

Veterinary.**Tuberculosis in Cattle.**

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Since my recent article in the *Advocate* on this subject, I have had numerous conversations and enquiries from prominent agriculturists and others relating to tuberculosis, its contagious character, and the danger that may be incurred by the milk or meat of cattle affected with the disease being used as food by the human race. This must be my excuse for again recurring to it.

It is now quite generally recognized by scientific men that tuberculosis is a disease that is capable of being transmitted from the lower animals to man, and vice versa, from man to the lower animals. Its prevalence in cattle is well known. At a recent meeting of the British Medical Association, one medical gentleman stated, on the authority of a London meat inspector, that eighty per cent. of all the meat sold in the London market had traces of tubercular taint; others claimed fifty per cent., and some put it as low as twenty-five per cent. This is certainly an alarming state of affairs. The prospect of even one-fourth of the cattle of the country being affected with tuberculosis, and their meat and milk unfit for human food, is almost appalling. It may dissipate some alarm if I give here some extracts from Prof. Williams' admirable work on Veterinary Medicine. In describing "caseous and calcareous tumors non-recognizable prior to death," he says:—"These masses called 'angle berries,' or 'grapes,' by butchers, vary in size from that of a small pea to a hen's egg, or larger. They are often confluent, and one apparent mass sometimes weighs many pounds." After describing their microscopic appearances, he says:—"The flesh of such animals is very often of a fair or even superior description, and the only question of importance is, whether the flesh is fit for human food. This question is asked because very often such flesh is condemned by market inspectors. If, however, we can only train our minds to consider that these masses are mere growths—that in fact they are no more injurious to the quality of the flesh than warts or other excrescences on the skin, the feeling of fear may be overcome. I am of opinion that these excrescences are mere results of a previous and perhaps distant inflammation; that the products of such inflammation are thus localised, whereby they are prevented from injuring the general economy; that, in fact, they are as much external to the general economy of the animal as so many excrescences in the skin, or tumors in any part of the body, and that if they are carefully removed, and the membranes and structures in which they are embedded, and from which they grow, carefully dissected out, the flesh is perfectly good, fit for any man's table, and that it is a pity to destroy valuable and nutritious human food because the term tuberculosis has been applied to the tumors." In our consideration of this view it must, of course, be understood that the animal at the time of slaughter must be, so far as we are able to discover, in a perfect state of health, without febrile symptoms, and all the organs and functions of the body in a perfectly natural and healthy state. Indeed, if there should be a febrile, unhealthy or depraved condition of the system at the time of slaughter, the meat of an animal

could scarcely be in the "prime condition," or of a "superior description," but would be flabby, bad-colored, and show evidences of its unhealthy condition. And can we believe that the meat of an animal suffering from any disease whatever of a febrile character can be a safe article of diet? In fact, I believe that the meat of an animal that is butchered even during its periodical season of "heat" is not as good as at other times.

There cannot be a doubt that, from the numerous experiments, and more especially from the discovery and identification of the "microbe" of tubercle, that tuberculosis is a contagious disease, and that certain animals and in certain different states of the system are more liable to contract the disease—that the meat or milk of animals that may contain the germ or microbe of the disease is not a safe article of diet. Yet it appears evident that the contagious principle, being localized and encysted in these tubercular deposits, in those cases in which the animal appears to be in a perfectly healthy and thriving state, that the "virus" of the disease is not dispersed or disseminated over the system. If it were, an unhealthy condition would be evident. Therefore, in these conditions neither the meat nor the milk would be impregnated with the "virus."

As before remarked, recent experiments and microscopic research have sufficiently proved the contagious nature of the disease, and no one of my own profession who endeavors to keep pace with the advancing knowledge of the day would now express a contrary opinion. Still, there are many influences that may tend to check its dissemination, both among the human and the brute creation. During a practice of almost twenty years in the county of Ontario, much of which time has been amongst some of the most valuable herds of Shorthorns, I have seen and made post-mortem examinations on many cases of tuberculosis. I have seen single cases at different times in several of the well-known herds, in which fresh and imported animals are continually being introduced; but in no instance can I recollect more than a single animal at one time being affected; and in no instance would I, simply from my own experience, suppose that the disease had been communicated from one animal to another. The disease has not appeared to spread, though no special attention to isolation was at one time adopted. Of course, seeing the reports of the prevalence of the disease in Great Britain, and knowing that it also exists in this country, it might be impossible to state positively that no tubercular deposit existed in an animal, and it may exist, as before remarked, but may not be recognizable unless by a post-mortem examination. Also, it may be an easy matter to recognize in an animal that a certain organ or tissue of the animal economy is affected; that the organ is not performing its functions properly; but in many cases he would be a rash practitioner, or a very ignorant one, who would venture to state definitely that tubercular deposit was the cause of the trouble.

A medical gentleman, an M. P., stated in committee during the last session of Parliament, that he believed a great many people die in this country from tuberculosis, and it is not detected; that medical men find great difficulty in detecting tuberculosis during life; that post-mortem examinations reveal tubercular deposits in every organ of the body, and that the medical man has

no means in his power during the life of the patient to know whether or not, as a matter of fact, that tuberculosis exists, unless in the sputa, where it comes from the lungs, and may be discovered by the microscope; and he believed that hundreds of people die in this country from tuberculosis, but that the disease is not actually identified in consequence of not being allowed to hold post-mortem examinations. In this respect the veterinary profession has certainly the advantage of the sister profession, as post-mortem examinations can almost always be made. And in cases of outbreaks of contagious diseases the advantages to be derived from our ability to make post-mortem examinations in all stages of disease, without waiting for the animal to succumb to the disease itself, as animals may be slaughtered in any stage of disease for that purpose. This is of inestimable advantage in prosecuting our knowledge of the true pathology of disease.

It appears to be pretty generally acknowledged that tuberculosis is on the increase in this country, and a committee of the Dominion Parliament has been appointed to investigate the subject. Any measures that can be devised to effectually abate its ravages would certainly be of inestimable benefit to the country at large.

But I fear I am trespassing too much on your space, so may again recur to this subject in a future issue of the *Advocate*.

The Apiary.**That Grant of \$25.00.**

We notice in a periodical published on bees, a comment upon our remarks regarding the special grant of \$25.00 offered by the O. B. K. A. It is trying to blind its readers by throwing them on the wrong scent, and talks about the \$25.00 grant to affiliated societies. The two, as it well knows, are very distinct; but its only hope is that its readers are more ignorant than the contributor of the article censuring the association for the grant of government money in Toronto, when the exhibitions in London and other places do not receive like privileges. No, no; we know full well what we are talking about, and so does the one feigning ignorance.

Conventions.

Perhaps there is nothing, aside from periodicals, which so benefits a pursuit as the meeting in convention of those interested in that pursuit. Points which require solution may be discussed, or an idea secured, which leads to an entirely new and valuable train of thought. Amongst bee-keepers these conventions are very general, and the most important of them all is the North-American Bee-Keepers' Association. Their last meeting was held October 3, 4, 5, at Columbus, Ohio. Although the season has been a very poor one for bee-keepers, the attendance was very fair, and embraced four authors of standard works in agriculture. A new departure was made in the way of a programme. There were but few papers; and a programme committee selected topics for discussion for each session, with a leader for the topic. Whilst many and lengthy papers should be avoided, a medium might be advantageous; and short papers, interspersed with lengthy discussions, would bring out and concentrate discussion. Many topics of interest were brought up, and the sessions thoroughly enjoy-