

INOCULATED MEAT.

DR. C. B. TAYLOR (Nottingham) writes: If we vaccinate a patient who has not been vaccinated previously and the vaccination does not "take"—produces no effect, no heat, no redness, no swelling, no pain, no constitutional disturbance, no formation of vesicles containing inoculable lymph—then the patient is clearly not vaccinated at all, but is in precisely the same position as one who has not been subjected to any prophylactic treatment whatever. Similarly, if we inject some fluid into the cellular tissue of an animal supposed to be in danger of anthrax, and the operation produces no effect whatever—no pain, no heat, no swelling, no constitutional disturbance, no deteriorated health—then it seems clear to me that we have merely performed a superstitious rite, and that the patient is just as likely to contract anthrax as it would be if nothing had been done.

Your able correspondent, Professor Penberthy, calls our attention to the great number of animals who have been injected with so-called *vaccin charbonneux* in France without suffering any ill consequences from the operation, but he does not tell us how many have died of charbon, contracted in the usual manner, notwithstanding the process, and Professor Koch complains that M. Pasteur has displayed a similar reticence.

So far as I can learn, when the *vaccin charbonneux* is of any use at all, those animals who recover are severely damaged, and the results as regards a considerable proportion most disastrous. For instance, quite recently the brothers Pankvalff, Russian millionaires, allowed Dr. Bardach to inoculate their stock, and in two days there died 3,552 sheep, 1,200 horned cattle, and some hundreds of horses. And M. Paul Bouillier, the well-known veterinary surgeon and officer of the district of Eure-et-Loire, after four years' experience, tells us in a letter to the Prefect, from which I quote, that "splenic inoculation has had but one result—that of causing the wholesale death of ten times more animals in France than are annually lost in the natural retail manner. Among hundreds of examples," he says, "I will cite three. M. Grandchamp, farmer at Tremblay, lost 5,000 francs' worth of horses, cows, and sheep, which perished from the effect of splenic vaccination." Again, M. Fournier, veterinary surgeon at Angeville, inoculated 400 sheep, and in a few days 60 died. Again, the Mayor of St. Germain and M. Marcel Lebrun had their sheep inoculated by M. Ernest Bontet, veterinary surgeon. "Well, Sir," he adds, "they lost between them as many sheep as have died in all the thirty communes where I practise veterinary medicine (where no inoculation goes on), and forty-five times more than were lost by the five other farmers who own sheep in the same district. It is by millions," he continues, "that we must set down the losses caused in France by splenic inoculation."

Dr. Klein, reporting to our own Local Government Board, says: "The experiments with both lots of vaccine showed that no immunity whatever was conferred. Every one of the animals under treatment—thirty-four in all—died of typical anthrax after vaccination according to directions." Dr. Klein concludes his report with these words: "My method of using the fluids for inoculation absolutely precludes any accidental contamination, and hence these experiments must be accepted as perfectly reliable. This country is comparatively free from anthrax, and, therefore, the introduction and use of this so-called vaccine seems to me most dangerous and capable of producing incalculable mischief."

Now, Sir, if in face of these facts (which could be multiplied if necessary) veterinary surgeons tell us that they have vaccinated a number of stock without producing any ill effects whatever, and that, in fact, the animals are not one whit the worse for what has been done, it goes without saying that they must (unwittingly, of course) have been using some innocuous fluid which has lost its power, and become impotent either for good or evil. My statement (which your correspondent questions)—namely, that the health and vital power of the animals subjected to real inoculation is so depressed that they die in very large proportion from various other diseases from which non-inoculated animals are free—is founded upon experiments which were carried out in Buda-Pesth and Kapavay, in the report of which, quoted by Surgeon-General Gordon, I find the following: "We cannot overlook the fact that after protective inoculation, the deaths in which *post-mortem* examination indicated other diseases, such as pneumonia, pericarditis, catarrh, distoma, strangles, and other diseases, occurred exclusively amongst the inoculated animals, and, from a practical point of view, it is pretty much the same whether the loss be caused by anthrax or other diseases." Your correspondent will also find Professor Koch's remarks to the same effect in the *BRITISH MEDICAL JOURNAL* for November 3rd, 1883.

As to the risk to human beings from the ingestion of the flesh of inoculated animals, I may mention that recently at Gorwell, Dorchester, twenty pigs which had been fed with the flesh of a beast slaughtered for anthrax, died within a few hours; a similar accident occurred some time ago on the farm of a friend of mine in this neighbourhood. It is well known that the bacilli of anthrax when inoculated into the flesh multiply enormously (hence cannot be attenuated), pervade the whole organism, and, as in the case of fatal anthrax mentioned by your correspondent, have been detected in the milk and other secretions. What is to prevent, I ask, those who partake of the flesh of really inoculated animals, and who like their meat underdone, *bien saignant*, or who are fed on the milk, butter, or cheese of such animals, from contracting anthrax like the pigs in question? Professor Penberthy assures us that a recently inoculated animal is not likely to be slaughtered; but inasmuch as the beast was quite healthy to start with, why, in the name of common sense, could he not let it alone? I am told that he gives it anthrax in order to prevent its having anthrax, which does not sound very reasonable, especially when we reflect that one attack of this disease by no means prevents the patient from having another (see cases reported by M. J. de Jarnowski). No doubt while actually infested with the artificially imported bacilli, there may be a certain amount of conferred immunity; but even this is denied by Koch so far as natural infection is concerned; and your correspondent himself admits that the period during which the beast is infected ("virulent of anthrax") is a very short one; in fact, speedily passes away; and when the animal recovers (if it does recover), it is undeniably with impaired health, a damaged physique (farmers say the beast is never himself again), renewed liability to infection, milk not safe to use, and flesh, infected or not, that no one would eat if they knew what they were doing. I have already quoted the unequivocal condemnation of this system by Professors Koch and Klein and the Hungarian Commission, and must say, for my part, that I quite agree with Professor Peter, the well-known successor to Trousseau, that it is time to

raise a cry of alarm, and call upon our Minister of Agriculture to take steps to stop a practice which is indefensible in theory, cruel in practice when really carried out, and disastrous in results.

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