

## NOTABLE BOOKS.

## RECENT NOTABLE BOOKS AND ARTICLES ON VACCINATION.

"VACCINATION." BY S. MONCKTON COPEMAN.<sup>1</sup>

"VACCINATION A DELUSION." BY ALFRED RUSSELL WALLACE.<sup>2</sup>

"A CENTURY OF VACCINATION." BY W. SCOTT TEBB.<sup>3</sup>

"THE HISTORY AND EFFECTS OF VACCINATION." *Edinburgh Review*, April, 1899.<sup>4</sup>

THE fact that the British Parliament thought it advisable to pass a law allowing those who had any conscientious objection to vaccination for themselves or their children to make a declaration to this effect before a magistrate and thus free themselves from the obligation of the compulsory vaccination law, has given a great impulse to vaccination literature pro and con. As to conscientious objection itself nothing better has been said than that in the new "Nox Ambrosiana" in *Blackwood's Magazine* for April.

The Shepherd (loquiter): "I wad like fine Mr. N—— to hear your defenection of a conscientious objector. Ma conscience gin the shepherd had his wull o them there wad na be mony sic cattle stravagning about the kintra-side disseminating their abominable diseases."

Kit North: "I own I have no more conception of the meaning of the word in that connection [conscientious objector to vaccination] than of the meaning of a conscientious objector to the multiplication table. I cannot, however, absolve the medical profession of all blame in the matter. Had they uttered a louder and more certain sound I believe the House of Lords at least, might have treated the bill as it deserved."

We think that these words of the illustrious North, worthily redivivus for the occasion, furnish the best reason we can give for reviewing the recent literature of vaccination. It is to be hoped that when the legislative struggle comes in this country, as come it will, if we read the signs aright, it will find a united profession which understands thoroughly the reasons for the faith that is in them as regards Jenner's great discovery.

Vaccination was introduced just a little more than one hundred years ago. It would certainly not seem too much to expect that all argument as to its utility or futility would have ceased long ere this, yet the list of works we have just quoted, which have all appeared during the last few months, seems to show that the question is still a living issue. The recent action of the British Parliament

in lightening the compulsoriness of vaccination, though this was concealed behind the veil of conscientious objection to the proceedings, came as a distinct shock to the medical world. It is a good rule that *audi alteram partem*, even though one may be sure *aliunde* that the other party is wrong. It is of special interest to physicians in this case to know something of what has been said on the other side, *i.e.*, by the opponents of vaccination, because their arguments are quoted often by the non-medical public as if they were unanswerable, and it behooves one to be prepared for them. We have ventured, therefore, to throw all the important protagonists together and discuss some of their opinions where the benefit of contrasting ideas will serve to show them in their proper light.

Dr. Copeman's book is a plain matter-of-fact statement of the important points with regard to vaccination. It is not a complete treatise and will perhaps be of little value to physicians who, interested in vaccination for years, have followed more or less carefully the literature of the subject, but it is the sort of book which gives the essential facts that are so frequently the subject of discussion. As Dr. Copeman was awarded a medal for certain experimental work on the bacteriology of vaccinia, and more especially for his important practical discovery of the influence of glycerin when mixed with calf-lymph in inhibiting and finally eradicating any adventitious micro-organisms that may be present, it is evident that his work on the subject will be thoroughly up to date.

The book while in certain respects a good compilation of what has been done in vaccination is especially valuable as the record of a large amount of patient and successful original investigation. Some quotations at the beginning of the book from contemporary records serve to show how prevalent smallpox was in England before the introduction of vaccination. The following from "Pages from a Private Diary," which appeared in the *Cornhill Magazine* for January of last year shows how ever present was the thought of smallpox to the people of the prevaccination era in England. Mrs. Waller writes to her son who was in exile from England at the time and wishes to know how much dowry he is prepared to give with his daughter.

"I am not in haste to marry her," she says; "she is young enough to stay, but the danger is if she should catch smallpox and her beauty should change it would be a great loss to her."

For medical men who may have any haunting fears that Jenner's work because done a century ago was unscientific in its methods or inexact in the conclusions drawn, will find that the brief succinct review of that work by Dr. Copeman will lay all their fears in this matter. Any doubts that may exist in fair minds as to the identity of vaccinia and variola, the former being only a modification of the latter, will be laid to rest by the careful, judicious review of all the observations that have been made on this subject, especially some convincing recent experiments.

It is a distinct surprise to find a man like Mr. Alfred Russell Wallace among the antivaccinationists. He was the discoverer at the same time with Darwin of certain

<sup>1</sup> "Vaccination; Its Natural History and Pathology," being the Milroy Lectures for 1898, delivered before the Royal College of Physicians of London. By S. Monckton Copeman. [Work honored by a medal of the College.] New York: Macmillan & Company, 1899.

<sup>2</sup> From "The Wonderful Century; Its Successes and Failures." By Alfred Russell Wallace. New York: Dodd, Mead & Company.

<sup>3</sup> "A Century of Vaccination and What It Teaches." By W. Scott Tebb, M.A., M.D. (Cantab.). Second Edition. London: Swan, Sonnenschein & Company, 1899.

<sup>4</sup> "The History and Effects of Vaccination." *Edinburgh Review*, April, 1899. A review of six recent books and articles on the subject of vaccination published in England.

principles of evolution, and his work since in biology has ranked him with the great scientists and thinkers of the century. When Mr. Wallace has anything to say he says it forcibly. His condemnation of vaccination is utter and unsparing. He says: "The operation is admittedly the cause of many deaths and of a large though unknown amount of permanent injury. The only really trustworthy statistics on a large scale prove it to be wholly without effect as a preventive of smallpox. It will undoubtedly rank as the greatest and most pernicious failure of the Nineteenth Century. It will be one of the inexplicable wonders of future generations that the delusion as to vaccination should have prevailed among men of science when progress in medicine was at its acme, at the close of a wonderful century of scientific discovery."

Mr. Wallace supports his position against vaccination by the usual arguments of the antivaccinationists: the decrease in the mortality from smallpox is due to the better sanitary conditions in the city and country, but not to vaccination. "Smallpox," he says, "other things being equal, is a function of density of population but pays no regard whatever to vaccination." One is sorely tempted to ask here if the population anywhere in the world 'other things being equal' has grown less dense in anything like the proportion that smallpox has become less frequent. Mr. Wallace holds up the crucial test of unvaccinated Leicester, with a very low death-rate. We note that very little is said of Gloucester whose bitter lesson of the fatal epidemic of a few years ago is a sad thorn in the side of the English antivaccinationists. The death-rate of unvaccinated Leicester from smallpox, some 15 per million, is compared triumphantly with the smallpox death-rate in the faithfully revaccinated army and navy, which is some 37 per million, but nothing is said of the much greater exposure of the army and navy to infection with the disease and that, too, very often under unfavorable conditions of climate and sanitation and hospital care.

The most telling reflections on Mr. Wallace's peculiar position with regard to vaccination are to be found in the opinions he advances on some other topics in the same book. For instance, in his essay on "The Neglect of Phrenology" he says: "In the coming century phrenology will assuredly attain general acceptance. It will prove itself to be the true science of the mind. Its practical uses in education, in self-discipline, in the reformatory treatment of criminals and in the remedial treatment of the insane will give it one of the highest places in the hierarchy of the sciences. Its persistent neglect during this last sixty years will be referred to as an example of the almost incredible narrowness and prejudice that prevailed among men of science at the very time when they were making such splendid advances in other fields of thought and discovery." Mr. Wallace stands absolutely alone among serious men of science in holding such opinions with regard to phrenology. They are on a par with his peculiar notions as to vaccination.

In his essay in the same volume on "Hypnotism and Psychological Research" he holds almost an equally extreme opinion. "Thought transference," he writes, "automatic writing, trance-speaking and clairvoyance have all been

demonstrated. The still more extraordinary phenomena of 'veridical hallucinations,' warnings, detailed prediction of future events, phantoms, voices, or knockings visible or audible to numbers of individuals, bell-ringing, stone-throwing without visible human agency still occur as they have in all ages."

It is not necessary to comment further on the author's peculiar position as to vaccination. If anything more were needed it will be found in some reflections on his facts and statistics which we shall quote from the last of the articles on vaccination that we review in this article.

Dr. Tebb is one of the great leaders of the antivaccinationists in England. His book is an attempt to show that vaccination has never accomplished the slightest good and as it has at times done harm in various ways, by syphilitic inoculations, by lighting up erysipelas and the like, that it should be entirely abandoned. The book is a magnificent example of special pleading, written in an assumed temper of the most guileless impartiality, yet it takes but very little consideration to detect the ineradicable prejudice that has animated the writer in his every look at the subject. Appeals to popular feeling are most skilfully made by the publication of every fact that has found a place in medical literature during the century that can be made in any way to tell or seem to tell against vaccination. A number of instances from the beginning of the century in which vaccination did not protect are quoted in detail. Not a word is said of the fact that defective technic sometimes led to apparent but not real vaccination in those early days. There might be a scar due to certain germs inoculated at the same time with the supposed vaccine virus and yet the patient may not really have had vaccinia at all and consequently not have had the benefit of its protection.

A great deal is made of the various epidemics of syphilis due to the use of humanized virus taken from the persons of patients suffering from syphilis. Owing to the way in which the matter is treated the impression can scarcely fail to be left on the minds of lay readers that such epidemics are also liable to occur now. In fact Dr. Tebb deliberately and explicitly says that "there is no guarantee that syphilis or symptoms indistinguishable from this malady may not be induced by the inoculation of either human or *animal* virus." As we know absolutely no animal, least of all any of the herbivora, which is liable to syphilis the indefensible position Dr. Tebb takes is evident.

It is only a sample, though, of the methods used throughout the book to sway the unthinking to his views. All the cases of leprosy that have ever occurred as the result of vaccination with vaccine lymph from lepers are quoted in minutest detail. The total of these is not very great but the lay reader by implication is worked up to think that perhaps the communication of leprosy by vaccine lymph is possible even in countries in which the disease does not exist.

As a good model of special pleading Dr. Tebb's work can be recommended without scruple to all those whose purpose in life is that of making the worse appear the

better part. That great purpose of the sophists of old is accomplished with a skill that even the most acute of Greek dialecticians would have envied. It would require the trenchant pen of Aristophanes to properly characterize it.

The article in the April number of the *Edinburgh Review*, on the "History and Effects of Vaccination" ought to prove a good antidote to some of the dangerous matter that has found its way into circulation as a consequence of the recent agitation over the Conscientious Objection bill in England. It contains especially an excellent discussion of "Sanitation and Isolation," the watchwords of the antivaccinationists. Sanitation and isolation, according to the opponents of vaccination, have accomplished all that has been done to limit smallpox in the past and will practically eradicate it in the future. It is pointed out by the writer in the *Edinburgh Review* that smallpox does not originate in filthy surroundings, and that, if introduced it may become epidemic in the most hygienic of country districts or in well-regulated towns. As for perfect isolation for smallpox it is an illusion. Before the disease has become distinct enough for diagnosis and yet while it is undoubtedly contagious, intercourse with healthy individuals is inevitable. It is vaccination that has reduced the mortality from smallpox during the present century and the hope for the ultimate eradication of the disease lies in this direction.

As to the danger from vaccination the last set of statistics carefully compiled in Germany shows one death to 100,000 vaccinations, delicate children especially being subjects of even this extremely small mortality. This mortality is not due so much to vaccinia itself as to complications. The inoculation of other infectious material with the vaccine matter has been the principal cause. Now that the use of vaccine lymph which has been kept in glycerin without access of light and air for some time practically assures absolutely uncontaminated vaccine material even this death-rate will be lessened.

We may close with a citation from Dr. McVail's "Vaccination Vindicated" which the writer in the *Edinburgh Review* quotes: "Dr. McVail refers to the statements of Mr. Alfred Russell Wallace and exposes an amount of inaccuracy in assertion and statistics that is amazing and lamentable and says: 'The rule is to believe no single word that an antivaccinationist as such says without obtaining independent evidence of the truth of his assertions. No matter what the position or absolute trustworthiness of the person in every other relation of life, yet when he comes to write on this subject his every statement demands the most rigid scrutiny.'"