

disease has gone; I have known, for instance, of cattle being slaughtered years after, showing the old adhesions, although all traces of disease had gone; the adhesions being simply the effects of the previous disease. Would your percentage cover such cases as that?—No.

43. *Mr. Kerr.*] If there were disease would the lung be attached to the ribs?—It depends upon how it is attached; if it is attached and the tissues are gone, disease is still there; long after disease has gone, traces of it will be found in the liver. I have only noticed disease where the tissues are effected.

44. What is the percentage of sheep suffering from disease such as you have described?—It would be more than 4 per cent., it would be fully 7 per cent.

45. *Mr. Buchanan.*] In what forms?—The same forms as are seen in cattle—exactly the same forms: tuberculosis, pleurisy, consumption; in fact, all the diseases that cattle are liable to, with exactly the same symptoms.

46. In that 7 per cent., what would be your estimate of the number suffering from tuberculosis and consumption?—Taken together, there would not be more than 3 per cent.

47. The balance would be cases of pleurisy?—Pleurisy and cancer.

48. Now, as to inspection, are you aware that some of the meat-supply for large towns is killed at long distances from town—up as far as Hawera, in the case of Wellington?—Yes, that is the worst part of it, and shows why these suggestions of mine cannot, I am afraid, be carried into effect.

49. You have no suggestion to offer to the Committee which would enable inspection to be carried out?—The only effective suggestion I could make would be that you should make it prohibitive to slaughter cattle except in public abattoirs. Diseased cattle would then be destroyed—that is, consumed by fire. I have seen cattle slaughtered that were not fit to be used for human food; it was thrown into a destructor, and in less than a quarter of an hour the whole beast was consumed.

50. *Mr. Buchanan.*] Have you any information to give the Committee relative to milk-supply?—No, I have no information as regards that. I take care to get my milk from a clean dairy, that is all I know.

51. You have no information on that subject?—None whatever.

52. *Mr. Duncan.*] You say that disease in sheep and cattle is more prevalent on the West Coast than on the East Coast. Can you give us the percentage of difference?—No; but I can tell you there is a good deal of difference. Cattle from Masterton are far more healthy than they are about Palmerston. Why it is so I cannot tell, but I know that is the fact.

53. *Hon. Mr. Pharazyn.*] The reason is, I suppose, that it is more dry on the East Coast?—I have no doubt that is the reason. I have been in one place where there were fifty-three sheep killed, and they had only sixteen healthy out of the fifty-three.

54. *Mr. Buchanan.*] That means far more than 30 per cent.?—Yes.

55. Does the evidence you have given to the Committee apply to both sheep and cattle?—Yes, on the West Coast it does; there they are not near so healthy.

G. A. MARCHANT, Esq., M.H.R., examined.

(Evidence not taken down.)

TUESDAY, 22ND JULY, 1890.

JOHN F. McCLEAN, Government Veterinary Surgeon, and Sub-Inspector of Sheep and Cattle, examined.

*Witness:* I have had experience in tuberculosis, and so far as I have seen it is fairly prevalent in New Zealand. I should say from 4 to 7 per cent. of all the beasts slaughtered in the Wellington slaughterhouses have suffered more or less from this disease, and the proportion is probably larger amongst the dairy cattle around Wellington. The cows likely to be soonest affected were often the best milkers, because the process of long continued milk-secretion has an exhausting effect. In this case there was an analogy between the condition of the animal and that of a man, who by some exhausting occupation fell into, or was predisposed to fall into, a decline. There is a bacillus, and the disease is supposed to be produced by the entry of the bacillus into the system. In the case of a cow that is a good milker, the system is weakened by the strain of milk-giving, and the condition thus produced favours the development of the bacilli in the system. I know of no direct experiments in the transmission of the disease from cows to men; but I have experimented in transmitting, by means of inoculation and otherwise, the disease from cows to rabbits and guinea-pigs, and birds; and tuberculosis has always been produced in such cases. I know, however, that it has been proposed in England to test this matter with condemned criminals who are awaiting execution.

*Hon. the Chairman:* Yes. In fact an experiment of this kind was made in Melbourne in 1885, in the case of a man who was suffering from gangrene. The man strenuously objected to amputation, and death was therefore absolutely certain to ensue. This being so, an experiment was made in his case by means of inoculation. The experiment was made a week or ten days before the man's death, and it was effective to some extent in showing that the disease was transmissible to the human body.

*Witness:* The disease may be transmitted by means of pus, sputum, or any tissues containing the bacilli, and it is not advisable to run any risks. In fact, every precaution should be exercised wherever the disease is known or suspected to exist. I am of opinion that tuberculosis, or rather the condition predisposing to tuberculosis, is hereditary. It happens in this way: When a cow in a tubercular condition gives birth to a calf she bequeaths a weakened condition of all the tissues generally to the calf—a condition commonly called scrofulous. Being in that condition, the calf