

say, at once, although not yet very prevalent, it is sufficiently so, in view of all the facts which I have brought before you to-night, with others yet to note, to give rise to much uneasiness, and indeed to more than this, if some decided action be not soon taken with the view of lessening the danger; as by a system of inspection of both cows and slaughtered beef, and of the education of the farming community in relation to the whole subject. I think I can bring before you evidence which would convince anyone, that now is the time to take some action, in order to avoid or prevent much more serious consequences in the near future.

I will first say a few words relating to the early symptoms of the disease in cows. A peculiarity of the disease which much increases our difficulty in deciding upon the point now under consideration, and which must not be overlooked, is the obscurity of the early symptoms. As Prof. Walley says: Under certain circumstances animals may become extensively diseased, and yet no suspicion of the fact be aroused in the minds of the owners of, or the attendants upon, such animals.

According to Fleming, the first perceptible signs are general dulness and indifference, and less activity and energy; with heightened sensibility of the skin, especially over the withers, back and loins, manifested by marked shrinking of the animal if these parts be pinched. There is exaggerated sexual desire—marked by continual or frequent periods of rutting; such animals being known as "bullers" (in France, as *taurelières*). They rarely breed, however, though they may now fatten or yield as much milk as if quite well. The milk is more watery, of a bluish tint, and less rich in nitrogenous matters, fat and sugar, but containing a larger proportion of alkaline salts. There is a dry, deep, though feeble cough, especially on exertion of the animal or on sudden change of temperature of the atmosphere, or on compression of the windpipe. There is not generally expectoration or nasal discharge, though at a later period exertion causes a flow of glairy mucus streaked with thick flakes. The walls of the chest become more sensitive on percussion, or thumping, and there is a duller sound. By placing the ear on the chest one may often hear, instead of the smooth respiratory murmur of air passing in and out the lungs, as in health, a harsh, rasping or loud blowing sound,

especially in some parts of the lungs. The heart's action is at times quicker and stronger; the skin, particularly towards the base of the horns and ears, is hot and dry; intermittent bleeding from the nose may take place; lameness, too, and enlargement of the glands about the neck and elsewhere. The above symptoms may continue, with little change, for months, but if no preventive or curative measures be adopted, the symptoms become intensified, and what is called the second stage of the disease is reached, and finally the third stage, with weak digestion, diarrhoea, emaciation, etc., but the symptoms of which I need not here detail.

Vet.-Surg. Grissonnanche, at the Paris Congress on tuberculosis, in July, stated that the disease is characterized from the first by tumefaction of the pharyngeal glands, irregular respiratory movements, a harsh friction sound on auscultation, with a short cough not easily provoked except by sharp percussion on the thoracic parietes, a procedure evidently causing pain to the animal.

Veyssiere, at the same congress, said that he had seized a very fat and apparently well-conditioned cow on account of symptoms of a local tuberculosis, and a post-mortem examination revealed tubercular lesions in the lungs and liver. He had injected some of the expressed juice of the meat of this cow into two rabbits, and both animals had died. Guinard said he had seen a lady patient drinking the fresh blood from a fine appearing animal, which was afterwards found to be tuberculous, and was condemned. You will remember that the pigeon, submitted by Prof. Mills, was fairly well nourished when it died.

From these facts it seems clear that the disease may be more common in any locality or country than would be apparent to the public or to any ordinary observer. Then it must be borne in mind, in considering the question of the frequency of cases, that if cows were allowed to die naturally, as human beings are virtually allowed to die, the proportion or number of cows succumbing to the disease would in all probability be much greater. Many a farmer, too, on the first signs of any failure in the health of his animal, will, from self interest, almost instinctively, at once sell it to the butcher.

Before bringing evidence before you as to the degree of prevalence of the disease in Canada, allow me to briefly quote authorities as to its prevalence in other countries: Dr. Heath, President