matters stood in Japan, and I have succeeded in obtaining the following information from official Reports:— In 1872 a Law was passed rendering vaccination compulsory. But, owing to the great mortality from Smallpox, the Legislative Chamber in 1885 passed another Law, which made re-vaccination compulsory every five to seven years. In pursuance of this Law, between 1886 and 1892 no fewer than 25,474,370 vaccinations, re-vaccinations, and re-re-vaccinations took place, which means that about two-thirds of the entire population of Japan, already well vaccinated by the Law of 1872, were re-vaccinated, or re-re-vaccinated within a period of seven years. It does not seem possible that the most ardent pro-vaccinist could desire more. Japan, unlike Germany, does not practice isolation. Well, during the seven years (1886-92), that country lost no fewer than 38,979 from Smallpox, while 156,175 Smallpox cases were notified." (*In loc. p. 15*).

INFANT MORTALITY.

BRITISH MEDICAL ASSOCIATION:—

"The greatest diminution in the Smallpox mortality is found in the early years of life, in which there is most vaccination." (*Facts about Smallpox and Vaccination, 1902, p. 1*).

DR. C. E. PAGE, M.D.:—

"In New York City 53 per cent. of the total number of deaths occur under the age of five years." (*How we fed the baby, p. 17, Fowler Wells Co., New York*).

DR. E. BALLARD :—

“The infant death rate is nearly half as large again as it ought to be.” (*Infant Mortality, British and Foreign Medico-Chirurgical Review, April, 1870, see also How we fed the baby, p. 187*).

DR. C. W. SALEEBY :—

“Whilst the general death rate has been lowered in an enormous degree the infantile mortality is a trifle higher now than it was in the early forties of last century.” (*Daily Chronicle, December 28th, 1905, and see V.I. 209-2-06*).

DR. W. R. HADWEN, M.D., L.R.C.P., M.R.C.S., &C., GOLD MEDALIST IN MEDICINE AND SURGERY :—

“Vaccination has increased infantile mortality.” (*A physician's view on Vaccination*).

GOVERNMENT REPORTS.

“Vaccination has no power, apparently over epidemic Smallpox.” (*Sanitary Measures in India, Vol. xiii., p. 142*).

“The Vaccination returns throughout India show the same fact, that the number of vaccinations does not necessarily bear a ratio to the Smallpox deaths. Smallpox in India is related to season and to epidemic prevalence; it is not a disease therefore which can be controlled by vaccination in the sense that vaccination is a specific against it. As an endemic and epidemic disease it must be dealt with by sanitary measures and if these are neglected Smallpox is certain to increase during epidemic times.” (*13th Rep. on San. Meas. in India, 1879-1880, see Q. 1347, 2nd Rep., R.C.V.*) (*V I., July, 1901, p. 61*).

“Vaccination in the Punjab as elsewhere in India, has no power apparently over the course of an epidemic. It may modify it and diminish the

number of fatal cases, but the whole Indian experience points in one direction and that is that the severity of a Smallpox epidemic is more closely connected with sanitary defects, which intensify the activity of other epidemic diseases than is usually imagined, and that to the general sanitary improvement of towns must we look for the mitigation of Smallpox as of cholera and fever." (*Rep. of Army Comr. of the Punjab for 1876. See R.C.V., Q. 1353. 2nd Rep.*)

"The past comparative immunity of the population had been attributed to efficient vaccination and the people had accepted this protection but their confidence had been shaken by the reappearance of a severe form of this disease. The Sanitary Commissioner states that he directed a special report to be made on the subject with the following result: During the early part of the year there had been a good deal of chicken-pox in Sambulpur town: that when Smallpox broke out later on it attacked those who had been inoculated, vaccinated, and those who had previously had Smallpox or Chicken-pox: 301 persons who had been inoculated took the disease. 577 vaccinated persons were attacked, and 729 unprotected persons or 1607 in all." (*Report of Central Provinces. Q. 1353, R.C.V. 2nd Report.*)

ANNUAL REPORT OF ANIMALS DEPT., BOARD OF AGRICULTURE, 1894 :—

"Anthrax was less prevalent in this country in 1894, than in the previous year, indeed it has never been as common here as on the Continent. But anthrax vaccinations have been tried by certain landed proprietors, notably on the Yorkshire estate of the Earl of Londesbrough,

‘but the results have been very unsatisfactory, many of the animals which had been vaccinated having subsequently died of the disease.’ The Board’s officials recall the fact that Dr. Klein repeated Pasteur’s experiments, but his results were in ‘direct conflict with the statements made by M. Pasteur,’ since all sheep vaccinated by Dr. Klein, either died as a result of the injection of the vaccine material, or succumbed to anthrax when inoculated with the virulent material, after being what was considered immune to the disease.”
 (*Vaccination Inquirer, March, 1869, p.p. 164-165*).

THE MEDICAL PRESS.

“THE HOSPITAL” :—

“The only knowledge possessed by the general practitioner in regard to the utility of vaccination is just what he has been taught and nothing else. He accepts what his teachers tell him about the utility of vaccination, and that is his sole excuse for doing it and taking his fee for its performance.”

“History has shown that men who choose to act contrary to the desires of their Colleagues even in a town at the Antipodes, may be turned out of the British Medical Association.” (*The Hospital, June 1st, 1901*).

EXCLUSIVE PRACTITIONER :—

“To make that a crime by Statute which is no crime in morals is inevitably to destroy respect for the law.” *Exclusive Practitioner, April 4th, 1905, p. 17*).

“PHYSICIAN AND SURGEON.”

“We are not anti-vaccinators, but we find that statements about the general practitioner, such as are contained in the above paragraph

have a marked tendency to drive us in that direction! We do not ourselves give much credence to any statement or mass of figures originating among public vaccinators, or any other set of interested men, without the closest investigation. Statements by interested parties about the severity of Smallpox cases in unvaccinated people in hospital should be taken by the outside public with a great deal of salt. Individual cases occur to my mind at this moment where authorities have made statements which I have known to be deliberate lies. Perhaps, in view of the truthfulness of the Public Vaccinator, it would be interesting for a layman to pick up the Report of the Royal Commission on Vaccination, and to turn to the charts at the back, and to note how many of these charts have "this chart is unreliable" printed across them. You find the unreliability is singularly always in favour of the Public Vaccinator, and, of course, we are expected to believe that it was not intentional! A finer proof of the unreliability of those who accuse us of the same could hardly be desired. The methods adopted by the Public Vaccinators in performing their lucrative office leave much more to be desired than the Committee seem to think. I have seen many bad arms after their work, but it is rare to see a bad arm after the handiwork of a private practitioner. The reason is largely in the difference of method adopted. The general practitioner usually ejects the lymph from the tube on to the arm, and then gently scratches through it *without drawing blood*. The Public Vaccinator nearly always draws blood, and when blood is drawn the chance of extraneous infection is much increased because the deeper tissues are pierced. Consequently a bad arm more frequently follows

the work of a Public Vaccinator than that of a private practitioner. The general practitioner cannot afford to cause his patient a bad arm; the Public Vaccinator does not care very much, because he is not likely to see the patient again after the vaccination is over.

The statement of the Committee "that it would be practically impossible to secure adequate supervision of the work of the general practitioner" is so much rubbish. How much supervision *do* they exercise over the Public Vaccinator at present? We remember a Public Vaccinator recently cheating the London authorities out of about £800, by entering vaccinations that were never performed. In this case the present method of supervising did not seem good for much. At the present time the Public Vaccinator's word has to be largely taken for the work that he does, and we imagine that we are quite as much to be trusted as he is. The only adequate supervision would be for every case which he vaccinates to be seen by an official. This is not done. If it was done, it would be as easy to apply it to the cases of the general practitioner as to those of the Public Vaccinator. In Manchester during the recent Smallpox scare, when the Public Vaccinators were paid for vaccinating everybody and anybody, it was no uncommon thing for Public Vaccinators to give money in sums varying from 2d. to 1s., to induce people to come to their particular stations to be vaccinated. They probably considered this quite fair as regards the general practitioner. We do not. If they could forego so much of the fee to be obtained, it would have been *more honest* to have charged the town less, and to have given the patient nothing. But *that* would not have given them so much

advantage over their competitors! It is only another example of the meanness to which a Public Vaccinator is capable of descending. Yet the Committee has the impudence to insinuate that he is absolutely trustworthy when compared with ourselves.

The general practitioner, who usually has the trouble and danger of notifying Smallpox, should also have the vaccinations. It is a bit aggravating when you have notified a case of Smallpox (for which you receive 2s. 5½d. and have wasted 3s. in disinfecting yourself) to see another man walk into the same street, assisted by a canvasser from the health department, to reap where you have sown, and to draw several pounds from the rates through information supplied by yourself! It is most unfair. There is just a possibility of a time coming when the general practitioners will strike in a body against the notification of Smallpox, and leave the men who profit by their information to find the Smallpox for themselves, unless they are fairly treated in this matter of payment for vaccination. In Salford a case of Smallpox occurred behind a main road. The canvasser from the health department came to a shop on the main road, and advised a shopkeeper to be vaccinated. The shopkeeper refused. Then the canvasser told him that if anyone in the place took Smallpox, that the town would destroy all his stock and give him no compensation for the same. This is trying to enforce vaccination by threats I think! I am in a position to give the name and address of this case.

We general practitioners must insist on having back the vaccinations that have been stolen from us. We must petition to have a Bill such as the following passed, and if that is impossible after a

fair trial of a year or so, we had better throw in our lot with the anti-vaccinators, and agitate for the entire repeal of Government payment for vaccination, for then half the people would still believe in vaccination, and be vaccinated though they had to pay for it themselves, and we should then have a fair chance at the vaccinations that were going. *We*, with our technical knowledge, could say a lot against vaccination that the layman never dreams of. Here follow the principles of the alteration in the vaccination law which we propose :—

(1) That on receiving notice of the birth of a child from the Registrar, the Vaccination Officer shall send a notice to the parent or guardian of the child, requiring them to have it vaccinated within six months.

(2) That the office of Public Vaccinator be abolished, and that any registered practitioner shall be competent to perform the operation, and be paid for the same out of the rates on such terms as the Local Government Board shall from time to time determine.

(3) That if the vaccination has not been performed within the appointed time, the Vaccination Officer shall call on the parent or guardian of the child and offer to send to them a registered practitioner of their own selection, residing within the district, who will vaccinate the child at the home of its parent or guardian. The Vaccination Officer shall not attempt to influence the parents or guardian in favour of any particular medical practitioner.

(4) Any registered practitioner who gives or offers a commission in order to induce patients to resort to him for the purpose of vaccination shall be suspended from receiving payment for vaccination out of the rates for a term of 12 months.

At the present time the Public Vaccinators are claiming property in a privilege. They consider they have a vested right in a wrong. They are legally in the enjoyment of stolen property—to wit, our late vaccinations. Before the Act was passed which permitted them to offer domiciliary vaccination, I used to make about 12s. weekly from vaccinations. When the new Act had been in force a few months I was not doing above three vaccinations each quarter.

As regards the Conscience Clause in the Vaccination Act, we can hardly understand the views of the magistrates on the subject. We ourselves are vaccinators, but we are not frauds. We cannot see how anyone can be a judge of his own conscience but himself! The wise magistrates can. They also frequently tell applicants that unvaccinated persons are a danger to the community. We would hardly go that far, for the anti-vaccinator might fairly reply: 'The vaccinated community which says that an unvaccinated person is a danger to it, is by that statement denying the efficacy of its own vaccination as a preventive of Smallpox. The utmost danger he could be would be a danger to himself.' This answer would make us look foolish, and we dislike to appear foolish.

The relationship between the Public Vaccinator and the general practitioner is very much the same as that between unionists and non-unionists in a trade union society. The Public Vaccinators, though comparatively small in numbers, are well organised, and are not afraid to spend a little money in support of their interests. The general practitioners rather resemble a disorganised rabble, who will not spend anything to support their interests or to insure themselves against

oppression. Consequently, the small but organised body is able to obtain its own way even against the interests of the majority, for nobody pays much attention to the views of even a majority when it is unorganised, because they know that from its want of organisation anything that it may do will be ineffective. Such a body cannot be brought to take united action on anything. If the general practitioner would only recognise this fact, make up his mind as to what he wants, and organise, there is nothing in the profession that could resist him. Why he is so slow to see this is a mystery bigger than that of the Sphynx.

As to the one mark vaccinations, we understand that they fulfil the law, and as long as that is the case there is nothing more to be said on the matter. To imagine that one mark and sepsis go together is absurdly ridiculous, and needs no further comment. The accusation is only another 'dig' at our interests by the immaculate Public Vaccinators." *Physician and Surgeon, May 2nd. 1905, p.p. 25-27).*

“THE EXCLUSIVE PRACTITIONER” :—

“In the early days of vaccination it was exclusively performed by general practitioners : then an interested section of the profession cast envious eyes upon it and managed, at the expense of the general profession, to secure it almost entirely for their own. Not content with this they pushed the matter farther, and secured the right to further deprive the general practitioner of the small remains of his lucrative vaccination work by offering vaccination at the patient's own home, a right denied to the general practitioner The Public Vaccinator not only robs us, but in

addition has the impudence to tell us it is for our own good.

Let us suppose you are a doctor in private practice, and in the course of it you come across a case of Smallpox. You notify this case to the Public Health Authorities, and receive a miserable half-crown for doing so. Do you receive any benefit for thus acting as the public watch-dog against disease? No! Like a dog, your reward is more kicks than half-pence. A Public Vaccinator who knew nothing about that case until you notified it, comes and reaps a fine harvest of fees, and canvasses the neighbourhood, urging the population at large to be vaccinated. Reaps where he has not sown! But the unfortunate man who prevented the disease spreading by giving timely notice of its presence gets kicked out into the cold, although he also is compelled to have a certificate proving his fitness to vaccinate.

Now, how long is this burning shame going to last? The vaccinations which occur among our patients are our natural right, and we *must* have them back The laws by which we have suffered in this matter have been a gross violation of our vested interests brought about by an organised interested section of the Profession. We have been looted by an organisation." (*The Exclusive Practitioner, February 7th, 1905, p. 2*).

"The Medical Council is not a representative body, about one-seventh part of it represents the profession at large, the rest of it represents 'the conflicting commercial interests of the various Colleges and Universities,' which last was recently publicly acknowledged by one of its own members. It is time the business affairs of the profession ceased to be managed by a lot of interested

consultants and pedantic and unbusinesslike professors. . . . What interest or other right have the Senates of the Universities to rule us by electing the members of the Medical Council? Surely we are more competent to elect them ourselves. As it is, our legislators are neither hereditary, representative, nor anything else. There is nothing else on the face of the earth so absurd as the method of constitution of our governing body. The present system is taxation without representation with a vengeance, for almost the whole expense of the Medical Council falls on the general profession. We are the most highly educated body of men in the land, and are quite capable of choosing our rulers ourselves. There is no decent reason of any kind in support of the action of the Senates of the Universities in so far as they do it for us. . . . A Medical Council Reform Bill is badly needed." (*Exclusive Practitioner*, Feb. 7th, 1905, p. 5).

In the annual report of the Health Department of the City of New York, 1870-71, it is stated :

"This extraordinary prevalence of Smallpox over various parts of the globe, especially in countries where vaccination has long been efficiently practised ; its occurrence in its most fatal form in persons who give evidence of having been well vaccinated, and the remarkable susceptibility of people of all ages to re-vaccination, are new facts in the history of this pestilence, which must lead to reinvestigation of the whole subject of vaccination and of its claim as a protecting agent." (*Vaccn. Superstition*, p. 15).

Index.

A

Abandoned calf-lymph, 59.
 Abolish penalties, 54.
 Abnormal results, 31.
 Absolute unprotection, 44, 66
 Acland, Dr., 85.
 Age limit extended, 121.
 Alsop's case, 7.
 Altered policy, 35.
 Anthrax, 139.
 Anti-toxin, 85.
 Anti-vaccinators, 59, 63.
 Army, French, 92.
 Arm to arm, 118.
 A serious evil, 13
 Attack indiscriminately, 25.

B

Ballard, Dr., 138.
 Barrs, Dr. A. G., 62.
 Barnes, Dr. R., 77.
 Barry, Dr., 135.
 Barton, Dr. J. K., 81.
 Barlow & Acland, 79, 126.
 Bencraft, Dr., 41.
 Birdwood, Dr. R. A., 65.
 Black, Dr. C., 75.
 Blood poisoning, 29, 41.
 Blood, in all lymph, 60, 74.
 Boobbyer, Dr., 82.
 Bond, Dr., 45, 135.
 Bond, Dr. F. T., 45.
 Branthwaite, Dr., 100.
 Brit. Med. Assocn., 133, 134,
 135, 136, 137.
 B.M.J., 29, 34, 85, 92, 100,
 103.
 Bristowe and Humphry, 76.
 Bridges, Dr. J. H., 31.
 Buchanan, Sir Geo., 127.

C

Calf Lymph, 20, 31, 41, 59,
 60, 79, 116.
 Cameron, Dr., 36.
 Cancer, 79, 128.
 Carpenter, Dr., 93, 94, 96.
 Carter, Dr. B., 37.
 Ceely, Dr. R., 10.
 Cellulitis, 43.
 Chaplin, Rt. Hon., 76, 120.
 Chancre, 60.
 Chalmers, Dr., 80.
 Charteris, Dr., 25.
 Changes, 120.
 Chickenpox, 46.
 Children, 45, 50, 128.
 Clarke, Dr. J., 78, 83, 128.
 Classification, 21, 73, 87.
 Comparative fatality, 133.
 Compulsion killed, 65.
 Confusion, 5.
 Conditions, unsafe, 13.
 Consumption, 12, 43, 86.
 Copeman, Dr. M., 75, 78,
 127.
 Corroding ulcers, 31.
 Cory, Dr. R., 32.
 Cordwent, Dr. G., 133.
 Cost of Life, intolerable, 13.
 Cowpox, 1, 2, 3, 7, 8, 15.
 Cowpox, severe, 9, 66, 77.
 Crazy enthusiasts, 30.
 Cruel methods, 126.

D

"Daily News," 94.
 Dalton, Dr., 72.
 Davidson, Dr., 31.
 Dangerous consequences,
 74, 77.

ii.

D—(Continued.)

Deaths, 12, 27, 29, 36. 61,
134.
Death of marks theory, 132.
Diagnosis, 79.
Discussion undesirable, 59.
Disinfection, 66.
Disease, vaccination—a, 66,
71, 77.
Disowned, 106.
Diversity of opinion, 56.
Dobson, Dr. 81.
Doctors, 80.
Domiciliary Vaccination, 121
Duration, 134.

E

“Echo,” 101.
Eczema, 34.
Edwardes, Dr., 83, 136.
Effects of Cowpox, 1, 2, 8.
Efficiency, 81.
Eruptions, after Vaccination,
32, 42.
Erysipelas, 43, 76.
Erythema, 43, 79.
Estlin, Dr., 9.
Evidence, unsatisfactory, 6,
7, 11.
“Exclusive Practitioner,”
140, 146.
Exploded fable, 102.

F

Fatal inoculation, 1.
Fatality, 133.
Fairy tale retold, 100.
Fad, newest, 75.
Falsehood, 101, 126.
Farr, Dr., 20, 21, 31.
Farrar, Dr. R., 28.
Farquharson, Dr., 80.
Fees, 147.
Fifty per cent, 31.
Figurative Language, 17.
Five years, 45.

F—(Continued.)

Fitness, 79.
Fleeting, protection, 66.
Foster, Sir W., 64.
Forcible Vaccination, 64.
Foul conception, 126.
French and German Army,
92.
Frightful pictures, 30.

G

Gangrene, 43, 61.
Gayton, Dr., 66.
German Army, 92.
German Commissioners, 127
Germany, 63, 92, 98, 100,
105.
Glasgow, 69.
Glycerinated Lymph, 75, 76,
121, 123, 126, 127.
Good marks, 73, 81, 132.
Grave injuries, 31.
Grease, horse, 7.
Great epidemic, 89.
Gregory, Dr., 56.
Government Report, 138.

H

Hadwen, Dr., 138.
Haggard, Rider, 109.
Have had it, 14.
Health Department, N. Y.
148.
Hibbert, Dr., 84.
Hong Kong, 24.
Horsepox, 2.
Horse grease, 7, 8, 18.
“Hospital,” 140.
Howarth, Dr., 81, 133.
How lymph is obtained, 123
Husband, Dr., 74.

I

Ignorance, 55, 57.
Illustrations, 70.

I—(Continued.)

Iliffe, Dr., 58.
 Imperial Vaccn. League, 134
 Immunity, 26, 44, 57, 58, 72,
 84.
 Impetigo, 43.
 Imperfect protection, 4, 64.
 Inconclusive results, 11.
 India, 127, 138.
 Inexpedient intervention, 31.
 Infallible preventive, 80.
 Infant mortality, 137.
 Infant vaccination, 2, 15, 50.
 Injuries, 31, 43, 61, 127, 134.
 Inghousz, Dr., 6.
 Inoculation, 1, 5, 9, 12, 20.
 Intolerable cost of life, 13.
 Isolation, 49, 65, 67, 134.

J

Japan, 136.
 Jenner, Dr. E., 1, 7, 19, 55,
 134.
 Jessett, Dr., 30.

K

Killed compulsion, 65.
 Kirk, Dr., 80.
 Klein, Dr., 16, 140.

L

"Lancet," 25, 64, 77, 84, 89,
 116.
 Lankester, Dr. H., 66.
 Later age, 64.
 Lauder, Dr., 42.
 Law, a dead letter, 64, 121.
 Leicester, 67.
 Less perilous, 65.
 Life history of a lie, 107.
 Littlewood, Dr., 61.
 Loathsome, 126.
 Local Government Board,
 127.
 Low, Dr., 82.

L—(Continued.)

Lymph, 4, 19, 35, 41, 46, 51,
 58, 60, 74, 75, 79, 84,
 123.

M

Marks theory, 73, 81, 132.
 Maximum, 20.
 May, Dr. H., 27.
 Mayo, Dr. 86.
 Medical Council, 147.
 " Press, 89, 92, 140.
 " Association, 133, 137
 " Science, 75.
 Metrop. Asylums Board, 133
 Mild Smallpox, 3, 14, 74, 82.
 Millard, Dr. K. C., 67.
 Mooney, Dr. John, 78.
 Monkeys, success with, 128
 More severe, 79.
 Morbid state, 29, 30.
 Morris, Dr., 42.
 Mortality augmented, 13, 24
 Munk, Dr., 24.

N

Nash, Dr., 84.
 Negative phase, 77.
 Newest fad, 75.
 New York, 148.
 No difference, 58.
 Notification, 67, 147.
 Not pathologically precise,
 17.
 Not now familiar, 19.
 Not to be relied on, 23.
 Nurses, 5, 57, 80.

O

Occasional failure, 64.
 Ogle, Dr., 46.
 Origin of lymph, 20, 52, 129.
 Overcrowding, 48, 51.
 Overworked falsehood, 101.
 Oxley, Dr., 83.

P

- Page, Dr. C. E., 137.
 Paget, Sir James, 29.
 Pasteur's anti-rabic, 85, 140.
 Parasitic forms, 79.
 Paul, A., 115.
 Pearse, Dr., 26.
 Pearson, Dr., 7.
 Peacock, Dr., 82.
 Periods, 21.
 "Physician and Surgeon,"
 140.
 Playfair, Sir Lyon, 97.
 Popping up again, 115.
 Porter, Dr. Thorpe, 58.
 Points, 118.
 Public Vaccinator, 142.
 Pulled up sharply, 119.
 Purpura, 34, 43.
 Putrifaction of lymph, 34.
 Pultaceous Mass, 125,
 Preserve from reproach, 28.
 Precaution necessary, 35.
 Preparation of lymph, 123.
 Priestly, Sir W., 62.

Q

- Qualification, 103.

R

- Rake, Dr., 42.
 Ramsey, Dr., 9.
 Reforms, 120, 148.
 Reinvestigation necessary,
 148.
 Reid, Dr., 80.
 Reasonable fears, 12.
 Relapse, 15.
 Remnant of susceptibility, 16
 Renner, Dr., 116.
 Retraction by Dr. Carpenter,
 96.
 Re-vaccination necessary,
 14, 17.

R—(Continued.)

- Re-vaccination unnecessary,
 58, 63.
 Risks very small, 45.
 Robinson, Dr., 86.
 Ruata, Dr., 136.

S

- Saleeby, Dr., 83, 138.
 Sanitation, 48, 51, 63.
 School age Vaccination, 45,
 64.
 Scrofula, 12.
 Scarlet, fever, 20, 50.
 Seaton, Dr., 23.
 Serums, 85.
 Septic poisoning, 42.
 Severity of attack, 133.
 Shorthouse, Dr., 30.
 Sharply pulled up, 119.
 Sheep vaccination worthless,
 23.
 Sheffield, 135.
 Simon, Sir John, 11, 23.
 Sixty-eight per cent., 44.
 Sloughing wound, 60.
 Smallpox after Cowpox, 4,
 5, 6, 7, 9, 12, 24, 45, 66,
 82, 134.
 Smith, Prof., 44.
 Specific poisons, 29, 57.
 Spontaneous Cowpox, 19.
 Spreading Smallpox, 5.
 Statistics, 47, 53, 96.
 Stevens, Dr., 131.
 Styles, Henry, 7.
 Supperations, 1.
 Susceptibility, 73.
 Syphilis, 32, 35, 36, 37, 62, 78

T

- "Tarquin," 26.
 Tatham, Dr., 82.
 Taylor, P. A., 97.
 Taylor, Dr. H. H., 66.

T—(Continued.)

Taylor, Dr. F., 60.
 Tebb, W., 102.
 Ten in every thousand, 12.
Terra incognita, 11.
 Thorne, Dr., 50.
 Trobridge, A., 40.

U

Ulcers, 2, 31.
 Unprotected adults, 44.
 Universities, 147.
 Unsafe to operate, 13.
 Urticaria, 34, 43.

V

Vaccination, a serious disease, 9, 66, 71, 77.
 Vaccination, Smallpox after, 4, 5, 6, 7, 9, 12, 24, 45, 66, 82, 134.
 Vaccination of children, 2, 15, 45, 50, 64, 128.
 Vaccination, replaced inoculation, 20.
 Vaccination, worthlessness of, 23.

V—(Continued.)

Vaccinated persons liable, 23
 " Veal, 129.
 Variety of eruptions, 18, 34, 43.
 Vail, Dr. Mc., 63.
 Veal, vaccinated, 129.
 Very severe disease, 9.
 Very bad arms, 59.
 Virtue lost, 15, 17, 36, 73.

W

Walker, Dr. N., 79.
 Ward, Dr., 61.
 Warner, Dr. Allen, 82.
 Weir, Dr. McCook, 59.
 Where are we now, 75.
 Wilkes, Dr., 72.
 Wilson, Dr. Geo., 85.
 Witches cauldron, 126.
 Woodville, Dr., 8.
 Worst possible form, 12.
 Worthlessness of vaccination, 23.
 Wondrous lie, 107.
 Wounding, 74, 85.
 Wright, Dr. A. E., 77.



"*Vaccination has become a crime.*"—DR. F. L. OSWALD, M.D.

"*A man would have to have a heart of stone if he would not melt at the sight of the misery it produces.*"—DR. M. FRIEDRICH, M.D.

INTERNATIONAL ROLL OF ANTI-VACCINISTS.

If agreeable, please cut out the following Coupon and send it to W. J. FURNIVAL, 16 Granville Terrace, Stone, Staffordshire, England.

INTERNATIONAL ROLL OF ANTI-VACCINISTS.

This is to certify that I desire the total abolition of all national statutes encouraging, enforcing or endowing the practice of vaccination, and also that I desire my name to be included in the International Roll of Anti-vaccinists.

Date.....

Name.....

Address.....

Town.....

County or State.....

Country.....

COMPANION BOOKLETS.

NOW READY.

Professional Opinion Adverse to Vaccination :
British... .. **6d.**

Professional Opinion Adverse to Vaccination :
American, Colonial and Continental ... **6d.**

IN COURSE OF PREPARATION.

Notable Public Debates, Discussions, and Contro-
versial Correspondence on Vaccination ... **6d.**

Echoes from the Witness Box, or What Mothers
and Fathers say about Vaccination ... **6d.**

Vaccinal Injuries illustrated... .. **6d.**

STONE, STAFFORDSHIRE :

W. J. FURNIVAL, 16 GRANVILLE TERRACE.

OTHER PUBLICATIONS.

LEADLESS DECORATIVE TILES, FAIENCE AND MOSAIC :

Comprising copious notes on the History, Materials, Manufacture and use of Decorative Tiles, and Mosaic, and constructional and applique Chromo-faience, with complete series of recipes for Tile bodies and Leadless Art-Tile Enamels and Glazes.

By W. J. FURNIVAL, Research Ceramist, Honours Medalist of the City and Guilds of London Institute in Pottery and Porcelain.

852 pages, Crown-quarto, cloth, gilt top, profusely illustrated and containing over 500 recipes many of which are the result of special research.

Price **£6 6s. 0d.**

RESEARCHES ON LEADLESS GLAZES :

A contribution to the experiment solution of the Problem of Lead-poisoning in Potteries.

By WILLIAM J. FURNIVAL, Honours Medalist of the City and Guilds of London Institute.

135 pages, Crown-octavo, cloth, gilt edges.

Price **£5 5s. 0d.**

Staffordshire Potteries Slop Flint and Stone
Trade Calculation **6d.**

Explanation of Slop Flint and Stone Trade
Caluclation **2s. 6d.**

Tables of Equivalent Measures of Clay Slips... **2s. 0d.**

PUBLISHED AT
STONE, STAFFORDSHIRE,
BY W. J. FURNIVAL, 16 GRANVILLE TERRACE.



