

States was "of a milder form than the European disease", many even deny its existence, and one leading British Veterinarian went so far as to insist that the disease as seen by him was Sporadic Pneumonia, and he had immediately several echoes on this side of the Atlantic who sought to bring themselves into notice by ranging themselves in line with him on the sporadic theory—but, echo like, they soon died away.

The great danger to be apprehended from these diseases arises from the subtle nature of their contagiousness. Pleuro-pneumonia, Foot and Mouth Disease, Hog Cholera and Scab on Sheep, are all spread through the channels of commercial communication, notably steamboats and railroad cars, and yards. Unless by a prolonged quarantine or actual prohibition it would seem to be almost impossible to prevent their spread once they gain a foothold in a country.

When we consider the numerous intermediary agents of communicating the virus, through the clothing of attendants, ropes, halters, blankets, hay, bags, buckets, feeding troughs, &c., which retain the virus for months in so active a form that if brought in contact with healthy animals the disease is sure to be communicated.

Take, for instance, the outbreak of Foot and Mouth Disease in February last at Portland, Me. The imported cattle were being landed at the wharf—a farmer driving a pair of black oxen ignorant of any danger followed them admiringly for a couple of miles on his homeward road.

Next morning he took his oxen to the forge to be shod, another pair of oxen were shod shortly after his—the result was that the black oxen sickened and infected his other cattle, the other oxen became infected at the forge, they carried the disease home with them and from these centres the disease spread till probably six hundred animals were affected.

Take the history of Pleuro-pneumonia in any country in which it exists and you will find similar history of its extension.

In Australia as related by Mr. Fleming :

"It was introduced by means of an English cow imported into Victoria and landed in Melbourne in 1858. When the disease was discovered among the imported cattle, steps were at once taken to eradicate it. All the cattle on the farm were paid for by private subscription and destroyed, and the farm placed in quarantine. Unfortunately, however, the quarantine was not strictly maintained, and a greedy, ignorant neighbour, who owned several teams of working Bullocks which he usually employed in carrying on the roads, seeing the good grass in the infected paddocks, put his cattle into them during the night and removed them at day break. His cattle soon became infected and as he shortly afterwards sent his teams on the roads on a journey to the border of the colony they spread the disease in all directions as they went. His other cattle mixed with his neighbours and in this way the malady was diffused around his own farm.

The great danger from this disease is its insidiousness, were it a rapidly spreading death dealing plague like Rinderpest, it would not be so dangerous, as it would then be more liable to rouse the people and government to united action for its effectual suppression. According to Fleming :

"The death rate from Pleuro-pneumonia may be estimated at from 15 to 20, and in many instances as high as 70 per cent. In mild invasions they may only be 20 to 25 per cent but in those of a severe character they may amount to 70, 80 or 90 per cent.

In general however the loss from death and from animals slaughtered or disposed of on account of the disease may be estimated at about 60 per cent. This nevertheless does not represent all the harm wrought by the Lung Plague. What with the long duration of the malady, the slow and protracted

convalescence, the consecutive disorders, perhaps permanent loss of condition, the expense of medical treatment, the non-productiveness of the animals for months, &c., all this makes Pleuro-pneumonia one of the most disastrous plagues that can affect a cattle producing country.

The truth of this may be easily verified in the history and literature of the malady particularly in England and Holland, two countries in which it was allowed to extend and prevail for many years before concerted action was resorted to for its suppression.

In England the loss in six years amounted to a million head, while in Holland in 230 parishes the yearly loss has been reckoned at 49,661. In France the disease has caused great losses in the northern departments where there is more importation and movement of cattle, owing to the facility with which they can be fed on the residues of distilleries and sugar refineries. According to statistics of the losses caused during seven consecutive years in 217 communes of the Department of the North, it would appear that the annual mortality in a bovine population of 280,000 was 11,200 or a total in nineteen years of 218,000 head, whose value Reynal estimated as amounting to no less than fifty-two millions francs. In Australia the losses in thirteen years is estimated at about 1,404,097 head which if valued only at \$30 each would amount to \$42,122,910, from that disease alone.

In England during six years ending 1860 the losses are estimated at considerably more than 1,000,000 head, or at least \$60,000,000, or \$10,000,000 per year.

Gentlemen, these are the facts and figures which elicited from Sir Richard Temple when speaking of this great and promising country of ours the emphatic expression so full of meaning, so timely a warning: "For heaven's sake try to keep out cattle disease." Knowing well that free from disease in our herds the agricultural progress of Canada cannot be hindered, but knowing well too the difficulty which will be encountered in fighting against so many insidious sources of infection, nothing but the most stringent measures and careful watching will avert the great calamity, but that the disease can be kept out I have not the least hesitation in affirming.

What position is Canada in with reference to cattle disease?

Canada to day is free from all contagious disease, thanks to the wisdom of our government in listening to and acting on the advice of those who had made a special study of the question. The establishment of the quarantine at Quebec in 1876, was the initial step in the formation of the quarantine system which has kept Canada in the proud position of being the only large cattle producing country in the world free from disease, whose cattle can enter alive any market in the world, placing them at a premium of about \$20 a head over any other cattle, or a million and a half dollars on the exported cattle per annum. Not this alone, but the development in stock breeding, both in numbers and quality, the establishment of large ranches where cattle are bred in thousands, a general and very marked improvement in agriculture to meet the feeding requirements, the stimulus which all this has given to immigration of the proper class of farmers to our great north-west all confer advantages on the country which cannot be estimated, and in all this we feel justified in claiming that the veterinary profession as such has played no unimportant part, in seconding the efforts of the government in conducting and carrying out the quarantine system.

Of the importance of the livestock interests in the commercial relations of the country, I have only to mention the fact that no less than \$208,633,600 are invested in live stock in Canada. That the European export trade alone amounts to over \$8,000,000 per annum and that were it not for this