

therapeutics since Ringer became a leading authority. The disease of cowpox resembles smallpox, therefore it ought to be a specific for the latter; and the homœopaths actually prescribe "vaccin," an attenuated form of the virus, as a remedy for variola. But granting the truth of this doctrine, when we come to consider medicine as a prophylactic, or preventive, we get into the region of doubt and speculation. Few medical authorities will pronounce with certainty that quinine will prevent ague, or that belladonna will prevent scarlatina. There is just presumptive evidence that in a certain proportion of cases those specifics will act preventatively. Hence there is no solid ground here.

The positive researches of Pasteur and Koch tend to go farther and establish certain facts by a series of experiments conducted so as to exclude the element of chance. Briefly stated Pasteur has found that the zymotic diseases have their existence in bacilli or germs which multiply with marvellous rapidity in the blood, each disease exhibiting its own species of bacillus. Proceeding to the next stage, Pasteur has discovered that by *educating* or attenuating the virus, by passing it repeatedly through living bodies, it will not endanger life, yet will prevent the fatal type from attacking the individual. By analogy, if we suppose vaccine an attenuated form of the virus of smallpox, we have the theory of vaccination supported by the experiments of Pasteur. One thing, however, is wanting—that the Baconian method shall be extended to smallpox itself, and the actual results, of vaccination succeeded by inoculation, ascertained. When this has been done we shall have arrived at something like scientific exactitude.

The later fashion of repeated vaccinations appears to have weakened the cause of the vaccinationists. It is matter of history that the best preventive of smallpox was to have *once* had the smallpox; but the medical faculty have to admit that this rule does not hold good if we substitute vaccine as the prophylactic. In truth the tide of experiment seems to lead us back to the Turkish importation of Lady Mary Wortley Montague, and to find the prophylactic in inoculation, or the conveyance into the blood by artificial means of the smallpox virus itself. And this is the line on which all Pasteur's experimentations have been conducted. The anti-vaccinationists might ask their opponents if they are prepared to adopt the only logical conclusion arrived at by scientific experiment.

But nothing perhaps has shaken the confidence of the world so much in the discovery of Jenner as the established fact that infectious and other diseases are introduced into the bodies of healthy children through vaccination. The testimony on this point is conclusive, and is not denied, so far as we are aware, by any respectable medical authority. The love of parents for their offspring is so strong that the moment the danger strikes their imagination, they recoil from the practice, and in numerous instances brave all the pains and penalties of the law. The doctors, in order to avoid collision with parental apprehension, have again shifted their ground, and have gone to a source where no impure thing can exist, which they have found in the *cañf*. But have they proved that scrofulous diseases cannot be transmitted to the calf and reconveyed to human beings? What is this but rank empiricism? This source of *purity and potency* may moreover have its own list of poisons, its own special dangers, and after all may not ward off the epidemic from the "East Ends" of great cities.

There is an old proverb which we call to mind—'Between two stools we fall to the ground.' On the one hand we are told to rely on vaccination. On the other we are to look to sanitation and isolation. If vaccination is so effectual a preventive, it is unnecessary to be so very particular about isolation. But as a matter of observation the authorities one and all appear to doubt the security afforded by vaccination by the extreme care they take to enforce quarantine. Now sanitation and isolation are absolute safeguards if rigidly carried out. If to these we give our allegiance, we shall receive in return the most perfect immunity, not only from smallpox but from the whole family of zymotics. Divided allegiance in this as in other

matters only entails demoralisation and confusion. What makes the practice the more indefensible is that, should the enemy get in, the vaccination already performed would be of little or no avail, and the whole adult population at least would have to be vaccinated afresh. And if this is the theory, what justification is there for the compulsory vaccination of infants?

In cases of doubt we have a right to demand liberty: when doctors differ disciples are free. Every person, it is true, has in civilised society obligations towards his neighbour, and a state of affairs might exist to justify compulsion. But we submit that the following conditions must exist—That there is a certainty, based on uniform favourable results, of the efficacy of vaccination as a preventive—That the practice does not entail the risk of introducing other loathsome and serious diseases—That smallpox cannot be kept out by sanitation and isolation. Each of these propositions we have discussed, formulating them at the end instead of at the beginning, in order to present to the mind a summary of the argument which it appears to us covers the whole ground.

Finally, if compulsory vaccination is indefensible, as we firmly believe it to be, what is the best way of gaining the ear of Parliament and obtaining the repeal of the compulsory principle? The constitutional method of stating grievances is by petition, and there is nothing better than this either to educate public opinion or to inform Parliament that opinion exists. The petition should be carefully and skilfully drawn, and drafts of it sent to the different communities for signature. If there are only a few earnest men in every centre of population who are opposed to compulsion, the petitions will be extensively signed and a powerful impetus given to the cause of liberty, not in the special case of vaccination only, but by sympathy to other movements which ought to succeed.

B.

## WHY HAVE FREETHOUGHT ASSOCIATIONS?

THERE are some people who always put the question, why have Freethought Associations? They say, and say truly, that there are hundreds of men attending Churches who do not accept the popular creeds. Nay, they can also with historical accuracy show that many of the old faiths—the obsolete beliefs—come to an end not by argument but with the growth of knowledge. For example, it was not by writing against witchcraft that a disbelief in witchcraft ceased. The 30,000 persons judicially hanged and burned for witchcraft were forgotten, and the law of James was repealed when superstition was conquered by knowledge. All this is true and should not be forgotten. Old beliefs decay without attack—some, and considered vital, are seen to be decaying. The belief in a personal devil does not loom so large in an every day life as it did even twenty years ago. It is not now necessary in an indictment for murder to say that the accused was moved and instigated to the crime by the devil. We can laugh at the devil now—he has lost his terrors, and outside the ranks of the Salvation Army and the membership of the more narrow sects, the belief in the devil is not vital. And little argument will be required during the next twenty years to destroy this decaying creed of an evil once almost all powerful.

But yet I consider Freethought Associations necessary. There is much vitality in many narrowing beliefs yet, and there are in our midst many who, from hereditary and social surroundings, lack backbone enough to state their honest beliefs. We are not true to each other. We think it wrong to be heretical. We often sail under false colours because it is unpopular to be candid. In one of his charming lectures Colonel Ingersoll tells a story of twenty Texan settlers meeting in a small hotel on the frontier. One of them said:—"Now boys, let us all tell our real names." Is not every society often constituted in a like manner? There are people attending Presbyterian Churches who, if they called themselves "in religion" by their real names would not be named 'Presbyterians' but 'Unitarians.' And so is it amongst the educated laity in all the