

poisonous plant which affected young lambs more than the older ones. There was one disease which was somewhat prevalent in the North Island of late years, and perhaps Mr. Bidwill could give some information about it. It was called the "red bag;" it was a dropping of the womb. In some parts of the northern provinces last year there was a considerable death-rate. In one year 460 ewes had died. Nearly every year his company lost two or three hundred. There seemed to be no way of dealing with it. Perhaps Mr. McClean might say whether there was any known remedy, as they knew of none. The general impression was that it was spread through sympathy, as a great many of these womb complaints were sympathetic. They found that if a cow slipped a calf all the females in the same byre were often similarly affected. "Red bag" might be of a similar nature. He would be very glad if he could elicit any information on this matter which might be of use to sheepgrowers.

Mr. BRUCE thought the better way would be to refer it to the Stock Department, and get a report from the Government Veterinary Surgeon.

Mr. McCLEAN said that so far this year there had been no reports in reference to unusual mortality. Last year they had a report on the unusual mortality among sheep, from the Wairarapa Valley especially.

Mr. PARK thought "red bag" was due to a relaxed condition of the womb. The os became swollen and protruded from the vulva. If the animal were placed with the hind-quarters elevated, and manipulation applied to the os, it could be returned, and there retained until after calving or lambing. In this way it would become reduced, and lambing or calving would go on without any injury or ill effects to the animal. There was no possible chance of inversion of the womb while the fœtus was *in utero*.

Mr. McCLEAN said that for the last two years there had been a large number of cases of inversion of the womb before lambing.

Mr. BIDWILL might say, in answer to Mr. Roberts, that every year "red bag" was prevalent amongst the sheep in his district. They found that generally in wet seasons there was a heavier mortality, and the sheep affected were of all ages: in fact, he did not think there were so many among the young ewes as among the old ones. This year had been a wet season, and there had been a larger number of sheep affected by this "red bag" than he had ever remembered before. It had been stated that one man, who had a large number of sheep affected by "red bag," put a stitch into the vagina, and offered the sheep for sale. If such a thing did take place he thought it was a most reprehensible practice, and one which the Stock Department ought to take notice of.

THE FROZEN-MUTTON TRADE IN NEW ZEALAND.

Mr. BRYDONE read the following paper:—

For some years prior to 1881 the attention of stock-breeders in New Zealand was directed to the serious question of finding a profitable outlet for their fat sheep and cattle, an enormous increase in the numbers of these having taken place owing to the large extent of country being brought into cultivation, and the natural capacity of the colony for growing excellent root- and grass-crops.

Up to that time the only outlets for fat stock were the local markets and the boiling-down pot. The requirements of the former were not nearly sufficient to absorb the supply, and the returns from the latter were so poor that little encouragement was held out to breeders in that direction, and the outlook was anything but pleasant.

The carrying of dead meat from America to England by the aid of the Bell-Coleman and other cold-air freezing-machines, generally known as the chilling process, having succeeded, and as it was well known that fish and animal food were preserved in good condition for long periods in Canada and other cold climates, people began to experiment with the freezing of butcher-meat by artificial means with some degree of success. At last some enterprising gentlemen connected with Australia made experimental shipments, some twelve or thirteen years ago, from Australia to London, which were so far successful that freezing-works were established in Melbourne, and at Orange, in New South Wales; but, after being in existence for some time, they collapsed, and, until a short time ago, the exportation of frozen mutton from Australia has not received much attention.

New Zealand, however, took up the running and has succeeded beyond the most sanguine expectations of every one, and has made a thorough success of the trade. I think I may say that the New Zealand and Australian Land Company, with which I have been connected for the last twenty-five years, was the first to initiate freezing in New Zealand. The company possessed large flocks of sheep, principally half-breds, and, having improved their estates, were fattening great numbers of cross-bred sheep, which were simply valuable for their skins and tallow, 70lb. to 80lb. sheep being only worth 7s. 6d. or 8s. 6d., mutton of the best quality being really of no value, and put through the digester to make into manure. It was the same all over the colony, and we were at our wits' end to know what to do. Meat-preserving had been tried for a few years, and, after a good deal of English and colonial capital had been invested and lost, it had to be practically abandoned. Well, the new idea of freezing by the dry-air system looked as if it was feasible, and my company thought it worth spending some money in testing it. There were no freezing-works in New Zealand at the time, but we entered into an agreement with the Shaw-Savill and Albion Shipping Company to fit up their sailing-ship, the "Dunedin," to freeze on board, and carry the cargo to London at a freight of 2½d. a pound. No one here knew anything about freezing; but I took a run over to Orange and Melbourne, and got a few wrinkles, which were of use in the preparing and shipping of the first cargo which left these shores. The pioneer freezing-ship arrived in Port Chalmers in November, 1881, in command of Captain Whitson, a most capable man, well qualified to undertake the important experiment which was committed to his care. We erected a temporary killing-place at Totara, about seventy miles from the port, killed about two hundred and fifty sheep a day, sent them down by rail, froze them on board, and then stowed them away in the frozen chambers. Everything went on fairly well excepting that one day the crank shaft of the engine broke, and, there