

1893.
NEW ZEALAND.

REPORT,

MINUTES OF PROCEEDINGS, RESOLUTIONS, ETC.,

OF THE

AUSTRALASIAN STOCK CONFERENCE,

HELD IN WELLINGTON IN OCTOBER, 1892.

Presented to both Houses of the General Assembly by Command of His Excellency.

WELLINGTON.
BY AUTHORITY: GEORGE DIDSBURY, GOVERNMENT PRINTER.

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AUSTRALASIAN STOCK CONFERENCE.

CONFERENCE OF CHIEF INSPECTORS OF STOCK, VETERINARY SURGEONS, AND STOCK-BREEDERS OF THE AUSTRALASIAN COLONIES, HELD IN WELLINGTON IN OCTOBER, 1892.

REPORT.

THE Conference commenced its sittings on the 25th October, and concluded its labours on the 31st October. It was called together by the Hon. the Premier of New Zealand for the purpose of considering the regulations relating to the introduction of stock, the prevention of disease in stock, and other subjects.

The following were the representatives of the several colonies:—

New South Wales ...	...	Mr. Alexander Bruce, Chief Inspector of Stock.
Queensland ...	...	Mr. P. R. Gordon, Chief Inspector of Stock.
Tasmania... ..	...	Mr. T. A. Tabart, Chief Inspector of Stock.
" ...	...	Mr. Archibald Park, M.R.C.V.S., Veterinary Surgeon.
New Zealand ...	...	Hon. Sir John Hall, K.C.M.G., Stock-breeder.
" ...	...	Mr. John Roberts, C.M.G., Stock-breeder.
" ...	...	Mr. Thomas Brydone, Stock-breeder.
" ...	...	Mr. William Boag, Stock-breeder.
" ...	...	Mr. W. E. Bidwill, Stock-breeder.
" ...	...	Mr. Coleman Phillips, Stock-breeder.
" ...	...	Mr. W. F. Lawry, M.H.R., Stock-breeder.
" ...	...	Mr. J. McNicol, Stock-breeder.
" ...	...	Mr. John D. Ritchie, Chief Inspector of Stock.
" ...	...	Mr. John F. McClean, M.R.C.V.S., Veterinary Surgeon.

Victoria, South Australia, and Western Australia, were unrepresented.

The following is a copy of the circular-letter, dated the 11th July, 1892, addressed to the different Australasian Governments:—

SIR,— The Premier's Office, Wellington, 11th July, 1892.
As the time is approaching for the triennial meeting of Chief Inspectors of Stock, Government Veterinary Surgeons, and stock-owners of the Australasian Colonies, I have much pleasure on behalf of my Government to convey a cordial invitation that the Conference be held in New Zealand.

I shall be obliged by your advising me at the earliest opportunity if it will be convenient for your representatives to attend, so that the necessary arrangements can be completed.

I would suggest that the Conference be held in Wellington on the 25th October next.

I have, &c.,
JOHN MCKENZIE,
For the Premier.

All the delegates were present with the exception of the Hon. Sir John Hall, K.C.M.G., Mr. W. E. Bidwill, and Mr. McNicol, who, it was announced, would arrive later.

The delegates were introduced by Mr. Ritchie, Chief Inspector of Stock, who read the following letter from the Hon. J. McKenzie, Minister of Agriculture, apologizing for his being unable to attend through illness:—

GENTLEMEN,— Minister of Lands' Office, Wellington, 25th October, 1892.

I have to express great regret that the state of my health prevents my being present at the opening of the Conference this morning to welcome the representatives of the Australian Colonies and the stock-owners of New Zealand. At the same time, I have to express my gratification at the decision of the Governments of Queensland, New South Wales, and Tasmania to accept the invitation of the New Zealand Government to hold the Conference here.

I trust the outcome of this Conference will be of mutual benefit to all the colonies interested, as I have every confidence that the business brought before the Conference will receive such attention as the importance of the several subjects merits.

I need hardly add that it will give me the greatest pleasure to render you every assistance in my power, although I shall unfortunately be absent from your sittings; and again thanking you for your presence,

I have, &c.,
JOHN MCKENZIE,
Minister of Agriculture.

The Members of the Australian Stock Conference.

Mr. Ritchie thereupon called upon the meeting to elect a chairman, when it was unanimously agreed that the Hon. Sir John Hall, K.C.M.G., be asked to take the chair on his arrival, and that, in the meantime, Mr. John Roberts, C.M.G., be Acting Chairman.

The meeting then proceeded to consider the resolutions passed at the Australasian Stock Conference held in Melbourne in November, 1889.

The following resolutions were passed:—

RESOLUTIONS.

PRELIMINARY.

1. That each colony represented have three votes.
2. That where a colony is represented by the Chief Inspector of Stock and another delegate, the former shall have two votes.
3. That a notice of motion must be in the hands of the Chairman not later than the day preceding the proposed discussion thereof, unless the matter is considered urgent by the Conference.
4. That no member of the Conference be allowed to speak on any subject under discussion for more than ten minutes, but that such time may be extended five minutes or a still further period by the indulgence of the Conference. The mover of any motion shall have the right to reply.
5. That the following be the subjects for discussion :—
 - (1.) Regulations regarding the introduction of foreign animals. Foreign diseases, *i.e.*, diseases not known in Australasia.
 - (2.) Regulations regarding the introduction of Australasian animals—
 - (a.) By sea.
 - (b.) By land.
 - (3.) Regulations regarding disease—
 - (a.) Scab.
 - (b.) Catarrh.
 - (c.) Fluke.
 - (d.) Worms.
 - (e.) Foot-rot.
 - (f.) Anthrax.
 - (g.) Pleuro-pneumonia.
 - (h.) Tuberculosis.
 - (i.) Stringhalt.
 - (k.) Coccidium and actinomycosis.
 - (l.) Prurigo (horse-mange).
 - (4.) Rabbit-pest.
 - (5.) Frozen-meat trade.
 - (6.) Stud-book for Australasia.
 - (7.) Any other subject which may be suggested and agreed to by members of the Conference.
6. That the term "Australasian Colonies" comprises the colonies on the continent of Australia, also Tasmania and New Zealand; and that the term "foreign" includes all other parts of the world.

ANIMALS AND THINGS PROHIBITED.

7. That the following foreign animals and things be prohibited :—
 - (1.) Cattle, sheep, and pigs from all foreign countries and colonies other than Great Britain and Ireland, unless they have been fourteen days in Great Britain or Ireland.
 - (2.) Goats, deer, antelopes, llamas, buffalo, and any other ruminants from all foreign colonies and countries, unless for a zoological society.
 - (3.) All fodder and litter with which foreign animals have been in contact from any foreign colony or country, or from any foreign vessel.

INTRODUCTION OF FOREIGN ANIMALS.

8. That the following foreign animals be admitted subject to regulations framed on the resolutions of the Conference :—
 - (1.) Horses from any colony or country.
 - (2.) Camels from any colony or country.
 - (3.) Cattle, sheep, and pigs from Great Britain or Ireland.
 - (4.) Goats, deer, llamas, antelopes, buffalo, and any other ruminants from any colony or country, if intended for a zoological society.
 - (5.) Dogs from any colony or country.
9. That the following be included among the regulations under which foreign animals and things not prohibited may be admitted into any Australasian colony :—
 - (1.) That twenty-four hours' notice be given by the owner of the animals of his intention to land them.
 - (2.) That the animals be accompanied by a declaration by the owner and a certificate by the Inspector or by a qualified veterinary surgeon in the district from which they start.
 - (3.) That no animals, nor any fodder, fittings, or effects with which foreign stock have been in contact, be landed without the written permission of the Inspector.
 - (4.) That notice be given to the owner when any stock are ailing or are about to be destroyed.
 - (5.) That notices be given personally, or left at the residence or place of business of the person for whom the notice is intended, or sent by registered letter to the address of such person.
 - (6.) That at least fourteen days' notice be given to the Chief Inspector of Stock of an owner's intention to introduce foreign stock.
 - (7.) That all cattle and sheep and pigs exported to Australasia be shipped from the ports of London or Glasgow.

- (8.) That the Agents-General for the several colonies be asked to appoint one (*i.e.*, the same) qualified veterinary surgeon at each port of shipment, to examine all stock intended to be exported to any of the colonies; such veterinary surgeon to give a certificate of health to accompany the animals.
- (9.) That animals intended to be introduced into any of the colonies, and all other animals on board the same vessel, be examined at the port of shipment by the veterinary surgeon appointed by the colonies, and be accompanied by a certificate from him that they are all free from infection, and that in their case the regulations have been complied with.
- (10.) That the skins of all animals which may have died or been slaughtered on board any foreign vessel during the voyage, and not destroyed or thrown overboard, be salted and securely packed in cases or casks, and not landed except for transhipment under the supervision of an Inspector.
- (11.) That a joint declaration be obtained from the captain of the vessel and attendant of the stock as to the health of foreign stock on board on arrival in port.
- (12.) That all stock intended for ship's use and all dogs arriving by any foreign vessel shall, within forty-eight hours of their arrival in port, be either removed to quarantine or killed under the supervision of an Inspector.

The carcases of any cattle, sheep, or pigs so killed may by instructions of an Inspector, and under his supervision, be sold and delivered ashore.

- (13.) That foreign animals intended to be landed in the colonies be examined on arrival by a veterinary surgeon and an Inspector of Stock, who shall report to the Chief Inspector of Stock whether or not such or any other animals on board such vessels are infected.
- (14.) That if foreign animals (except camels) are infected they be destroyed or disposed of as the Minister directs.
- (15.) That camels found on arrival to be infected with scab be dressed as the Chief Inspector directs.
- (16.) That if foreign animals are not prohibited, and are reported free from infection, and if the Chief Inspector be satisfied that they are not infected, they may, after being washed and disinfected when necessary as he shall direct, be landed for quarantine on sufficient bond and guarantee.
- (17.) That all foreign animals be conveyed by water, at the owners' risk and expense, to quarantine, and remain for the terms respectively prescribed for the different kinds of animals, at their owners' risk and expense, and that they be washed, dipped, or disinfected, as the Chief Inspector of Stock shall direct.
- (18.) That the quarantine for the several animals shall date from the day of landing, and shall be as follows:—
 - (a.) For horses, fourteen days.
 - (b.) For cattle, sheep, pigs, goats, deer, antelopes, llamas, and any other ruminants, sixty days.
 - (c.) For camels, ninety days.
 - (d.) For dogs, six months.
- (19.) That all foreign sheep landed in the colonies forthwith receive two or more dressings with tobacco and sulphur, or with lime and sulphur.
- (20.) That, on the expiry of the term of quarantine prescribed for foreign animals, they be examined by a qualified veterinary surgeon and an Inspector of Stock, and released on the order of the Chief Inspector.

10. That dogs be quarantined in the Government quarantine-grounds only.

11. That no foreign stock nor skins be transhipped without the permission in writing of an Inspector, and that no foreign stock be put on board any Australasian vessel unless such stock has undergone quarantine, and the regulations referring to foreign stock have otherwise been complied with.

12. That foreign stock, and the stalls and pens used by them, and the attendants' clothes and effects, on board a foreign vessel in any Australasian port be disinfected as the Chief Inspector may direct.

13. That Australasian stock coming into direct or indirect contact with foreign stock, or with infected stock, be deemed foreign or infected stock.

14. That if the Inspector at the port of arrival is doubtful as to the freedom of any stock from infection he may temporarily detain them on board ship, or remove them to some other vessel for a period not exceeding forty-eight hours, at the owners' expense, where they may be dressed or disinfected as the Inspector may direct.

15. That all stock during the period of quarantine be under the surveillance of a qualified veterinary surgeon.

INTERCHANGE OF AUSTRALASIAN ANIMALS.

16. That no colony be deemed to be a clean colony in which scab exists or has existed within the next preceding two years, and no sheep nor sheepskins shall be introduced except from a clean colony.

17. That no sheep shall be imported by vessels that have traded to any but a clean Australasian colony within the next preceding three months, nor by any vessel which shall within that period have had any sheep on board from any colony or country other than a clean Australasian colony; and the captain of the vessel shall, when required, make a declaration to that effect.

18. That no stock, other than sheep, shall be imported by vessels that have, within the next preceding three months, had on board any infected stock, or any stock from any colony or country

other than a clean Australasian colony; and the captain of the vessel shall, when required, make a declaration to that effect. Provided that cattle may be imported into any colony for immediate slaughter in quarantine, and under proper quarantine regulations.

19. That all stock intended to be landed shall be accompanied by a declaration from the owner, and a certificate by the Inspector, or a qualified veterinary surgeon at the port from which such stock were shipped, that they are not infected, and had not during the next preceding twelve months been infected; also that, unless they are intended for immediate slaughter in quarantine, as provided by the last preceding resolution, they are from a clean colony.

20. That, if the Inspector at the port of arrival be doubtful as to the freedom of any stock from infection, he may temporarily detain them on board ship, or remove them to some other vessel for a period not exceeding forty-eight hours, at the owners' expense, and they may be dressed or disinfected as the Inspector may direct.

21. That, if on examination by the Inspector or a qualified veterinary surgeon, and the production of the necessary declaration and certificate, the Inspector considers the stock free from infection, he may allow them to land.

22. That if the stock be found to be infected they may be destroyed or otherwise disposed of, as the Minister directs, without compensation.

23. That where an outbreak of disease occurs in any Australasian colony the neighbouring colonies may, pending the extent and risk of the outbreak being definitely ascertained, at once issue a prohibition against the introduction of stock from such colony; and that the duration of the prohibition depend upon the amount of risk arising from such outbreak.

24. That sheep imported into any colony, and certified by an Inspector of that colony as free from infection, may be introduced into any other colony if found to be free from infection by the Inspector of the latter colony into which the sheep are being imported.

25. That Australasian horses and dogs, accompanied by a declaration by the owner and a certificate from the Inspector or veterinary surgeon at the port of shipment, be allowed to land on the permit of a Customs officer; but, in the event of any colony or colonies not carrying out the regulation requiring foreign dogs to be quarantined in Government quarantine grounds only, all dogs arriving either by sea or land from any such colony or colonies shall be deemed foreign stock.

26. That no Australasian stock be transhipped in any Australasian port without the permission of the Inspector.

MISCELLANEOUS.

27. That this Conference considers that M. Pasteur's vaccine of anthrax is effective, and recommends that assistance be given him in establishing agencies in all the colonies, with a view to those owners who require the vaccine obtaining and using it.

28. That the travelling, selling, or offering for sale, or slaughtering for food, of any animals affected by the diseases known as tuberculosis and actinomycosis, or the using of cows affected by tuberculosis and actinomycosis for dairy purposes, be punishable by law; and that there be a more thorough inspection of dairy cattle in use in populous districts.

29. That the Conference expresses its belief in the efficacy of inoculation as preventive of pleuro-pneumonia.

30. That the Conference affirms the principle of compulsory inoculation for pleuro-pneumonia where the disease appears.

31. That on the Continent of Australia there be no restrictions against the free interchange of inoculated cattle, bearing the inoculation ear-mark, but that a declaration by the owner that the cattle have been duly inoculated accompany them.

32. That all sheep infected with catarrh be destroyed; that the owners be recompensed to the extent of two-thirds the value of sound sheep at the date of destruction; and that the run or place on which the sheep were pasturing be strictly quarantined for six months.

33. That, as the conditions are so various in the different colonies, each colony should legislate for itself, where practicable, on the subjects of fluke, worms, and foot-rot in sheep.

34. That the Government of Western Australia be urged by the Governments of the colonies represented at the Conference to take more energetic steps than those at present adopted for the speedy eradication of scab.

35. That steps be taken by the several Australasian Colonies to thoroughly eradicate ticks and lice in sheep.

36. That any animals found to be infected with glanders, farcy, foot-and-mouth disease, rinderpest, sheep-pox, swine-fever, rabies, trichinosis, or any other infectious or contagious disease not existing within the colonies be at once destroyed.

37. That it is desirable that an efficient and competent staff of inspectors of stock be maintained in each colony, to prevent the introduction and to arrest the spread of contagious or infectious diseases in each colony, and to give the other colonies confidence that the stock asked to be introduced are free from infection; and that where stock come from a colony in which such a staff is not maintained, the colony into which they are proposed to be introduced be entitled to put on such restrictions as it may deem necessary to impose by way of guarantee that such stock are not infected.

38. That it is desirable the Governments of Queensland, South Australia, and Western Australia should exercise the greatest possible vigilance with respect to their northern ports to prevent the introduction of diseases from Eastern, Indian, or Chinese ports.

39. That regulations in regard to the travelling, movement, or conveyance of animals be left to be dealt with by each colony within its own boundaries.

40. That all drafts of laws or regulations dealing with the diseases of animals be, as far as practicable, submitted by the Government framing them to the Governments of the other colonies for remark before they become law; and that proofs of any papers or reports relating to pastoral matters, which would be likely to be of benefit or interest to stockowners generally, be also

forwarded, in order that the other Governments may, should they see fit, order a supply of copies for distribution.

41. That this Conference affirms the desirability of establishing an Australasian laboratory or institution for the purpose of investigating and experimenting upon any diseases to which stock are or may become liable, particularly, in the first instances, pleuro-pneumonia, anthrax, and tuberculosis.

42. That the inspectors of the various slaughterhouses and dairies shall, as far as possible, be qualified veterinary surgeons.

43. That it is most desirable that a stud-book for horses, cattle, and sheep be kept in each colony as a register; and as the best means to accomplish this end the different representatives present be requested to communicate with their principal agricultural societies and associations of stock-breeders, and endeavour to prevail upon them to keep such register.

44. That the means hitherto in use in the different colonies that are infested with rabbits have not had the effect of materially reducing the number of those animals, and that, in consequence, the period of being relieved from the pest is still uncertain, thereby entailing continued loss to the pastoral and agricultural industries of the Australasian Colonies; and that joint action should be taken by the Governments of the different colonies to offer a bonus for a scheme that will lead to the more rapid extermination of the pest.

45. That the resolutions 1 to 8 hereunder, passed by the Royal Commission of New South Wales, and as altered by these resolutions, be the measures recommended by this Conference for dealing with the rabbit-pest.

- (1.) That the responsibility for the destruction of rabbits, whether on freehold or on leasehold land, must rest on the landholder. That with respect to unoccupied Crown lands the State must accept similar responsibility.
- (2.) That the rabbit-pest has made the continuance of the system of annual leases of Crown lands impossible.
- (3.) That no finality in rabbit-destruction will be obtained without making the erection of rabbit-proof fences compulsory.
- (4.) That the department administering the Rabbit Destruction Acts should be empowered to permit the fencing of holdings in groups. That in dealing with land of very poor carrying-capacity the State should show special consideration to the lessees in respect of tenure.
- (5.) That in all infested country simultaneous operations for the destruction of rabbits should be made compulsory.
- (6.) That netting 42in. wide (3ft. above and 6in. in the ground), with a mesh of 1½in., forms a practically efficient barrier against the incursions of rabbits.
- (7.) That the system of trapping with professional trappers, and of State bonuses, is radically bad.
- (8.) That legislative measures should be taken compelling landowners or lessees in districts infested by rabbits to join, subject to the above provisions, in payment of the cost of rabbit-proof-netting fences or of the addition of such netting to existing fences.

46. That the Conference, taking into consideration the importance of the subjects that have come before them for discussion and decision, are of opinion that an Australasian Stock Conference should continue to be held triennially at the chief city of one of the colonies, and they respectfully offer this recommendation to the several Governments.

47. That the Conference desire to call the attention of the Agricultural and Pastoral Associations of the several colonies to the desirability of intercolonial conferences being held periodically in one of the chief cities of each colony, to discuss matters of general interest to agriculturists and stockowners as a class, each colony to send, say, three delegates, as may be agreed upon.

48. That, in view of the fact that no scab has been found to exist in sheep in New Zealand since the 30th June, 1890, and that during this period a regular and proper system of inspection has been carried on, this Conference recommends the different Australasian Governments to remove the restrictions at present in force against the importation of New Zealand sheep if after next shearing the flocks in the last-infected districts are on inspection found free from scab. The Conference also recommends that in such case the restrictions on intercolonial steamers be removed.

49. That, as no disease exists in cattle in New Zealand, the Tasmanian Government be requested to allow New Zealand cattle to enter their colony without imposing any period of quarantine.

50. That in the opinion of this Conference the proclamation of private premises as quarantine-grounds for imported stock constitutes a grave public danger, by virtually abolishing all safeguards against the introduction of disease.

51. That this Conference respectfully recommends the various Australasian Governments to make inquiries through their Agents-General as to the most suitable months in the year in which to ship cattle from the United Kingdom to the colonies, so as to prevent the introduction of so serious a pest as the gad-fly (*Cestrus bovis*); and that warbles (*Cestrus bovis*, or gad-fly) should be included among the diseases to be dealt with by the several Australasian Governments.

52. That, in the opinion of this Conference, it is desirable that the various Governments of Australasia should take such steps as will foster and further develop the dairy industries which are or may be established in the several colonies under their charge.

53. That it is desirable a uniform code of regulations, embodying the resolutions passed by this Conference, be adopted by all the colonies. That such code do come into force on or after the 1st January, 1893.

54. That a copy of the proceedings of this Conference be forwarded to the Governments of Victoria, South Australia, and Western Australia, and that they be respectfully asked to adopt and act upon the resolutions agreed to.

JOHN HALL,
Chairman of Conference.

31st October, 1892.

2—H. 2.

MINUTES OF PROCEEDINGS.

TUESDAY, 25TH OCTOBER, 1892 (FIRST DAY).

The following were the representatives of the several colonies:—

New South Wales ...	...	Mr. Alexander Bruce, Chief Inspector of Stock.
Queensland ...	...	Mr. P. R. Gordon, Chief Inspector of Stock.
Tasmania...	...	Mr. T. A. Tabart, Chief Inspector of Stock.
" ...	...	Mr. Archibald Park, M.R.C.V.S., Veterinary Surgeon.
New Zealand ...	...	Hon. Sir John Hall, K.C.M.G., Stock-breeder.
" ...	...	Mr. John Roberts, C.M.G., Stock-breeder.
" ...	...	Mr. Thomas Brydone, Stock-breeder.
" ...	...	Mr. William Boag, Stock-breeder.
" ...	...	Mr. W. E. Bidwill, Stock-breeder.
" ...	...	Mr. Coleman Philips, Stock-breeder.
" ...	...	Mr. W. F. Lawry, M.H.R., Stock-breeder.
" ...	...	Mr. J. McNicol, Stock-breeder.
" ...	...	Mr. John D. Ritchie, Chief Inspector of Stock.
" ...	...	Mr. John F. McClean, M.R.C.V.S., Veterinary Surgeon.

Victoria, South Australia, and Western Australia, were unrepresented.

The following is a copy of the circular-letter, dated the 11th July, 1892, addressed to the different Australasian Governments:—

SIR,—

The Premier's Office, Wellington, 11th July, 1892.

As the time is approaching for the triennial meeting of Chief Inspectors of Stock, Government Veterinary Surgeons, and stock-owners of the Australasian Colonies, I have much pleasure on behalf of my Government to convey a cordial invitation that the Conference be held in New Zealand.

I shall be obliged by your advising me at the earliest opportunity if it will be convenient for your representatives to attend, so that the necessary arrangements can be completed.

I would suggest that the Conference be held in Wellington on the 25th October next.

I have, &c.,

JOHN MCKENZIE,

For the Premier.

All the delegates were present with the exception of the Hon. Sir John Hall, K.C.M.G., Mr. W. E. Bidwill, and Mr. McNicol, who, it was announced, would arrive later.

The delegates were introduced by Mr. Ritchie, Chief Inspector of Stock, who read the following letter from the Hon. J. McKenzie, Minister of Agriculture, apologizing for his being unable to attend through illness:—

GENTLEMEN,—

Minister of Lands' Office, Wellington, 25th October, 1892.

I have to express great regret that the state of my health prevents my being present at the opening of the Conference this morning to welcome the representatives of the Australian Colonies and the stock-owners of New Zealand. At the same time, I have to express my gratification at the decision of the Governments of Queensland, New South Wales, and Tasmania to accept the invitation of the New Zealand Government to hold the Conference here.

I trust the outcome of this Conference will be of mutual benefit to all the colonies interested, as I have every confidence that the business brought before the Conference will receive such attention as the importance of the several subjects merits.

I need hardly add that it will give me the greatest pleasure to render you every assistance in my power, although I shall unfortunately be absent from your sittings; and again thanking you for your presence,

I have, &c.,

JOHN MCKENZIE,

Minister of Agriculture.

The Members of the Australian Stock Conference.

Mr. RITCHIE said, as they were aware, invitations had been sent out by New Zealand to the various Australian Colonies, asking them to send delegates to attend the triennial Stock Conference in Wellington. Favourable replies have been received from Queensland, Tasmania, and New South Wales, but the other colonies, unfortunately, could not send representatives. Queensland was represented by Mr. Gordon, New South Wales by Mr. Bruce, and Tasmania by Mr. Tabart and Mr. Park. In order that the Conference might get the benefit of all the information possible, he had recommended the Minister to invite a number of the leading stock-breeders in different parts of the colony to attend, some of whom were present, and he hoped the others would be in attendance before the business of the Conference had proceeded far. He would not detain the Conference any further, but would suggest that a chairman be elected and the Conference proceed to arrange the course of business.

Mr. TABART moved, "That Sir John Hall, K.C.M.G., be Chairman of the Conference, and before his arrival Mr. Roberts, C.M.G., take the chair."

Mr. LAWRY seconded the motion.—Agreed to.

Mr. ROBERTS, in taking the chair, expressed his gratification at the honour conferred upon him. Sir John Hall was in every respect a man entitled to occupy such a position, as he was the senior of all of them in colonial experience, political experience, and in years. He was a man in every way suitable, and when he came there next day they would find him a gentleman well able to conduct the business of the Conference with care and deliberation; and he was quite sure that the knowledge Sir John would bring to bear on their deliberations would be of special benefit to the gentlemen from the other colonies as well as to those representing New Zealand. Had he (Mr.

Roberts) known that he would be called upon to temporarily fill the position in which he was placed, he would have been prepared to make some introductory remarks touching upon the subjects which might engage the attention of the Conference. Without notice he was unable to do that. Before going to the business of the Conference he might give expression to the great pleasure it afforded those in New Zealand to see representatives from the other colonies here. They had not secured delegates from all the colonies, but, still, the mother-colony (New South Wales) was represented, also Queensland and Tasmania—most important colonies, although not such producers of wool as New South Wales. He welcomed them all on behalf of New Zealand, and hoped that, both here and in their wanderings over the colony, their visit would be productive of information which on their return would be of value both to themselves and to their fellow-colonists. He thought he might say that, as far as the New Zealand representatives were concerned, they would be at the disposal of the Australasian delegates during their stay, and if they could further their interests by showing them over the colony, or the stock of the country, or in any other way, they would take pleasure in doing so. He hoped the delegates would not hesitate to make known their requests, which he was quite sure would be gladly conceded. He did not know in what form the business was to come up, and perhaps it might not be altogether his place as a delegate from the South to sketch out the procedure of the business to be taken. He would probably be consulting the wishes of the Conference by leaving that in Mr. Ritchie's hands. As far as he (Mr. Roberts) understood, one of the subjects to be considered would be how far New Zealand could be declared clean in connection with scab, with a view to application being made to the other colonies that New Zealand be received as a clean colony. Then, there were other questions of interest, such as diseases in sheep and cattle, the destruction of rabbits, and other matters of vital importance to pastoralists, not only in New Zealand, but all over the world. Discussions on such subjects, and the consequent interchange of ideas, must of necessity be of value to them, and he hoped the result of their deliberations would be of substantial benefit to all the Australasian Colonies.

Mr. RITCHIE said that, owing to the short notice they had had that the Conference was to be held here—only a fortnight or so—they had not prepared any programme. Arrangements had been made to have one or two papers read and discussed, which might now be put upon the list, together with any others which the delegates might wish. He thought the Conference could proceed to make up a programme. It would be necessary to arrange about the voting. Queensland and New South Wales were represented by one delegate each, Tasmania by two, and New Zealand by a much larger number. It would be manifestly unfair to the other colonies to allow each representative of New Zealand to exercise a vote of equal value to the votes of the other delegates. He suggested that the question of voting should be decided first, and that the Conference then discuss the order of business.

Mr. BRUCE thought that what they were there principally for was to consider the regulations regarding the introduction of foreign stock into the various colonies, and the interchange of stock by the several colonies. They had to look upon those matters as of the greatest importance. With regard to the papers to be dealt with, he would suggest that they be put in and printed, and afterwards considered.

VOTING-POWER.

Mr. TABART thought the most important matter at that stage was to settle the voting-power. New Zealand would be represented by several gentlemen, Tasmania by two, and New South Wales and Queensland by one each. Each colony must have the same voting-power. He suggested that each colony represented have three votes: that New Zealand should name its delegates to vote for the colony; and in the case of his own colony (Tasmania), that he should exercise one vote as Chief Inspector of Stock and another for stockowners, while Mr. Park would exercise the third as Veterinary Surgeon. In the case of New South Wales and Queensland, he would suggest that Mr. Bruce and Mr. Gordon have each three votes. That seemed to him to be the only way out of the difficulty.

Proposed: "That each colony represented have three votes."—Agreed to.

Proposed: "That the New Zealand delegates first record their votes for or against all proposals before the Conference, the decision come to to represent three votes; New South Wales, represented by Chief Inspector of Stock, three votes; Queensland, represented by Chief Inspector of Stock, three votes; Tasmania, represented by Chief Inspector of Stock, two votes; Tasmania, represented by Veterinary Surgeon, one vote."—Agreed to.

NOTICES OF MOTION.

Proposed: "That a notice of motion must be in the hands of the Chairman not later than the day preceding the proposed discussion thereof, unless the matter is considered urgent by the Conference."—Agreed to.

TIME ALLOWED FOR DISCUSSION.

Proposed: "That no member of the Conference be allowed to speak on any subject under discussion for more than ten minutes, but that such time may be extended five minutes or a still further period by the indulgence of the Conference. The mover of any motion shall have the right to reply."—Agreed to.

PROGRAMME.

Proposed: "That the following be the subjects for discussion:—

"1. Regulations regarding the introduction of foreign animals. Foreign diseases—*i.e.*, diseases not known in Australasia.

"2. Regulations regarding the introduction of Australasian animals—

"(a) By sea,

"(b) By land

“ 3. Regulations regarding disease—

- “ (a) Scab,
- “ (b) Catarrh,
- “ (c) Fluke,
- “ (d) Worms,
- “ (e) Foot-rot,
- “ (f) Anthrax,
- “ (g) Pleuro-pneumonia,
- “ (h) Tuberculosis,
- “ (i) Stringhalt,
- “ (k) Coccidium and actinomycosis,
- “ (l) Prurigo (horse-mange).

“ 4. Rabbit-pest.

“ 5. Frozen and chilled meat trade.

“ 6. Stud-book for Australasia.

“ 7. And any other subject which may be suggested and agreed to by members of the Conference.”—Agreed to.

DEFINITION OF TERMS.

Proposed: “That the term ‘Australasian Colonies’ comprises the colonies on the Continent of Australia, also Tasmania and New Zealand; and that the term ‘foreign’ includes all other parts of the world.”—Agreed to.

The following correspondence was read:—

“ GENTLEMEN,—

“ Hobart, 13th October, 1892.

“ We have the honour to bring under your notice the fact that clause 4 of the present Scab Act presses very hardly upon our new steamer ‘Tasmania,’ which was built specially for and is now running in the trade between this port and Sydney.

“ The ‘Tasmania’ arrived at Melbourne on the 25th July last, and, as the enclosed copy of the master’s statutory declaration (original of which is held by Mr. Thomas A. Tabart, of this colony) states, had, unfortunately for us, a few sheep on board at one time for consumption by crew and passengers. Extraordinary precautions were, however, taken to keep her ‘clean,’ and since her arrival—nearly three months ago—she has been daily flushed with salt water; consequently we respectfully urge that there is no possible danger of any disease being imported by her, and we pray you to at once lift the embargo from our vessel, and allow her to commence carrying sheep between the ports named. We would further ask, as time is of great importance to us, that you be so good as to acquaint us with your reply to our request by a ‘collect’ cablegram.

“ We have, &c.,

“ HUDDART, PARKER, AND Co. (Limited).

“ (John Murrell, Hobart, Manager.)

“ President and Members of the Intercolonial Conference of Stock Inspectors,

“ Wellington, New Zealand.”

“ Union Steamship Company of New Zealand (Limited),

“ MY DEAR SIR,—

“ Dunedin, 22nd October, 1892.

“ I take the liberty of addressing you on a matter in which our company is interested, and which is, I understand, likely to come before the Stock Conference in Wellington.

“ It is understood that a resolution will probably be passed limiting the period of quarantine imposed upon steamers from England to three months, instead of six as at present; and in anticipation of this Messrs. Huddart, Parker, and Co. have applied to the Conference to admit their steamer ‘Tasmania,’ now trading between Sydney and Tasmania, to immediate pratique, on the ground that she has already done three months’ quarantine—i.e., practically to make such resolution as is likely to be passed retrospective in its effect.

“ We naturally object to this, as we have had to bear the brunt of the six months’ quarantine on several of our steamers. The ‘Oonah’ and ‘Talune,’ when they originally came to Tasmania, had to undergo six months’ quarantine before being allowed to carry sheep; so also with the ‘Rotomahana’ when trading between Launceston and Melbourne. Again, when we took the ‘Talune’ over from the Tasmanian Company eighteen months ago, we overlooked for the moment this question of stock-carrying, and ran her a trip to New Zealand to fill up some spare time, and have consequently since been unable to run her in her proper trade between Hobart and Sydney, because of the quarantine restrictions.

“ We think, therefore, it would be unfair to us to allow any such resolution to have a retrospective effect. Of course, we shall be glad to see the period of quarantine limited to three months, and all get a like advantage as from this date. Indeed, we hope that before long circumstances will permit of the entire removal of the restriction, so as to enable our steamers from New Zealand to embrace the trip between Hobart and Sydney in their run should occasion require it.

“ I hope you will pardon my addressing you direct in this matter, but I feel sure you will be glad to know both sides of the case when the matter comes before the Conference for decision.

“ I have mentioned the matter to Mr. John Roberts, and have given him copy of this letter.

“ I have, &c.,

“ J. D. Ritchie, Esq., Wellington.”

“ JAMES MILLS.

Mr. TABART said he knew the circumstances of the matter referred to in the letter from Messrs. Huddart, Parker, and Co. They made a communication to him on the 29th July, asking him to allow sheep to be carried in the vessel between New South Wales and Tasmania. The regulations of his colony absolutely prohibited them from doing so. It was a matter of considerable importance to the stud interests of Tasmania, which were likely to be very much affected if the Government

had allowed sheep to be carried by these vessels. The vessel referred to was unclean under their regulations, and had they permitted the shipping of sheep by that vessel possibly New South Wales or Victoria would have prevented Tasmanian stud sheep being landed. Therefore he suggested to his Government that they should not submit to the proposal of Messrs. Huddart, Parker, and Co.; and the Premier adopted his suggestion, and would not allow the vessel to carry sheep. He knew that it was the intention of Messrs. Huddart, Parker, and Co. to bring pressure to bear on the present Conference in order to undo what the Tasmanian regulations said they must do; and, whatever was done by the Conference in respect to the quarantining of vessels, he did not think it should have a retrospective effect.

Mr. BRUCE suggested that the question should be postponed until the Conference came to deal with the regulations now in force. They would be in a better position then to consider the application. They could discuss the question as to whether the period should be reduced from six months to three months, and deal with the letter afterwards.

The CHAIRMAN could not see any harm in discussing the matter.

Mr. GORDON said that if they reduced the term to three months it would be another three months before the regulations could be carried into effect.

Consideration of the correspondence postponed. (See page 14.)

SALE OF SHEEPSKINS FROM A FOREIGN-GOING VESSEL.

Mr. BRUCE referred to an application he had received from Mr. Barker, wool-broker, of Sydney, asking that sheepskins off Australian sheep taken to Noumea be allowed to be brought back and sold in Sydney. He (Mr. Bruce) desired to take the opinion of the Conference on the matter.

It was decided to consider the subject when the regulations were under review.

THE PERIODS OF QUARANTINE UPON STOCK.

Mr. TABART then read the following paper:—

In my opinion, this is a subject deserving the most serious attention of this Conference. Taking into consideration the large numbers of stock depastured in Australasia, amounting in 1891 to the figures given below, viz.:—

Horses.	...	Cattle.	...	Sheep.	...	Pigs.
1,771,566		11,489,596		124,449,942		1,152,851

it is evident that the introduction of foreign stock must be conducted upon a sure and safe basis, at the same time bearing in mind the fact that the interests of importers must be also studied.

It is obvious, when we consider what are the contagious diseases most likely to be introduced, that the periods of incubation are so short that their detection upon arrival at Australasian ports would be reduced to an absolute certainty. Instance the case of glanders introduced into New South Wales by two show horses belonging to Sells Brothers' circus.

The object of Stock Departments, I take it, should be, first, to secure safety from the introduction of disease by establishing a judicious term of quarantine for each particular class of stock; and secondly, to reduce as much as possible the charges upon the importer, who, while individually benefiting himself, indirectly confers a boon upon the colony as a whole by introducing new blood into the flocks and herds. In this he should undoubtedly be encouraged. This subject has a most important bearing upon the Colonies of New Zealand and Tasmania. I feel assured that, even with the Tasmanian six months' and the New Zealand ninety days' quarantine, no sufficient safeguard exists against the introduction of pleuro-pneumonia into the above colonies from the mainland. This disease since its introduction into Australia has caused serious losses, and in many cases ruin, to owners of cattle-stations; and, even at the present time, notwithstanding the established practice of inoculation, disastrous outbreaks occur. To protect Tasmania against this disease, it is my intention to recommend to the Government that no description of cattle (other than for slaughtering purposes) be admitted from Australia over the age of two years, and that this condition shall also apply to foreign cattle. This may appear arbitrary, but it would minimise the risk of introducing pleuro into the colony from a beast that had been infected but has recovered, and is suffering from an encysted lung, which, under certain conditions, might cause an outbreak at a period remote from the apparent convalescence of the animal. I would also recommend this course of action to the New Zealand authorities.

By adopting such a suggestion, importers would possibly have more confidence, when desiring to improve their herds, knowing that the risk of introducing disease is practically much reduced.

Further, the great necessity for maintaining stringent inspection and quarantine regulations upon stock arriving from England is daily becoming more manifest. Not only is it necessary to prevent the introduction of infectious and contagious diseases, but also that of other pests, which may otherwise occur owing to the uncertain periods of incubation being either hastened or retarded by unusual conditions. An instance of this has come under my immediate observation.

On the 11th December last three Devon cows were admitted to Nubeena Quarantine-station, and on the 23rd January following they developed warbles, the result of having been struck by the gad-fly (*Cestrus bovis*) prior to being placed on shipboard in England.

Had they remained in England, I am credibly informed that no sign of the existence of the pest would have appeared until the spring months in that country—viz., March, April, and May; but, consequent upon the cattle undergoing an English summer and autumn and then being transported into our summer and autumn, without the severity of a winter intervening, the development of the larvæ occurred at least two months earlier than would have resulted under natural conditions.

This being the case, I deem it necessary to recommend that all the regulations now in force

bearing upon the importation of stock from England be revised, with a view of giving the Stock Departments and the Government Veterinary Surgeons the supervision of all importations for a period of six months after their release from quarantine, with power to take possession of the animals when this or any similar ailment makes its appearance, the costs and charges of supervision to be paid by the owner.

In asking this power it may be necessary to point out that it would be impossible to fix a period of quarantine to specially deal with such pests, differing entirely as they do from an infectious or contagious disease having a recognised period of incubation, and which is completely covered by our present term of quarantine. When the Devon cows alluded to had completed their term, I determined to retain possession of them, as warbles continued to appear. I feel assured that, had I released them, the owner would have kept them under strict surveillance, but I hesitated to establish a precedent by allowing stock to leave quarantine while suffering from what would, if introduced, probably be a serious trouble and heavy loss to stockowners. The estimated loss from the attacks of the gad-fly in England is from £2,000,000 to £7,000,000 annually. With a fact such as this before the Conference, I would strongly urge members to consider the desirability of restricting the exportation of cattle from England to the months of April and May.

I propose to deal seriatim with the quarantine periods under section 50 of the report of minutes of proceedings, resolutions, &c., of the meeting of Chief Inspectors of Stock held in Sydney in June, 1891; also to show the recognised periods on incubation of diseases likely to attack each individual class of stock under Form C, Regulation 4:—

Horses.

Period of Quarantine.	Disease.	Period of Incubation.
Fourteen days ...	Anthrax	Twenty-four to forty-eight hours.
	Farcy, glands	Eight to fourteen days.
	Influenza	Very rapid—twenty-four hours.
	Rabies	Uncertain.
	Mange	Uncertain.

I believe the term of quarantine fixed will insure safety when it is shown that in cases of glanders and farcy fourteen days would be covered by the sea-voyage. Thus there would be no danger unless an outbreak occurred in course of transit, and this must be reported by the captain under section 44.

Cattle.

Term of Quarantine.	Disease.	Period of Incubation.
Sixty days ...	Actinomycosis	Slow growth; not contagious.
	Anthrax	Twenty-four to forty-eight hours.
	Cancer	Not contagious.
	Foot-and-mouth	Extremely rapid.
	Pleuro-pneumonia	Fourteen to forty-two days.
	Rabies	Uncertain.
	Rinderpest	Under eight days.
	Tuberculosis	By inoculation—rapid; slow development.

The period of quarantine from foreign countries I consider unnecessarily long, and would propose the sixty days be reduced to thirty days, if the Conference will adopt the views promulgated by me in this paper—that cattle shall not be introduced from outside the Australasian Colonies over the age of two years, and only when exported from England during the months of April and May.

Sheep.

Term of Quarantine.	Disease.	Period of Incubation.
Ninety days ...	Anthrax	Twenty-four to forty-eight hours.
	Catarrh	Rapid.
	Foot-and-mouth	Extremely rapid.
	Rabies	Uncertain.
	Rinderpest	Under eight days.
	Scab	Sixteen to eighteen days.
	Sheep-pox, ticks, and lice	Three to eight days.

The quarantine of ninety days is absurdly long, when it is considered that the period of incubation of the diseases enumerated in no case exceeds eighteen days, and that, as a provision against the introduction of scab, ticks, or lice, sheep are dipped immediately upon entering the quarantine-ground, a second, or even third, dipping being at the discretion of the Chief Inspector. With such precautionary measures I feel sure the Conference will see fit to reduce the term to thirty days.

Goats, Deer, and Antelopes.

Term of Quarantine.	Disease.	Period of Incubation.
Sixty days	Anthrax	Twenty-four to forty-eight hours.
	Foot-and-mouth	Extremely rapid.
	Rabies	Uncertain.
	Rinderpest	Under eight days.

My remarks upon cattle will apply to the above animals.

Dogs.

Term of Quarantine.	Disease.	Period of Incubation.
Six months	Rabies	Uncertain.
	Distemper	About seven days.

I cannot recommend a reduction in the term of quarantine for dogs, although it is, I believe, a fact that no case of rabies has ever been recorded in the Southern Hemisphere.

The prevention of the introduction of such a terrible disease as rabies should not be left to chance, but should be made safe beyond all doubt, and, as the period of incubation is so uncertain, I would support a more lengthy quarantine than six months.

In conclusion, I trust that the members of the Conference will consider this paper worthy of discussion. I shall be prepared, with the assistance of Mr. Park, to deal with the subject-matter thereof, and respectfully submit that there is ample scope for the alterations in the direction suggested. I trust that a thorough discussion of the subject will follow, and the Conference may be enabled to frame safe and uniform quarantine-laws for the Australasian Colonies.

Mr. RITCHIE moved, "That the thanks of the Conference be awarded to Mr. Tabart for his paper, and that instructions be given for it to be printed."

Mr. LAWRY seconded the motion.

The CHAIRMAN said it was a most interesting paper. He happened to come out in the same vessel as the Devon cows referred to, and they then seemed to be very healthy. It was strange how the gad-fly had developed.

Motion agreed to.

SCAB.

By permission, Mr. TABART moved without notice, "That the Conference be informed by the Chief Inspector of Stock—(1) The dates of Proclamations issued declaring New Zealand free from scab; (2) the dates of subsequent outbreaks of scab in the North and South Islands; (3) the cause of the outbreaks, the names of districts found unclean, the dates of licenses issued and renewals; (4) the means adopted to eradicate the disease."

Mr. BRUCE seconded the motion.—Agreed to.

Mr. RITCHIE said they had only got the *Gazette* notices, and he would produce them next day. (See page 15.)

INTRODUCTION OF STOCK INTO THE AUSTRALASIAN COLONIES.

At the suggestion of Mr. BRUCE it was decided to go through the resolutions passed by the Conference held in 1889.

Animals and Things Prohibited.

Proposed: "9. That the following animals and things be prohibited:—

"(1.) Cattle and sheep from all foreign countries and colonies other than Great Britain and Ireland, unless they have been fourteen days in Great Britain or Ireland."

Amendment proposed: "That the words 'and sheep' be struck out, and the words 'sheep and pigs' be substituted in lieu thereof."—Agreed to.

Clause as amended agreed to.

"(2.) Swine from all foreign colonies and countries."

Mr. BRUCE moved, "That this clause be struck out."

Mr. GORDON seconded.—Agreed to.

Clause struck out.

"(3.) Goats, deer, antelopes, llamas, buffalo, and any other ruminants from all foreign colonies and countries, unless for a zoological society."—Agreed to.

"(4.) All fodder and litter with which foreign animals have been in contact from any foreign colony or country, or from any foreign vessel."—Agreed to.

Introduction of Foreign Animals.

Proposed: "10. That the following foreign animals be admitted, subject to regulations framed on the resolutions of the Conference:—

"(1.) Horses from any colony or country."

Mr. BRUCE raised the question of prohibiting horses from foreign countries. Glanders had been introduced into New South Wales by show horses belonging to Sells's Circus, and, from what he had seen in the agricultural papers, glanders was very prevalent in Great Britain.

Mr. McCLEAN said New Zealand was importing trotting-stallions from America, and he did not think they should prohibit their introduction.

Mr. BRUCE and Mr. TABART would like to prohibit the importation of horses from America.

Mr. RITCHIE could not agree to this, as the same reasoning would apply to horses from England. He thought the period of quarantine might be increased, say, to twenty-eight days. That might get over the difficulty. He would not like to stop the trade with America in trotting-horses, as there was great need for them in New Zealand, and no doubt in the other colonies also.

Clause agreed to.

"(2.) Camels from any colony or country."—Agreed to.

"(3.) Cattle and sheep from Great Britain and Ireland."

Mr. RITCHIE would like some discussion on the question of allowing sheep to come direct by the San Francisco boats. As Mr. Tabart had said, the only disease likely to be introduced from America was scab; and he (Mr. Ritchie) thought that dipping might get over that difficulty.

Mr. BRUCE said his reason for favouring the present system was, that scabby sheep had been introduced, and the scab had been traced to California. There was no scab in Vermont or in any of the Eastern States; but Californian sheep were notoriously scabby. Australia had what they might call a double inspection of sheep coming from London. Sheep would not be sent unless previously examined by the Imperial staff, and then the colonies had their own Inspectors. Although it increased the expense to the importer, he was inclined to adhere to the present system.

The CHAIRMAN asked if an additional thirty days' quarantine would not meet the difficulty.

Mr. GORDON thought they would be perfectly safe in adopting the suggestion. Australia had a double security; New Zealand was isolated.

Mr. BRUCE said they might reduce the period of quarantine from ninety days to sixty days in the case of Great Britain.

The clause was amended to include pigs, and agreed to.

"(4.) Goats, deer, llamas, antelopes, buffalo, and any other ruminants from any colony or country, if intended for a zoological society."—Agreed to.

"(5.) Dogs from any colony or country."—Agreed to.

"Proposed: 11. That the following be included among the regulations under which foreign animals and things not prohibited may be admitted into any Australasian Colony:—

"(1.) That twenty-four hours' notice be given by the owner of the animals of his intention to land them."—Agreed to.

"(2.) That the animals be accompanied by a declaration by the owner and certificate by the Inspector or by a qualified veterinary surgeon in the district from which they start."—Agreed to.

"(3.) That no animals, nor any fodder, fittings, or effects with which foreign stock have been in contact, be landed without the written permission of the Inspector."—Agreed to.

"(4.) That notice be given to the owner when any stock are ailing or are about to be destroyed."—Agreed to.

"(5.) That notices be given personally, or left at the person's residence or place of business, or sent by registered letter."

Amendment proposed: "That notices be given personally, or left at the residence or place of business of the person for whom the notice is intended, or sent by registered letter to the address of such person."—Agreed to.

"(6.) That four weeks' notice be given to the Chief Inspector of Stock of an owner's intention to introduce foreign stock."

Amendment proposed: "That the words 'four weeks' be omitted, and the words 'at least fourteen days' be inserted in lieu thereof."—Agreed to.

Clause as amended agreed to.

"(7.) That all cattle and sheep exported to Australasia be shipped from the ports of London or Glasgow."

The clause was amended to include pigs, and agreed to.

"(8.) That the Agents-General for the several colonies be asked to appoint one (*i.e.*, the same) registered veterinary surgeon at each port of shipment, to examine all stock intended to be exported to any of the colonies; such veterinary surgeon to give a certificate of health to accompany the animals."

Amendment proposed: "That the word 'registered' be omitted, and the word 'qualified' be inserted in lieu thereof."—Agreed to.

Clause as amended agreed to.

"(9.) That animals intended to be introduced into any of the colonies and all other animals on board the same vessel be examined by the veterinary surgeon appointed by the colonies, and with respect to which he shall certify that they are all free from infection, and that in their case these regulations have been complied with."—Agreed to.

"(10.) That the skins of all animals which may have died or been slaughtered on board any foreign vessel during the voyage, and not destroyed or thrown overboard, be salted and securely packed in cases or casks, and not landed."

Amendment proposed: "That, after the word 'landed,' the words 'except for transshipment under the supervision of an Inspector' be added."—Agreed to.

Clause as amended agreed to.

"(11.) That a declaration be obtained from the captain of the vessel as to the health of foreign stock on board, on arrival in port."

Amendment proposed: "That the word 'joint' be inserted before 'declaration,' and the words 'and attendant of the stock' after the word 'vessel.'"—Agreed to.

Clause as amended agreed to.

"(12.) That all foreign animals, while in any port in the colonies, be securely confined and

fastened up to the satisfaction of the Inspector, and shall not without his sanction be touched or handled except by their attendants."

Mr. RITCHIE said that ships' dogs were a great source of trouble, and he would like to see them prohibited. No foreign animal which it was not intended to land ought to be allowed to enter a port. They had a number of ports in the colony where dogs might be landed, and it was impossible to keep an Inspector always there. All ships' stock should be quarantined during the stay of the vessel.

Mr. McCLEAN said that by allowing stock to remain on board they were really sanctioning private quarantine such as that permitted by Victoria.

Mr. GORDON sympathized with Mr. Ritchie. "It was a different matter for those colonies which had only one port. His colony had two thousand miles of coast.

Mr. McCLEAN moved, as an amendment, "That all stock intended for ship's use, and dogs arriving by any foreign vessel, shall within forty-eight hours of their arrival in port be either removed to quarantine or killed under the supervision of an Inspector. The carcasses of any cattle, sheep, or pigs so killed may, by instructions of an Inspector, and under his supervision, be sold and delivered ashore."

Mr. TABART seconded the amendment. The system of private quarantine was a farce. He knew of one case in Victoria where a member of the Legislature had brought out a dog. He at first tied the dog up, but shortly afterwards allowed it to run loose.

Mr. GORDON moved, as a further amendment, "That the following words be added to the motion, 'That dogs arriving by sea or land from any Australasian Colony where private quarantine is permitted be subject to inspection, and charged an inspection fee of 2s. 6d. in the colony into which they are intended to be introduced.'"

Mr. BRUCE seconded. They wished to stop the practice of private quarantine, and he fancied that if they were to impose a fee the public would very soon make Victoria alter her regulations. It might be a little vexatious to go the length proposed in Mr. McClean's amendment.

Mr. Gordon's amendment negatived.

Mr. McClean's amendment put and agreed to. Original clause struck out.

"(13.) That foreign animals intended to be landed in the colonies be examined by a veterinary surgeon and an Inspector of Stock, who shall report to the Chief Inspector of Stock whether or not such or any other animals on board such vessels are infected."—Agreed to.

"(14.) That if foreign animals (except camels) are infected they be destroyed, or disposed of as the Minister directs."—Agreed to.

"(15.) That camels found on arrival to be infected with scab shall be dressed as the Chief Inspector directs."—Agreed to.

"(16.) That if foreign animals are not prohibited, and are reported free from infection, and if the Chief Inspector be satisfied that they are not infected, they may, after being washed and disinfected when necessary, as he shall direct, be landed for quarantine on sufficient bond and guarantee."—Agreed to.

"(17.) That all foreign animals be conveyed by water, at the owners' risk and expense, to quarantine, and remain for the terms respectively prescribed for the different kinds of animals, at their owners' risk and expense, and that they be washed, dipped, or disinfected, as the Chief Inspector of Stock shall direct."—Agreed to.

"(18.) That the quarantine for the several animals shall date from day of landing, and shall be as follows:—

"(a) For horses, fourteen days;

"(b) For cattle (including buffalo), sixty days;

"(c) For sheep, ninety days;

"(d) For camels, ninety days;

"(e) For goats, deer, antelopes, llamas, and any other ruminants, sixty days;

"(f) For dogs, six months."

Amendment proposed: "That paragraphs (b), (c), (d), (e), and (f) be struck out, and the following be inserted in lieu thereof:—

"(b) For cattle, sheep, pigs, goats, deer, antelopes, llamas, and any other ruminants, sixty days;

"(c) For camels, ninety days;

"(d) For dogs, six months."

Amendment agreed to.

"(19.) That all foreign sheep landed in the colonies forthwith receive two or more dressings with tobacco and sulphur, or with lime and sulphur."—Agreed to.

"(20.) That, on the expiry of the term of quarantine prescribed for foreign animals, they be examined by a qualified veterinary surgeon and an Inspector of Stock, and released on the order of the Chief Inspector."—Agreed to.

Proposed: "12. That dogs on board a vessel in any Australasian port not intended to be placed in quarantine be kept securely confined and fastened, to the satisfaction of the Inspector, and the owner shall give a bond that the dogs shall be so kept; but the Inspector, if he deem it necessary, may place them in quarantine."—Negatived. Clause struck out.

Proposed: "13. That dogs be quarantined in the Government quarantine-grounds only."—Agreed to.

Proposed: "14. That foreign stock be not transhipped without the permission in writing of an Inspector, and that no foreign stock be put on board any Australasian vessel unless they have undergone quarantine and otherwise complied with the regulations referring to foreign stock."

Amendment proposed: "That the words 'foreign stock be not,' in the first line, be struck out, and the words 'no foreign stock nor skins be' inserted in lieu thereof."—Agreed to.

Clause as amended agreed to.

Proposed: "15. That foreign stock, and the stalls and pens used by them, and the attendants' clothes and effects, on board a foreign vessel in any Australasian port be disinfected as the Chief Inspector may direct."—Agreed to.

Proposed: "16. That Australasian stock coming into direct or indirect contact with foreign stock, or with infected stock, be deemed infected stock."

Amendment proposed, "That the words 'foreign or' be inserted after the word 'deemed' in the second line."

Mr. TABART said this clause bore on the matter referred to in the letter received from Messrs. Huddart, Parker, and Co. His opinion was that the steamer "Tasmania" should be placed on the same footing as other vessels, such as the "Talune," "Oonah," &c. He was in favour of reducing the period of quarantine from six to three months, but did not think it should be made retrospective.

Mr. PARK thought it would strike the Conference as being somewhat absurd that, while sheep from England, America, or anywhere else had been admitted with a quarantine of ninety days, yet a ship which had carried foreign sheep and was not subject to scab should be subjected to six months' prohibition. It was much more easy to disinfect a ship.

Mr. PHILLIPS said that in his district they had a great fear of introducing the foot-and-mouth disease. They desired to have steamers quarantined for the full time, as it was believed that it was through vessels that it might be introduced.

Amendment agreed to. Clause as amended agreed to.

Proposed: "17. That if the Inspector is doubtful as to the freedom of any stock from infection he may temporarily detain them on board ship, or in some convenient place, at the owners' expense, where they may be dressed or disinfected as the Inspector directs."—Agreed to. (See page 45.)

Interchange of Australasian Animals.

Proposed: "18. That no colony be deemed to be a clean colony in which scab exists or has existed within the next-preceding two years, and no sheep nor sheepskins shall be introduced except from a clean colony."—Clause postponed. (See page 17.)

Proposed: "19. That no sheep shall be imported except by vessels that have not traded to any but a clean Australasian colony within the next-preceding six months, nor by any vessel which shall within that period have had any sheep on board from any colony or country other than a clean Australasian colony, and the captain of the vessel shall when required make a declaration to that effect."

Amendment proposed: "That the words 'except' and 'not' be struck out in the first line, and the word 'three' be substituted for 'six' in the second line."

Amendment agreed to, but clause postponed for further consideration. (See page 17.)

Proposed: "20. That all stock intended to be landed shall be accompanied by a declaration from the owner and a certificate by the Inspector or a qualified veterinary surgeon at the port from which such stock were shipped that they are not infected, and had not during the next-preceding twelve months been infected, and that they are from a clean colony."—Agreed to.

Proposed: "21. That, if the Inspector be doubtful as to the freedom of any stock from infection, he may temporarily detain them on board ship or in some convenient place at the owners' expense, and they may be dressed or disinfected as the Inspector may direct."—Agreed to. (See page 45.)

Proposed: "22. That if on examination by the Inspector or a qualified veterinary surgeon, and the production of the necessary declaration and certificate, the Inspector considers the stock free from infection, he may allow them to land."—Agreed to.

Proposed: "23. That if the stock be found to be infected they may be destroyed, or otherwise disposed of, as the Minister directs, without compensation."—Agreed to.

Proposed: "24. That where an outbreak of disease occurs in any colony the neighbouring colonies may, pending the extent and risk of the outbreak being definitely ascertained, at once issue a prohibition against the introduction of stock from such colony; and that the duration of the prohibition depend upon the amount of risk arising from such outbreak."—Agreed to.

Proposed: "25. That sheep imported into any colony, and certified by an Inspector of that colony as free from infection, may be introduced into any other colony if found to be so by the Inspector of the colony into which the sheep are being imported."—Agreed to. (See page 45.)

Proposed: "26. That Australasian dogs, accompanied by a declaration by the owner and a certificate from the Inspector or veterinary surgeon, be allowed to land on the permit of a Customs officer."

Amendment proposed: "That the following addition be made to the clause: 'but, in the event of any colony or colonies not carrying out the regulation requiring foreign dogs to be quarantined in Government quarantine-grounds only, all dogs arriving either by sea or land from any such colony or colonies shall be deemed foreign stock.'"

Amendment agreed to.

Clause as amended agreed to. (See page 46.)

Proposed: "27. That no Australasian stock be transhipped in any Australasian port without permission of the Inspector."—Agreed to.

PRIVATE QUARANTINE-GROUNDS.

Mr. LAWRY gave notice of motion to the following effect: "That, in the opinion of this Conference, the proclamation of private premises as quarantine-grounds for imported stock constitutes a grave public danger, by virtually abolishing all safeguards against the introduction of disease."

The Conference then adjourned till 10 o'clock next day.

SECOND DAY.—WEDNESDAY, 26TH OCTOBER, 1892.

Present: Mr. J. Roberts, C.M.G., Acting-Chairman; and Messrs. A. Bruce, New South Wales; P. R. Gordon, Queensland; T. A. Tabart and A. Park, Tasmania; J. D. Ritchie, J. F. McClean, Coleman Phillips, W. Boag, T. Brydone, F. Lawry, and J. McNicol, New Zealand.

Mr. McNicol was introduced to the Conference, and took his seat as a representative of New Zealand.

The minutes of the previous meeting were read and confirmed.

SCAB, NEW ZEALAND.—(Continued from page 11.)

Mr. RITCHIE, replying to Mr. Tabart's motion on this subject, notice of which was given at the previous sitting, said he had supplied a report that morning which he desired that gentleman to look at. With regard to the first part of the motion, he (Mr. Ritchie) had searched the *Gazette* notices, and had failed to find any Proclamation declaring the colony to be clean. The only notification they had to that effect was to be gathered from the printed lists in the *Gazette*, which gave the number of infected sheep at each quarter of the year. Of course, taking them off the infected list was tantamount to declaring them to be clean. It would be seen by the *Gazette* notices produced that there were no sheep in the colony on the infected list on the 30th June, 1890. The second part of the motion was answered by his remarks on the first, and the third part was covered by the Inspector's reports. With regard to the work done during the past two years, he might say that the Kaikoura and Marlborough country generally had been thoroughly scoured by men employed by the Government; and, although a number of wild and marked sheep had been killed, there was not a scabby sheep to be seen. There were some two thousand in the Marlborough-Nelson District on the infected list for March, 1890; but these were withdrawn from the infected list in the following quarter—June—so that they were regarded as clean from that date. With reference to the Auckland District, it would be seen by the reports supplied to the department on the 3rd April, 1890, that the Inspector states, "The Kaiawa flock at Miranda is now the only one on the infected list in my districts—Auckland, Waikawa, and Miranda. These Kaiawa sheep will be mustered for inspection next week; and I quite expect them clean, and to give them a clean certificate." If they looked at the *Gazette* notice they would see that these sheep in the Auckland District came off the infected list in June following, so that they got a clean certificate on that date. They would also notice that that report was given by a different Inspector, Mr. Clifton, who took charge of the district from Mr. Bayly.

Mr. TABART would like to know what time had elapsed between Auckland being declared clean and the date of the subsequent outbreak.

Mr. RITCHIE said there were no sheep on the infected list in 1887, but they would find some on the list in March, 1889.

Mr. TABART asked if the Auckland District was clean prior to 1887.

Mr. RITCHIE said he had not gone so far back as that.

Mr. TABART considered it important to know, if these sheep were clean in 1887, what was the cause of the outbreak.

Mr. LAWRY said, perhaps he might be able to give some information about the sheep at Miranda, because he had been familiar with the facts. The Auckland flocks had been declared clean for some time previous to 1887, except in the case of an outbreak in the Waikato. Scab had broken out in the Coromandel district, and it was presumed that Mr. Porter's flock had become infected in consequence of his bringing a few sheep from Coromandel; but they had been clean since that time—he thought, about three years. Mr. Porter's flock had been kept in a bight in the river, and were confined. They were kept there until they were absolutely clean. That was three years ago. They could not get away.

Mr. BRUCE asked for proof of the statement in respect to the Marlborough District.

Mr. RITCHIE said he had had a special inspection made of the Marlborough country. So far as the department knew, they had had no infected sheep since the 30th June, 1890.

Mr. BRUCE asked what steps had been taken to satisfy the department that there were none.

Mr. RITCHIE replied that since that period the Government had spent thousands of pounds in scouring the Marlborough country. The flocks had come into muster under inspection for two years past, and there had not been a single scabby sheep amongst them. There were two Inspectors stationed at Blenheim, and two at Nelson. A new Inspector had been appointed, and he also has made an inspection of the flocks. Last year he (Mr. Ritchie) gave the Inspectors strict instructions to be at the sheds when the sheep of those doubtful flocks came in, and they were reported to be clean then. The Inspectors also went out and camped on the run, and rounded up the sheep. They shot a few to see if they were infected. One or two of them were wild sheep.

Mr. GORDON wished to have placed on record whether an inspection of the Maori sheep had taken place, to see that there was no disease amongst them.

Mr. RITCHIE said there had never been any disease amongst the Maori sheep within the knowledge of the department. Last year he had sent a man out, and he came back with a clean report. They had not been able to get a thorough inspection of all the flocks, but they had been coming out to every sale, and, so far as was known, nothing was wrong with those sheep. He had Inspectors now out for this purpose. They had been away for about ten days, and he expected them back in a day or two.

Mr. McNICOL, referring to the Maori sheep, said he had passed thousands of them through his hands every year, and he could honestly say that the Maori sheep as a rule were in a better condition than European sheep. In fact, people buying hoggets preferred to get those from the King-country, as being bigger and stronger. The Maoris have sheep-dips, and now make a regular practice of dipping their flocks,

The ACTING-CHAIRMAN asked if Mr. Tabart had got all the information he required, as the department was very anxious to afford all possible information. The department was quite satisfied that scab had been out of the country for two years. He would be glad to give any further information that Mr. Tabart might require.

Mr. RITCHIE said that, so far as he was concerned, as representing the department, he would take very good care that he would have a satisfactory report from the Inspectors before the *Gazette* notice appeared declaring the colony clean. He would have those reports in writing from the Inspectors, and he thought that, as they were capable and reliable men, they could very well be trusted. It might be a week or a fortnight before this was done, but when it was done he thought the other colonies might consider it quite safe.

Mr. TABART said his reason for tabling the motion was to elicit every possible information from the Chief Inspector of Stock as to the mode in which scab had been dealt with in New Zealand. His reason for doing so was—of course he spoke under correction—that he was under the belief that the Auckland Province had been declared clean, and notified to the Government of Tasmania as being clean, something like four years ago; and what he could never understand was that an outbreak had taken place in the district after it had been proclaimed clean; because they all knew that there was no such thing as spontaneous generation. Scab must have been there, and been there at the time the Proclamation was issued. He had had a great deal of experience in regard to the cleaning of different flocks of sheep in his colony, and found that the difficulty had always been to elicit from the owners of property the true state of their flocks. On one occasion, when in charge of a district, he was called upon to inspect a flock which was supposed to be clean. He inspected the sheep, and could find nothing wrong, but previous to the sheep being yarded he looked round the yards and found no grass in them. He thought it a strange circumstance where sheep were clean, or reported to be clean. He also discovered traces of tobacco having been used. The owner of the property afterwards asked if he (Mr. Tabart) was pleased with the inspection, and he replied, "Certainly not." The owner then said, "Why not?" and he replied, "I will communicate my opinion to the Chief Inspector of Stock." A few days afterwards he (Mr. Tabart) returned and told the owner that he wanted to look at his sheep. The owner said, "Shall I bring them in for you?" and he replied, "I would prefer riding over the run myself." He (Mr. Tabart) had not gone far before he found that the sheep he had inspected were mixed up with scabby sheep. Now, is it not probable that the same thing might occur in New Zealand, particularly in such districts as Marlborough and Nelson? His idea was that in provinces like those, where there were so many scabby sheep, the Chief Inspector should, before declaring the colony clean, concentrate all the Inspectors, and have a simultaneous inspection; for he knew that stock-owners were very chary about allowing an inspection of their sheep when they were doubtful as to their condition. He had listened to the statement given by the Chief Inspector of Stock for New Zealand, and he only hoped that his expectations would be realised.

The ACTING-CHAIRMAN asked if they were to infer from Mr. Tabart's remarks that he was not altogether satisfied that the colony had been cleaned.

Mr. TABART said he certainly thought there should be a concentration of Inspectors, so as to get simultaneous inspection as far as possible. They had the fact that Auckland had been proclaimed clean in 1887, and that this was followed by an outbreak two years afterwards.

The ACTING-CHAIRMAN said it amounted to this: that Mr. Tabart would not be prepared to recommend his Government to declare the colony clean unless some such steps as he had indicated were taken.

Mr. TABART replied that that was what he meant.

The ACTING-CHAIRMAN said it remained for Mr. Ritchie to decide what steps he should advise the Government to take in the direction indicated. But he assumed from what Mr. Tabart had said that, if those steps were taken and a clean certificate given, he would then be prepared to recommend that the restrictions be removed.

Mr. TABART said it struck him that from the information given it had only been clean twelve months.

Mr. RITCHIE said they had been taken off the infected list since June, 1890, so that virtually all the sheep were clean since that date. By the *Gazette* notice it would be seen that there were none in June, 1890; none in June, 1891; and none in June, 1892. With regard to the Miranda sheep, there were only some two or three hundred, and he was perfectly certain from Mr. Clifton's report that everything was right there. With reference to the Marlborough sheep, it was a rougher country, and partly unstocked. He had given special instructions to the Inspector to go up there while the shearing and mustering were going on. The last inspection was made by an entirely different man. He did not want to do anything before it was perfectly safe, but he was quite willing to take any steps the Conference wished him to take.

Mr. COLEMAN PHILLIPS said the Coromandel district was a goldmining and sawmilling district—not a sheep-farming district at all. There happened to be turned out some years ago eight or ten Lincoln sheep that got into the bush. These sheep came out, and were taken over to this flock at Miranda. He did not remember Auckland having been scabby before. It was a very minor matter.

Mr. RITCHIE understood that Mr. Tabart proposed to take the date from 1891.

Mr. TABART said that was so.

The ACTING-CHAIRMAN asked if he was right in assuming that, in the event of the Sheep Department taking steps to see that the country was clean between now and January next—in the event of this work being done for which Mr. Tabart stipulated, and no further scab being found—he was prepared to recommend his Government to remove the embargo from New Zealand sheep as from January, 1893.

Mr. TABART hoped they would not think he was too persistent about this matter. He wished to see the whole thing cleared up. This matter of scab was very important to his colony, for if

they opened Tasmania to a doubtful country it might interfere with their staple industry ; and there seemed to be, even in the mind of the Chief Inspector himself, great doubt as to whether the colony was clean or not, taking the statement which he made to the Conference of delegates from agricultural and pastoral societies held in Christchurch on the 26th May, 1892. He spoke as follows : “ That a rigorous muster had been commenced on the previous day. As soon as he was assured that that district was free from scab, he should take the necessary steps to have the colony declared clean. The Australian colonies held their regulations till the end of the present year, when they would relax them.” They wanted to be careful in a matter of this kind. They had only a small number of sheep in Tasmania, but the subject was a very important one to them. Mr. Bruce and Mr. Gordon were interested, and he should like to hear them express some opinion.

Mr. RITCHIE said he wanted to be very careful before recommending the Minister to issue the Proclamation declaring the colony clean, and he would take care that this was not done until he was absolutely certain that the country was clean. For this purpose he had taken great care that every chance should be given to the Inspectors to examine doubtful flocks, and, having done that, he thought, when the Proclamation was issued, the other colonies could safely rely on New Zealand being clean.

Mr. GORDON said, at the last Conference there must have been a doubt in the minds of the delegates that the matter had not been properly dealt with ; but from what had been said, and from Mr. Ritchie's earnestness in the matter, he was satisfied that the colony was now clean.

Mr. BRUCE said that if Mr. Ritchie would carry out the course suggested by Mr. Tabart, of making a thorough inspection of flocks at the coming shearing, and found no signs of disease, he should be inclined, like Mr. Gordon, to recommend his Government to take the embargo off. It would only be a matter of a few months now. It might be considered necessary that they should take some precaution in addition. It might be that they should require to dip for a time ; but that would be a matter which would involve very little expense, and no delay. If no disease was found at the next shearing, and if Mr. Ritchie would make a careful inspection of the doubtful country at that time, and still found no signs of disease, he (Mr. Bruce) would recommend that the prohibition be taken off.

Mr. RITCHIE, on behalf of his department, would undertake that a thorough inspection was simultaneously made of each individual flock in the doubtful country. He had three men in the Marlborough District now, and they could spend the whole of their time there. There were only a few flocks, at Mount Patriarch, which were doubtful, and he would undertake to have them thoroughly inspected, and would supply the other colonies with copies of the Inspectors' reports.

The ACTING-CHAIRMAN said that any exportation when the ports were opened would undoubtedly come from the southern portions of New Zealand, which had been entirely free from scab. There might be a few exported from Auckland, but the larger number would come from the South, and would be principally long-woolled sheep from the Bluff, and down South generally. He might mention his own experience with regard to one of his properties on the coast. The front country was cleared, but the back was dense bush. They found scab there about eight or nine years ago, and had a difficulty with it. He knew that for two or two and a half years the Government kept men in the bush scouring and killing the sheep. The extent of country was perhaps not more than fifteen miles of bush, and they had men during the whole of that period destroying the sheep. They had had no wild or scabby sheep since that time. He only mentioned this to show how the department had been dealing with the matter.

Mr. BRYDONE gave notice of the following motion : “ That if, after the next shearing of the flocks in the last-infected districts, and on inspection, the said flocks be found free from scab, this Conference recommends the different Australasian Governments to remove the restrictions at present in force against the importation of New Zealand sheep, and also from the intercolonial steamers.” (See pages 8, 9, and 35.)

PRIVATE QUARANTINE-GROUNDS.

Mr. LAWRY moved, “ That in the opinion of this Conference the proclamation of private premises as quarantine-grounds for imported stock constitutes a grave public danger, by virtually abolishing all safeguards against the introduction of disease.” Scarcely a year passed without Cattle Boards being pestered by importers to allow private quarantine, and he thought it would strengthen the hands of the Government if such a resolution as he had proposed were passed. He would not detain the Conference further, as it appeared to him to appeal to the common-sense of all present.

Mr. BOAG seconded the motion.—Agreed to.

Consideration of the resolutions passed by the previous Conference was resumed.

INTERCHANGE OF AUSTRALASIAN ANIMALS.—SCAB.

Clause 18, held over from the previous sitting for further consideration, was passed as printed—viz., “ That no colony be deemed to be a clean colony in which scab exists, or has existed within the next preceding two years, and no sheep or sheepskins shall be introduced except from a clean colony.”

Clause 19, postponed, was amended as follows : “ That no sheep shall be imported by vessels that have traded to any but a clean Australasian Colony within the next preceding three months, nor by any vessel which shall within that period have had any sheep on board from any colony or country other than a clean Australasian Colony ; and the captain of the vessel shall, when required, make a declaration to that effect.”

Mr. RITCHIE thought that this clause would affect New Zealand in the event of the colony being declared clean, as intercolonial vessels would not be able to carry New Zealand sheep unless the embargo were also taken off the steamers.

Mr. BOAG asked if the vessels would not be considered clean if the colony were declared clean.

Mr. RITCHIE thought not, as matters stood at present. It would be at least three months before the stock could be carried, and another three months before it could be taken on board by the steamers, thus considerably affecting the intercolonial trade.

Mr. TABART considered that if the colony were declared clean the vessels trading to the colony would also be deemed clean. The sheep could not be carried by an English vessel, say, to New South Wales, but vessels like those of Messrs. Huddart, Parker, and Co., and the Union Steamship Company, would be able to carry them.

The clause was agreed to as amended.

DISEASES IN ANIMALS.

Proposed: "28. That this Conference considers that M. Pasteur's vaccine of anthrax is effective, and recommends that assistance be given him in establishing agencies in all the colonies, with a view to those owners who require the vaccine obtaining and using it."—Agreed to.

Proposed: "29. That the travelling, selling or offering for sale, or slaughtering for food, of any animals affected by the diseases known as tuberculosis and actinomycosis, or the using of cows affected by tuberculosis or actinomycosis for dairy purposes, be punishable by law; and that there be a more thorough inspection of dairy-cattle in use in populous districts."

The ACTING-CHAIRMAN said that in New Zealand a Stock Inspector attended the market, and if he were not satisfied with the condition of an animal offered for sale he informed the owner that he could not allow it to be slaughtered for consumption. He thought that there were many instances where animals were condemned unnecessarily, or on insufficient grounds. He knew of one case where the Inspector had condemned an animal as cancerous because it had a large jaw. He believed great hardship was sometimes caused through want of knowledge on the part of those invested with authority in such matters.

Mr. PARK thought, before power was given to Inspectors to order the destruction of animals, they should see that these Inspectors were possessed of the necessary technical knowledge. Many ordered animals to be destroyed simply because they thought they were suffering from tuberculosis, without having identified the disease. An animal might be destroyed some day through an alleged disease which might afterwards be refuted, and the colony be involved in great loss. He had examined a New Zealand cow said to be affected with tuberculosis, but when microscopically examined he found actinomycosis in every part. It was very simple for the Inspectors to acquire the necessary knowledge to discriminate between certain diseases, and they should be made to do so.

Mr. BOAG said that at Addington stockyards there were two Inspectors—one of sheep, having every requirement in the way of knowledge, and the other appointed by the County Council for the inspection of slaughteryards. Both attended regularly, and if the latter saw an animal about which he was doubtful he had power to call in a professional and detain the beast until he was satisfied that it was fit for consumption or otherwise. The cases they had to inquire into were very few indeed. In Canterbury they took all the care and trouble in that way possible.

Clause agreed to.

Proposed: "30. That the Conference expresses its belief in the efficacy of inoculation as preventive of pleuro-pneumonia."—Agreed to.

Proposed: "31. That the Conference affirms the principle of compulsory inoculation for pleuro-pneumonia where the disease appears."—Agreed to.

Proposed: "32. That there be no restrictions against the free interchange of inoculated cattle bearing the inoculation ear-mark, but that a declaration by the owner that the cattle have been duly inoculated accompany them."

Amendment proposed: "That the words 'on the Continent of Australia' be inserted after the word 'That,' in the first line."—Agreed to.

Clause as amended agreed to.

Proposed: "33. That all sheep infected with catarrh be destroyed; that the owners be recompensed to the extent of two-thirds the value of sound sheep at the date of destruction; and that the run or place on which the sheep were pasturing be strictly quarantined for six months."—Agreed to.

Proposed: "34. That, as the conditions are so various in the different colonies, each colony should legislate for itself, where practicable, on the subjects of fluke, worms, and foot-rot in sheep."—Agreed to.

Mr. BRUCE desired to obtain some information with regard to worms.

Mr. McCLEAN said they had no fluke in New Zealand, and had no legislation dealing with worms or foot-rot. It was proposed to legislate for foot-rot, making it an offence to drive sheep suffering from foot-rot along the roads, and giving the Inspector power to have sheep affected with it dressed. They had followed what had been done in New South Wales with regard to worms—namely, circularising the owners; and in the circulars issued they had incorporated the New South Wales pamphlet on worms. The treatment commonly used was turpentine and oil. There were a great many proprietary medicines, but no official tests had been made of these. There were no patent licks used in the colony to any extent, but some were being introduced.

Mr. BRYDONE said he had had some experience of lungworm, and had lost a great many hoggets by it until it was found out how to treat it. He used turpentine and oil with a syringe. That, with a change of pasture, had been found almost a perfect cure. Latterly he had heard about a syringe for injecting it from the outside. He sent Home for half a dozen, and supplied his company's stations with them, and their managers invariably used them now. This remedy had almost an immediate effect, and generally only one dose was required. Immediately they saw any symptoms of the disease among the hoggets they gave them a dose, and that generally stopped it.

The ACTING-CHAIRMAN said that, as far as his experience of lungworm had gone, he found the remedy was a constant change of paddocks. If the sheep were kept in one paddock for any length of time the disease became intensified. Dosing was a certain remedy, but there was nothing like a change of pasture every week. His company's sheep were generally dosed three times during the winter with turps and oil, and last winter they used brine mixed up strong enough to float an egg.

Mr. COLEMAN PHILLIPS considered the spelling of the paddocks very effective, as the grass became infected by the tapeworm. A neighbour of his had complained very much about the loss of his young sheep, which he (Mr. Phillips) attributed to the presence of seed worm-eggs in the grass, as the owner's land was subject to flooding from a lake, and was very rich land.

The ACTING-CHAIRMAN said, spelling the paddocks got rid of a lot of filth about the ground. He frequently advocated these being stocked first by cattle and then by sheep. He believed, if that were done the sheep would be healthier and the sheep-owner better off, owing to the heavy loss every year with hoggets.

Mr. BRUCE asked what was used in New Zealand for foot-rot.

Mr. RITCHIE said the principal thing was the arsenic-trough. He did not favour paring too close, as he thought that sometimes more harm was done by this than leaving the sheep alone.

Mr. BRUCE took it that Mr. Ritchie believed more in prevention than curing. Some of the sheepowners of New South Wales were adopting that principle now, and very great relief was felt in consequence.

Clause agreed to.

Proposed: "35. That the Governments of Western Australia and New Zealand be urged by the Governments of the colonies represented at the Conference to take more energetic steps than those at present adopted for the speedy eradication of scab."

Amendment proposed, "That the words 'and New Zealand' in the first line be struck out." —Agreed to.

Clause as amended agreed to.

Proposed: "36. That steps be taken by the several Australasian Colonies to thoroughly eradicate ticks and lice in sheep."

Mr. BRUCE asked if New Zealand found that English sheep were more subject to ticks and lice than merino.

The ACTING-CHAIRMAN said that the ticks were very bad on merinos, but during the last few years he thought the deterioration in value had made the sheepowners rather inclined to dip their merino flocks. As for lice, they were prevalent over the whole of New Zealand. They dipped half-bred, and anything higher up to the long-wool. There were a great many dips, but each man had got his own particular fancy, and all got a pretty good sale. He thought that possibly not less than two-thirds of the sheep of the whole colony were dipped for either lice or ticks. For lice they had even to dip more than once unless they were dipped very effectively. Speaking from his experience of dips generally, he had come to the conclusion that there was more fault to be found with the administration of the dip than the dip itself. It was a great trouble to sheepowners to have to dip two or three times. This was caused, first, by having an imperfect form of dip: it was necessary to keep the sheep in, if possible, from a half to three-quarters of a minute. Another cause was imperfect mustering: a few were left out, and the natural result was that they infected the dipped sheep again in a very short time. The dips his company generally made were from 60ft. to 65ft. long, and that gave ample time for the sheep to go through without any stoppage at all. They found that the best length if the dips were properly constructed. He could give some plans of the dips. A very simple mode of plunging the sheep into the dip was to have a shoot or incline and a bag at the end. The old sheep were a little hard to drive through, but the young sheep would go as fast as they could. They had only to let them go. They generally ran the liquid from the draining-yards into a settling-tank, and thence into the dip. They did not like the side-dips; they found the inclined shoot much better.

Mr. BRUCE asked if the arsenic dip was prepared by the owner himself for lice and tick.

The ACTING-CHAIRMAN said it was. His company had used that last year, and he was sorry to say that it did not prove effective. It was tried a good deal in the Hawke's Bay Province last year; but the experience was that an arsenic dip was not effective—so much so that his partners said that they would not use it again. It robbed the wool of its nature. Some of the patent dips had been disastrous in their effects. A maker down South had had to pay very heavily indeed, for his dip had killed in one instance a large number of valuable stud rams.

Mr. BRUCE asked if they dipped from six weeks to two months after shearing.

The ACTING-CHAIRMAN said the merinos were sometimes dipped just off the shears, and the long-wools in about three months.

Mr. COLEMAN PHILLIPS said, for many years he had been led to use a certain dip, and had found his flock getting more lousy every year. He quite agreed with the remarks of Mr. Roberts as to the value of long dips. He (Mr. Phillips) only put two sheep in the draw, and the others went in as fast as they could go.

Clause agreed to.

Proposed: "37. That any animals found to be infected with glanders, farcy, foot-and-mouth disease, rinderpest, sheep-pox, swine-fever, rabies, trichinosis or any other infectious or contagious disease not existing within the colonies be at once destroyed."—Agreed to.

Proposed: "38. That it is desirable that an efficient and competent staff of Inspectors of Stock be maintained in each colony to prevent the introduction and to arrest the spread of scab or any other contagious or infectious disease; and that the Governments of Queensland, South Australia, and Western Australia exercise the greatest possible vigilance with respect to their northern ports to prevent the introduction of diseases from Eastern, Indian, or Chinese ports."

Mr. BRUCE thought it was of little use passing a regulation which was observed in one colony and not in another. The stock interest was by far the largest in all the colonies; yet in some of the colonies a very small staff of Inspectors was kept, and when a complaint was made about not getting satisfactory certificates they were told by these colonies that they could not do better because they had not a sufficient staff. His remarks did not apply to New Zealand. In his colony they got a note from a neighbouring colony to this effect: without looking at the stock, that, so far as they knew, the owner's statement that they were free from disease was a correct

one. He (Mr. Bruce) considered that was not satisfactory. They might just as well take the stockowner's declaration. When they looked at it in this light—that it cost comparatively little to have an efficient staff in every colony—the Conference ought to try and get those colonies which had not an efficient staff to put on more Inspectors. New South Wales had a fairly efficient staff, numbering forty-five Inspectors, and they found it cost one-fourth of a farthing per sheep per annum to sustain that staff. That should be regarded in the light of insurance against disease, and he thought that was a very low rate to pay for it. He considered it unfair to get such certificates as he had described when it would cost so little to maintain an efficient staff. It was well worth while to employ an adequate number of men, as would be seen from what they did in his colony. They dealt with diseases in stock; they protected the reserves from trespass, and also the property of the owners through which travelling stock was taken; they enforced the provisions of the Brands Act for tracing infected stock, for preventing stock-stealing, and assisting in the recovery of stray stock, and preventing confusion at musters; they acted as Inspectors of Commons, and supervised the pounds and poundkeepers; they enforced the provisions of the Pastures Act, which dealt with noxious animals; they were Inspectors under the Rabbit Act and under the Diseased Meat and Diseased Animals Act, and overseers under the Public Watering-places Act. There was no colony employing an efficient staff but would get an excellent return for the cost. He thought they might amend the clause under notice by providing that if a certificate did not state that the stock had been inspected the stock should be put under certain restrictions. If they did not commence federation with respect to diseases in stock their efforts for the prevention of disease would be very imperfect. With respect to Queensland, South Australia, and Western Australia not exercising sufficient vigilance at their northern ports, he thought they were in considerable danger. Port Darwin had no Inspector of Stock, and there was great danger of disease being imported from Indian or Chinese ports. It was necessary to act in this matter as the whole of Australasia, and each colony should do its part in that direction fairly. He would suggest that the clause be postponed with a view to amending it.

Clause postponed (See p. 29.)

Proposed: "39. That regulations in regard to the travelling, movement, or conveyance of animals be left to be dealt with by each colony within its own boundaries."—Agreed to.

Proposed: "40. That all drafts of laws or regulations dealing with the diseases of animals be, as far as practicable, submitted by the Government framing them to the Governments of the other colonies for remark before they become law; and that proofs of any papers or reports relating to pastoral matters which would be likely to be of benefit or interest to stockowners generally be also forwarded, in order that the other Governments may, should they see fit, order a supply of copies for distribution."—Agreed to.

Proposed: "41. That this Conference affirms—(a.) The desirability of establishing a laboratory or institution for the purpose of investigating and experimenting upon any diseases to which stock are or may become liable, particularly, in the first instances, pleuro-pneumonia, anthrax, and tuberculosis. (b.) That the institution be a permanent one, and to be supported by the respective colonies becoming parties to the arrangement *pro rata*, according to the number of stock, sheep, cattle, and horses returned for the year preceding the assessment. (c.) That a permanent Board of Direction be formed, to be composed of members to be appointed by the Government of each contributing colony. (d.) That a competent European scientist be engaged as director, who shall deliver an annual course of lectures to students, and who shall be allowed to charge fees for so doing. (e.) That the laboratory or institution shall be called the Australasian Stock Institute, and that it be located in the Colony of New South Wales."

Amendment proposed, "That all the words after the word 'tuberculosis' in the fourth line be struck out."

Mr. BRUCE said this had been practically acted on in New South Wales. The stock of Victoria and South Australia was comparatively small in number, and for the sake of their contributions to this institute its establishment would not be stopped. They had Dr. Loir there, and had agreed to commence in a temporary way with him as the scientist. A resolution was passed by the chief Inspectors for New South Wales, Queensland, and Tasmania, strongly recommending that they make a beginning. They had a laboratory and appliances at Rodd Island, and were desirous of knowing whether New Zealand would bear a proportion of the expense. The estimated annual cost to be contributed by the several colonies *pro rata* according to the number of stock had been shown in the report of the Conference of Chief Inspectors of Stock held in Sydney in 1891. New South Wales would contribute £584; Victoria, £215; Queensland, £541; South Australia, £85; Tasmania, £26; Western Australia, £34; and New Zealand, £215. By-and-by, no doubt, they would have to employ two or three more scientists in different subjects; and the idea was that at this institution students should be taken, that they might be initiated into the knowledge of bacteriology. In the meantime the institution would take up any work which might be required to be done. Dr. Loir was at present preparing the virus for anthrax; and he was also prepared to take up vaccine for blackleg, and a preparation for testing whether cattle were affected with tuberculosis or not.

The ACTING-CHAIRMAN said he was quite in sympathy with the proposal, but failed to see that any practical effect could be given to it. He did not believe the Victorians would for a moment agree to the location of the institute as suggested. New South Wales was the mother-colony, and, no doubt, was entitled to the preference; but, if they could not get unanimity among the various Governments in this matter, he thought it would fail. He did not speak in any spirit of antagonism, but simply thought the project was not practicable. Each colony wanted an institute of its own to be of much service.

Mr. BRUCE said, what Mr. Roberts proposed would not do all that was required. Unless there was an efficient staff the institute would be of comparatively little use; and these men would have to be of good standing. Each colony would have its own subjects dealt with to a certain extent, and the several matters would be worked out thoroughly by a body of fully-qualified men. There

were variations of experience in the different colonies, and the concentration and study of these would result in great benefit to all.

Mr. RITCHIE asked if Victoria agreed to co-operate.

Mr. BRUCE did not know what they intended to do. They had agreed to differ.

Mr. COLEMAN PHILLIPS supported the amendment, and agreed that if an Intercolonial Institute were established the location most suitable for it was Sydney.

Mr. RITCHIE affirmed the desirability of establishing such an Institute, and agreed that it was essential to have a thoroughly efficient staff. At the same time New Zealand was so isolated that, though it might get some general advantage, it would not get so much as might be desired. He thought the Government might be inclined to give a small sum towards establishing the Institute, merely for the general benefit of the colonies, but in his opinion the benefit would be primarily for New South Wales, or the colonies on the continent.

Mr. COLEMAN PHILLIPS pointed out that New Zealand was only three days' journey from New South Wales. It took far longer to go to the borders of New South Wales than to go from Auckland to Sydney.

Amendment agreed to.

Mr. BRUCE moved, "That the word 'Australasian' be inserted before the word 'laboratory' in the first line."

Amendment agreed to. Clause as amended agreed to.

Proposed: "42. That the Inspectors of the various slaughterhouses and dairies shall, as far as possible, be qualified veterinary surgeons."—Agreed to.

Proposed: "43. That in the opinion of this Conference a Commission of experts should be appointed to investigate and report on all specific diseases known to exist throughout the Continent of Australia, New Zealand, and Tasmania—namely, tuberculosis, actinomycosis, coccidium, Australian stringhalt, ophthalmia, pleuro-pneumonia, anthrax, and coast disease."—Negatived. Clause struck out.

Proposed: "44. That the Conference recommends that the several Australasian Governments be asked to assist in giving encouragement to the fresh-meat trade by erecting suitable market-buildings and chilled-chambers, establishing killing and chilling dépôts at the principal centres of stock traffic, putting on the necessary refrigerating-cars, carrying the meat at a reasonable rate, and adopting a uniform railway gauge."—Negatived. Clause struck out.

Proposed: "45. That it is most desirable that a stud-book for horses, cattle, and sheep be kept in each colony as a register; and as the best means to accomplish this end the different representatives present be requested to communicate with their principal agricultural societies, and endeavour to prevail upon them to keep such register."

Mr. BRUCE said that the clerical work necessary for establishing a stud-book, it had occurred to him, might easily be undertaken by the department of which he had charge, and he had recommended this to his Minister some time ago if the breeders of the different descriptions of pure-bred stock would form themselves into associations and appoint their own committees to pass the entries and do what might be called the most important part of the work. The Minister approved of this proposal to a certain extent, and a circular was sent round to the Stock Boards to get their views upon it. He thought there were good prospects of his proposal being carried out. The expense would be very little, as he proposed to have the book printed in the Government Printing Office at the cost of the paper and wages. As he dealt with the registration of stock in his department, he could employ some of his staff in the stud-book work at small expense. Breeders' associations were quite common in the Old Country for the registration of thoroughbred horses and different kinds of animals, and he thought it only needed a little assistance such as he had mentioned to set the matter going all over the colonies. If that were done he saw no reason why the stud-books of the different colonies should not be taken as authoritative in connection with the pedigrees of the different kinds of stock.

The ACTING-CHAIRMAN said they already had pedigree-books in New Zealand. The Canterbury Association issued a horse and cattle stud-book, and charged so much an entry and so much for the book to cover cost. It had proved sufficient up to the present time. The book was very well got up, and it was intended to publish it every two or three years, when they got a sufficient number of entries. That was so far as horses and cattle were concerned. With sheep it was very different: these were not known by name, and a record could not be kept. Their Canterbury friends were very enthusiastic in matters agricultural and pastoral, and had published an excellent volume. Mr. Murphy, the Secretary of the Association, took great interest in the work, and the Government had acknowledged it as the official publication.

Mr. RITCHIE stated there was a stud-book for thoroughbreds published privately in Nelson.

Clause agreed to

Proposed: "46. That the means hitherto in use in the different colonies that are infested with rabbits have not had the effect of materially reducing the number of those animals, and that, in consequence, the period of being relieved from the pest is still uncertain, thereby entailing continued loss to the pastoral and agricultural industries of the Australasian Colonies: and that joint action should be taken by the Governments of the different colonies to offer a bonus for a scheme that will lead to the more rapid extermination of the pest than that at present in use holds out the prospect of."

Proposed: "That all words after the word 'pest' in the last line be omitted."—Agreed to.

Clause as amended agreed to.

Proposed: "47. That the resolutions 1 to 8, hereunder, passed by the Royal Commission and reported to the Government of New South Wales, be the measures recommended as altered for adoption by this Conference for dealing with the rabbit-pest.

"(1.) That the responsibility for the destruction of rabbits, whether on freehold or on leasehold land, must rest on the landholder. That with respect to unoccupied Crown lands the State must accept similar responsibility."—Agreed to.

“(2.) That the rabbit-pest has made the continuance of the system of annual leases of Crown lands impossible.”

Before proceeding further with the consideration of subclauses of clause 47 it was decided to hear a paper read on “Successful Rabbit-suppression,” prepared by Mr. Coleman Phillips, as follows:—

SUCCESSFUL RABBIT-SUPPRESSION.

I thought in attending this Conference merely to have placed my views before you, but, as you wish them written, I have much pleasure in doing so. I have now written so many papers upon this subject that I would ask you to excuse any repetition in the present one. I am glad to inform you that the rabbits in South Wairarapa (New Zealand) are still conquered, but that they require watching. Of course, they will always require watching, as it would be a mistake to try and exterminate them. Trying to exterminate rabbits will only increase their numbers. The evidence I gave before the Royal Commission in Sydney in 1888, I am most happy to say, still stands good.

I think now it will be generally admitted that some other remedy than that of rabbit-netting is required. The netting has been tried, but it has not succeeded in conquering the pest as we did in South Wairarapa in 1884–86—over a million acres without its aid. The rabbit has greatly spread in Australia since the netting remedy was adopted. I would ask the members of the Conference to permit me to take them over a little wider field than Australasia in viewing this question.

In Africa there is no rabbit-pest; yet Africa is the oldest continent, geologically and ethnologically. It is the original home of the rabbit and ferret, so far as we can gather. In India, China, and, I may say, the whole of Asia, there is no rabbit-pest; but Asia has always been connected with Africa by a narrow isthmus, so that the measures nature adopted to keep the rabbits down in Africa had a fair road to follow into Asia. The natural enemy followed upon the track of the rabbit, and kept an equal balance of prey upon prey. Had Australia only been connected with south-eastern Asia by a similar isthmus we should have had the rabbit, but not the rabbit-pest. Wallace well explains the reasons of the difference in both flora and fauna owing to this separation. In South America there is no rabbit-pest, and so very few rabbits are to be found there that the hospital authorities of Rio Janeiro lately sent here for a few hundred rabbits for experimental purposes. In North America there are occasional rabbit-pests, but the Indians always say that every seven years a disease arises and sweeps them off. This is the bladder-worm disease to which reference will be made later on. I would refer the Conference to Sir James Hector's correspondence with the Chief Inspectors of Stock in Canada upon this point. In none of these countries did nature use rabbit-netting as a means of suppression. And yet that is what Australia has been relying upon. In Europe—notably, France, Russia, Belgium, and England—they have occasional slight pests, but this is caused, I think, by people preserving the rabbit for a food-supply, as our rabbit-factories are now doing in these colonies. England kills about thirty million rabbits a year, and I think rabbits are even more plentiful in France and Belgium.

A thousand years before Christ the inhabitants of Phœnicia traded down to Spain (Tarshish) for ferrets, then called Tarshish cats. The Biblical people evidently saw the great beauty and utility of tame ferrets and nets. We are almost bound, strange to say, to fall back upon this original mode of suppression. Many verses in the Bible refer to the coney or rabbit, but whether the coney is our present rabbit there is some little doubt.

In the year 1 A.D. the inhabitants of the Balearic Isles petitioned the Roman Emperor to suppress a rabbit-pest, and two legions of the Roman army were sent to put it down. Previous to that time Aristotle relates that burning sulphur on hot coals at the mouths of burrows was tried, but it did not succeed very well. I think the same verdict will ultimately be given against the present use of bisulphide of carbon.

After the Cape of Good Hope had been discovered by the Portuguese, Prince Henry, of Portugal, sent some rabbits and other animals to the isles lying off the western African coast, and, naturally enough, one or two of the islands soon swarmed with rabbits. These held possession for almost centuries, proving that in-and-in breeding does not cause diminution. There are still a few of these rabbits left—a bluey rabbit.

Australia, New Zealand, and Tasmania are only other instances of insular lands becoming the prey of the rabbit when the natural enemy was not introduced with it to keep it in check.

Wild animals—the fox, wolf, lynx, cat, dog, stoat, weasel, &c.—feed upon the rabbit. When very thick, as in North America, where quite lately—that is, within the last three or four years—the rabbit was crossing the frozen Snake River into Oregon in millions, these animals collect, and feed solely upon the one food. Bladder-worm disease ensues, the grass becomes infected, anthrax sets in, and the dead bodies of the rabbits lie thick upon the land. The dingo, fox, snake, wild cat, ferret, stoat, and weasel should be made similar use of in Australia; I think also the kit-fox, for since the kit-fox has been killed off near San Francisco there the rabbit has sprung up again. The tape-worm of the wolf I believe to be the most deadly in its effect, but population always sweeps off this animal, and then a rabbit difficulty crops up. I used in the Wairarapa the bladder-worm from the dog, a much milder form of disease, in which I do not think anthrax supervenes. Liver-rot may, as *Cysticercus pisiformis* is attached to the liver, whereas *Cœnurus serialis* only affects the muscles.

I think M. Pasteur and I, out of the 1,600 applicants for the award, were, after all, upon the right track, although I would point out to M. Pasteur's representative in Sydney that he wished to spread artificially what I desire to spread naturally—that nature never spreads any disease artificially, but always naturally, by means of a host. The grass itself was and still is made use of (the more luxuriant the better) to sweep off the one set of animals which persist in feeding upon it. I can assure the Conference that grass has a wonderful power of protecting itself. It will kill off not only rabbits, but sheep, cattle, horses—anything, indeed, that fails to give it a fair spell. All we have to do is to infect it naturally, not artificially. I think the dingo will

be found of excellent service in central Australia. There appears also to be a further difference between M. Pasteur and myself—that nature spreads anthrax by means of this tapeworm. (There are 250 different sorts of worms, the different kinds of which keep all living things in check—thus, lungworm in sheep, cattle-worms, horse-worms, worms in children, and in man.) M. Pasteur prefers the microbe of chicken-cholera. This may be a blood-poison too, which anthrax is. I fancy, too, that nature has already given Australia a remedy to use against the rabbit—viz., in the disease known as Cumberland disease; so, very great care must be taken in applying the proper remedy. There are different kinds of anthrax. In the bladder-worm of the dog anthrax does not supervene, so that that is quite a safe remedy. Liver-rot (*Coccidium oviforme*) accompanied it with us in South Wairarapa. It was liver-rot which cleared Tintinallongy. I shall be glad to know whether the rabbit has sprung up again there; also whether Cumberland disease has followed in the track of the foxes which were turned out. I think, on the whole, that my mode of spreading diseases natural to the rabbit will be found more suitable and continuous than M. Pasteur's method, although I view any of Pasteur's work with the very greatest respect.

The Government of New Zealand has had on hand for over a year past for publication the whole of the details concerning the actual mode of suppressing the rabbit-pest in South Wairarapa in 1884–86—every step we took, every measure we used. The district stands to-day as clean as when, in 1885–86, I ceased calling my neighbours together to suppress the pest. I think these details should be published, as they would guide village communities for years hence. For we have the rabbit now, and we shall never get rid of it. Suppression consists of two methods—(1) measures of clearance, (2) measures of avoidance.

Apart from rabbit-netting, to which I will make reference directly, measures of clearance are five, as follows:—

- (1.) Voluntary combination of settlers.
- (2.) Systematic poisoning.
- (3.) Turning out the natural enemy.
- (4.) Hunting with dog, gun, and ferret.
- (5.) Spread of disease.

In brief explanation of the above:—

(1.) Voluntary combination means that the Government should cease the attempt to suppress by drastic measures, and should throw entirely upon the people the onus of suppression. These drastic measures have been tried for ten years in New Zealand, and have failed. If people like to have rabbits, why not let them? If a man under voluntary clearance will not clear his rabbits, let his neighbour sue him for harbouring a nuisance. That, in my opinion, will sooner bring him to his senses than all the Rabbit Inspectors in the world. I find that the bad settler, pursued and harassed by the Rabbit Inspector, always remains bad—perhaps even deteriorates below that standard, and becomes worse. A very different state of things would arise if he saw himself liable to an action for £1,000 damages. To fine such a man £5 or £10 is tilting at a mountain with a reed. Of course, the Government should still keep their Chief Rabbit Inspectors to look after the Crown lands and the boundaries between colonies. In New South Wales, from Bourke up, the efforts of settlers are absolutely paralysed against the pest. They are doing nothing against it except fencing, and that, of course, is not an active remedy. In Tasmania, Mr. Tabart says that the Justice of the Peace Bench will not fine settlers. When the Justices of a country refuse to fine their fellow-settlers there is something wrong with the Act itself.

(2.) Systematic Poisoning: I am indifferent which poison is adopted—phosphorized oats, arsenic, strychnine, bisulphide of carbon—providing it is sharp and effectual, and applied simultaneously by a whole district. Details as to this will be found in my papers in the hands of the Government. The poison remedy is only useful when applied with judgment. I think very little of poison excepting for temporary use. The great suppression will be found not entirely in sweeping off the old rabbit, but in sweeping off the young litters under ground, which poison does not reach. Poisons apply to different localities according to circumstances and temperature.

(3.) Turning out the Natural Enemy: Here we should follow nature: the ferret for the tropics; stoat, polecat, and weasel, for the temperate zones; and ermine, &c., for the polar regions. The ferret will not live in a wild state in the temperate zone, but it will in the tropics. I think it will live upon rabbit-blood in central Australia, so that the want of water there will not matter so much.

(4.) Hunting with Dog, Gun, and Ferret: A rabbitier's outfit should comprise a few dogs, a gun, and a tame ferret, a few nets, and a little pick. I would not object to his dispensing with the gun, but his ferret and nets are his great remedy. The dogs, of course, spread bladder-worm. I understand that from Wilcannia to Hungerford, in New South Wales, very little suppression is being done. The evil has gone beyond the settlers' means of suppression. If settlers will only act together, and pursue the remedies I point out, in addition to their fencing, they need not despair.

(5.) The spread of disease I have already referred to. I think that hawks also carry the tapeworm eggs. I have wondered whether the kangaroo could act as host; but this is very doubtful. It might carry the worm; but I should not think it could be made a distributor. Nature does not act in that way, each host being applicable for its own work.

Measures of avoidance:—

- (1.) Disagreements among settlers.
- (2.) Trapping.
- (3.) The constant use of any one poison, or using poisons at wrong times.
- (4.) Total reliance upon rabbit-proof fencing.
- (5.) Carbon-fumes after one application, arsenical paste, and suchlike.

In explanation of the above, I need only say that people who trap thoroughly deserve having a rabbit-pest. The pity is that they flood their neighbours as well. Trapping should be absolutely prohibited.

As to total reliance upon rabbit-netting, I trust the mistake of this plan will now be admitted. Rabbit-netting affords only a temporary check, a passive resistance, or a base of operation, as the case may be. It is totally useless as an active method of suppression. It makes a capital sheep-fence or for making groins for burying in shingle-rivers. I am sorry to learn from Mr. Brydone that the rabbit is appearing upon both sides of the boasted Canterbury fence, but I fully expected to hear this. In Hawke's Bay the rabbits are appearing upon every run. I have always thought it a weak remedy, and held up my solitary voice against reliance upon it in face of the opinion of all these colonies. So that it must be admitted that I have been consistent. I do not say, Give up the fencing entirely. What I say is, Do not rely upon it. Adopt the other measures of clearance above referred to, which were so successful with us.

I am happy to tell the Conference that Mr. Roberts has thoroughly confirmed my original view upon the vexed question of how to deal with the bad spots left after the rabbits have been conquered. Net them with a couple of chain of ferret-net and then turn in a few ferrets.

Very excellent use can be made of the droughts in Australia. I am not disposed to think that the tapeworm cannot be spread for want of creeks or rivers. My opinion is that it spreads immediately after the first shower, when the grass becomes absolutely deadly in its effect. This is caused by the egg from the host springing into life, and creeping up the young grass, which is then eaten by its proper home-owner. The same reasoning applies to fluke in sheep or lungworm in hoggets, &c.

I have very hastily written this paper, for the reason above-named, but it may serve to touch upon the important points at issue. My paper in the hands of the Government will more fully explain all these matters. Of course, the whole question is the most important one the colonies have to face so far as stock-rearing is concerned.

The ACTING-CHAIRMAN moved a vote of thanks to Mr. Phillips for his paper. There was a considerable amount of information in it. There was one question, however, which he would like to ask Mr. Phillips. It was this: Did he not in 1890 approve of poisoning?

Mr. COLEMAN PHILLIPS said, not as an effectual remedy.

The ACTING-CHAIRMAN asked if he had any reasons for altering his opinion. To southern minds poisoning was an absolute necessity. If it were not for poisoning he did not see how the pest could be grappled with, and if it were suspended for any one year he really thought that country would have to be abandoned. Would Mr. Phillips kindly give the reasons which led him to come to the conclusion that poisoning was not an essential step?

Mr. COLEMAN PHILLIPS replied that he had all along said since 1886 that it was necessary, but not effectual, for this reason: that Otago and Southland had increased the export of rabbitskins from nine millions to twelve millions. They poisoned every year, and yet exported such large numbers of rabbitskins. Therefore he had come to the conclusion stated. He said poisoning was very necessary. After poisoning for three or four years he had given it up, but was taking to it again. He did not think it should be relied upon in the same way as they relied upon it in Otago. He would like the discussion to be deferred until the next day.

The ACTING-CHAIRMAN said, with regard to rabbit-poisoning, the system adopted in the North was somewhat different from that in the South. They found that in the southern country, where they got good sharp frosts, and the ground as a rule was in a native state, there were plenty of bare patches on which to lay the poison without doing great injury to the stock. He had also had experience in the North Island on his property at Akiteo, where he had made a clean sweep of the rabbits in a single year. It was all grass-country, with no spaces of ground to admit of poisoned grain being laid. He had had a man carrying the poisoned grain in a bag, and another turning over small turfs, where the poisoned grain was laid. They knew that rabbits went to newly-turned-up ground, and it added to the efficacy of the grain if it was used in this way. Since then they had been scarcely bothered with the rabbits at all. In March last he rode over the whole place, and did not see a single rabbit, while before that they were in considerable numbers. If any other gentleman could add his experience to his own and that of Mr. Phillips he should be glad to hear him.

Mr. TABART would be glad to give his experience in Tasmania. It was this: They found that the primary defence in the matter of rabbit-destruction was wire-netting; but it was necessary to limit the area. Mr. Downie had wire-netted 2,000 acres of land which was badly infested with rabbits. After he had had his run enclosed he laid poisoned grain in a somewhat similar manner to that described by Mr. Roberts, but instead of turning the sods with a spade he made a furrow with a plough. By this means the work was done more expeditiously, and they got over a greater area of country. Mr. Downie's experience was this: that in eighteen months he paid for the whole of his fencing, and it returned him 200 per cent. on his outlay. Only the week before last he (Mr. Tabart) went over this run with the satisfactory result that there was not a rabbit to be seen. He was perfectly satisfied that to deal with the rabbits effectively it was necessary to make stringent regulations. They must compel every man to do his duty to his neighbour, and that could only be done by instituting prosecutions. That was the experience of Tasmania—that stringent laws were necessary, compelling the use of phosphorized grain during certain months of the year, and to follow that method up by fumigating the burrows and digging them in. Their natural enemies had gone, and he was happy to say they had not introduced stoats and weasels.

The ACTING-CHAIRMAN said their experience with the plough-furrows was that they were not so good or effective as the single sod turned up with a spade. Last winter they had used a furrow, and found that the cross-bred sheep especially picked up the grain; there was no difficulty whatever with the merino sheep. His experience had been that, while there was little or no danger in placing poisoned grain on the small sods, there was considerable danger in spreading it in a furrow. As to the regulations in force in New Zealand, they were extremely stringent; for an Inspector could have a man fined for having a single rabbit on his place. An Inspector had power to start proceedings, and his evidence alone was sufficient for conviction: they could not be more stringent

in this respect. In fact, Inspectors had to use considerable discretion so as not to irritate settlers. They had ample powers, and he did not think they hesitated to exercise them. Many people thought the regulations arbitrary, but he thought the Rabbit Act here was administered with considerable discretion. As to fumigation, they found that bisulphide of carbon was a very good remedy, the burrows being covered up after its use. It would poison everything in the burrows. In his part of the country—in the South—they destroyed the rabbits and exported the skins, which proved a considerable source of revenue. The ordinary price this year was rather low, but an average rabbitskin was worth 2½d. for export to England. Many of the settlers down there were getting two or three rabbits to the acre, and it was marvellous to him how the country could support all the rabbits in addition to the sheep it sustained. But, though fumigation was productive of considerable good, especially in the summer time, when the rabbits were in great numbers, ferreting with large nets had been used with good effect, the nets having a 2½in. mesh. The rabbit banged into the net and remained there. He could give an instance where a little boy and girl, with a ferret and a stick, and with the use of a net, in two hours and a half came back with eighty-five rabbits. The rabbitskins brought from 2d. to 3d. each. They simply turned in the ferrets and watched.

Mr. TABART asked whether the rabbit-factories were not injurious to the country, and also what mode the Inspectors had of dealing with people when they took proceedings under the Rabbit Act. Were the cases brought before stipendiary Magistrates or Justices of the Peace? The difficulty in Tasmania was to obtain a conviction in many districts. He frequently instructed two of his Inspectors to visit the same district, so as to have corroborative evidence; but their testimony was often overbalanced by the blackguard rabbit-trappers, whose word was taken in preference, with the result that there were more dismissals than convictions.

The ACTING-CHAIRMAN said that Mr. Tabart had raised a very debatable point. If he asked Mr. Ritchie, that gentleman would say that the rabbit-factories and the trappers were the curse of the country; but he (Mr. Roberts) did not think they were quite the evil they were said to be. There was no doubt that they were the means of destroying a great number of rabbits which would otherwise not be killed. As long as the rabbits were a good size, they would find their way to the factories, because the rabbiters sometimes got as much as 6½d. a pair unskinned. He was rather inclined to believe that in the majority of cases the fact that the small-sized rabbits were not taken by the factories must conduce to the conserving of the pest. He thought seventy-five thousand rabbits had been sent to one factory. He did not think trapping added to the pest. On the whole, however, it was not an unmixed good. In reference to prosecutions, Justices of the Peace were never called in to deal with rabbit cases. The Inspectors knew too much for that, and generally had the summonses heard before a Resident Magistrate. The statement of the Inspector was final. If he said he saw a rabbit on any one else's land, the Magistrate would have no option but to fine the owner of the property. He (Mr. Roberts) had been fined several times himself, but did not feel very much aggrieved, and he supposed the Inspectors thought it was setting a good example to have a big man fined.

Mr. RITCHIE had supplied the members with copies of his annual report which dealt with this question. The report proved that fencing had been very effective. He believed in poisoning, if properly done. If people paid a little more attention, or paid some one to look after the poisoning, it would be thoroughly effective. Immediately after poisoning it was necessary to follow it up by other means, such as shooting, netting, ferreting, and the destruction of the burrows. Since the rabbit-factories had been started Inspectors had experienced difficulty in getting people to lay poison. Trapping was objectionable, because the rabbits immediately spread when a man began to trap. He had an instance of two neighbours, one of whom put up a rabbit-fence, cleared out the burrows, and filled them in, and there was not a single rabbit to be seen; while on the other side of the fence the rabbits were in hundreds and thousands. The men on the infected side were patiently waiting for the factory to be opened. He stated in his report that the factories did a certain amount of good; but for two or three months before they opened, in nine cases out of ten, people did very little to destroy the pest, because they wished to send the rabbits to the factory. The Stock Committee had carried a motion instructing the department to deal with the pest with the utmost stringency. The factories were all shut now, and he did not think they would be opened until February next. He would like the delegates from Australia, while in New Zealand, to go to Horsley Downs, where Mr. Lance had put up a rabbit-fence, which, he thought, was the specimen-fence of New Zealand. He should be glad to go up with them. The fence consisted of 1½ x ¾ standards, 2½ x 2½ x ½ strainers, 1½ x ¼ intermediates, three No. 4 wires, and barb-wire on top; 1¼ x 42 x 14-gauge netting, with a narrow piece projecting from top of netting on outside, about 9in. wide, attached to small arms from each standard, and a barb wire on outside to prevent stock rubbing against it. The delegates could see the fence in a day from Christchurch. He believed it cost £230 a mile.

Mr. TABART said their fencing in Tasmania cost about £75 per mile.

Mr. RITCHIE said he thought the average was about £120 to £130 a mile in the back country. Mr. Lawry was asked by the Stock Committee to go down last year to Canterbury and report on the fence, and might be able to tell them something about it. When that fence was completed the whole of North Canterbury would be protected. There was some very good fencing in that district, and the only objection to it was the expense.

Mr. BRYDONE said his company had had some very considerable experience with the rabbits. On an average they collected and sold something like half a million skins on their two or three properties. On one alone they got about 250,000 skins, principally from winter poisoning, and in addition to that he thought they killed half as many more whose skins they did not get. Until the discovery was made of destroying rabbits by phosphorized oats they tried all the known remedies—shooting, trapping, netting, digging out the burrows, and all sorts of things; but the rabbits were gradually overcoming them year after year, and the sheep were getting fewer and

poorer. But immediately they got the phosphorized oats, and discovered how to use them properly, they began to keep the pest in check, and he was glad to say they could now hold their own and get probably a little advantage over them. The number of rabbits was getting fewer and fewer, and he did not agree with Mr. Phillips at all in his opinion about the inefficacy of poisoning. Of course there was no doubt that what would suit one description of country might be perfectly useless in another. The country he had referred to was mountainous and bare; they had frosts in the winter: and that description of country appeared to be better for poisoning than any other. They poisoned for three months in the year and trapped the other portion. They had turned out the natural enemy of the rabbit, but with no great effect. On another property near the coast, of a different nature—mostly English-grass land—they thought to overcome the rabbits by turning out the natural enemy, such as stoats and weasels. They went to considerable expense in making experiments, but if they had relied upon that alone they would not have had a sheep upon the station at this moment, possibly. They had to resort to continual poisoning for two or three months in the winter, and trapping and shooting during the rest of the year. They trapped all the year round. They had found the use of dogs in a pack very harassing to the stock, and nothing like so good as ordinary trapping, because in the country he was referring to the rabbits were able to burrow. In the higher parts of Otago much of the country was very rocky, and netting and that sort of thing would not be serviceable at all, or to anything like the extent it would be in smooth country. Of course, if they had rock in one place, sand in another, and scrub in a third, they must adopt different systems. He was not acquainted with Mr. Phillips's country, but in Southland it would not do to give up poisoning and trapping. With regard to the rabbit-factories he had only experience of one. It used to cost his company a good deal of money every year to keep down the rabbits; but since the factory had been regularly at work four or five months in the year the cost had been infinitesimal. In employing men to trap they instructed them not to use dogs. The rabbits had diminished greatly since the factory had been in operation. He only spoke of one place. With regard to wire-netting, he was in a district the other day in South Canterbury where the Government had gone to considerable expense in order to prevent the rabbits from going northward. He believed there were fifty miles of expensive wire-fencing there, and a very good fence it was; he did not think any one could wish for a better. It was attended to by men appointed by the Government to see that when any little gap was made it was mended immediately, and to watch that no one injured the fence so as to allow the rabbits to go through. Each man had got from eight to twelve miles of fencing to look after, so that he could practically see the whole of what was under his charge almost every other day, and could keep it in good order. In consequence there was very little chance of rabbits getting through the fence. But there were a few rabbits there before the fence was put up, and when he was there the other day he saw as many rabbits on one side of the fence as on the other.

(At this stage Sir John Hall, K.C.M.G., entered the chamber, was introduced to the Conference, and took the chair.)

Continuing his remarks, Mr. BRYDONE said, This fence had been erected for something like three or four years, and he was afraid it had not served its purpose. Wire-netting, of course, was a very good thing if you had got cleared ground, and were thoroughly ahead of the rabbits, but if the rabbits were inside he was afraid it was of very little service indeed.

Mr. RITCHIE asked if Mr. Brydone thought it was the fault of the fence. The rabbits could not get over the fence.

Mr. BRYDONE thought not. But he believed some rabbits had been there before the fence was put up. He considered the fence a good one, and it was kept in good order. As to the various suggestions of Mr. Phillips regarding disease, and all that sort of thing, they could not wait on that. There had been no discovery yet to kill off the rabbits by infectious disease, and he was very much afraid that it would be a long time before anything was hit upon likely to serve their purpose.

Mr. COLEMAN PHILLIPS rose to make an explanation. Mr. Brydone had stated that he did not agree with his views on poisoning. He (Mr. Phillips) had not condemned poisoning, he only mentioned it as one of four or five remedies. He used poison himself. He would ask the Conference to remember that they had to consider the interests of Australia, as well as those of the North and South Islands of New Zealand. He had expected Mr. Bruce to give some information on the subject, but he understood that the matter was not now in that gentleman's charge.

Mr. BRUCE said he was not in a good position to say very much, because he had not had much to do with the rabbit-pest since 1884, but he could speak of it a little from hearsay. What New South Wales believed in was fencing. With regard to what had been said about rabbits being inside the fence, he thought the proper thing was to see that they got rid of the few rabbits that remained inside, and afterwards to see that no rabbits got over the fence. They believed thoroughly in fencing the runs, but more especially latterly in fencing off the water. They thought if they got command of the water in a dry country they got command of the rabbits, for they could not do without water, and in dry weather always came to it. They believed thoroughly in poisoning, and had a machine for ploughing and sowing the poisoned grain at the same time. They used phosphorized oats, and also poisoned the natural plants, of which the rabbits were very fond. They poisoned the plants, chaff, oats, and wheat, and had a systematic way of laying the poison. They also poisoned with arsenic-water. They had tanks enclosed and the fencing so arranged that the rabbits could get to the poisoned water in the troughs, and not the sheep. Some went the length of poisoning the water-holes, but that was dangerous to the stock. They had a Rabbit Act, but it was practically a dead-letter. There was a provision in the Act to compel owners of land to destroy the rabbits, but when they made an attempt to enforce the Act they were met with the difficulty which Mr. Tabart had spoken of, for when a man with a hundred thousand sheep was convicted a penalty of £2 was imposed, which was, of course, altogether inadequate. He agreed with Mr. Tabart in his opinion as to the factories. They had had a sad experience in regard to the

bonus system, for they had spent between £800,000 and a million for trapping. A question he would like to ask was, whether New Zealand would give M. Pasteur's representatives a trial of the chicken-cholera. He believed that Dr. Loir, M. Pasteur's nephew, was prepared, from what that gentleman had said to him, to go to any of the colonies to put his remedy to the test. Dr. Loir's view was that he had not altogether received fair-play from the Commission. He wanted another test of the chicken-cholera, and the Commission did not give him an opportunity to try it. He wished to try it in a paddock with the rabbits in a natural condition, not on Rodd Island; but the New South Wales Government would not consent. He (Mr. Bruce) would like to take back a reply as to whether such a test would be given in New Zealand.

The CHAIRMAN suggested that the question was a large one, and perhaps Mr. Ritchie would like to consult the head of his department on the subject before giving an opinion. Perhaps it could be brought forward at a later stage of the Conference. It was not exactly connected with the resolution now before them. It was a very proper thing, no doubt, to go into; but if Mr. Bruce would allow it to stand over till another day he dared to say the New Zealand Government would give him an answer.

Mr. RITCHIE would like to ask Mr. Bruce a question. He presumed that his own Government had refused M. Pasteur's representative the privilege.

Mr. BRUCE said that was so.

Mr. RITCHIE asked if he was to understand that Mr. Bruce was representing his Government in recommending New Zealand to try it.

Mr. BRUCE would like to guard himself against that. He was asked by Dr. Loir to put the question, and he (Mr. Bruce) thought the best way after all was for Dr. Loir to make an official application to the New Zealand Government.

Mr. PARK said he would support the proposal to allow Dr. Loir to try the chicken-cholera on rabbits in this colony. No harm could result from it. He knew that M. Pasteur's representatives thought they had a decided grievance against the colonies for not giving them a trial; and from his own experience of microbes he thought there was no risk whatever. If it was successful they would reap the benefit of it, and if it were a failure it would not cost the colony anything.

Mr. TABART said that in the experiments tried at Rodd Island it was found that chicken-cholera was not communicable to other animals. He (Mr. Tabart) did not say so. He would ask, however, if the disease could only be distributed by broth, how could it be done over a country like this?

Mr. COLEMAN PHILLIPS said that, as we had the chicken-cholera here already in a great many of the hen-coops, he did not see that much harm would result in giving M. Pasteur's representatives a trial—say at Kaikoura. He would say, let the experiment be tried, for personally he did not think any harm could arise from it.

The CHAIRMAN said they could raise the question in a definite form at any time. They had another resolution before them now. Personally he did not see any harm in the proposal. He had read very carefully the reports of the proceedings at Sydney, and it appeared to him that the experiment was a very exhaustive one, and, although M. Pasteur's representatives were not satisfied, he was bound to say that he could not see they had any good reason to be otherwise. If it were desirable to consider the question it could be brought up in a definite manner. In the meantime it would be better to go on with the matter before the Conference.

Motion agreed to.

Consideration of resolutions continued:—

“(3.) That no finality in rabbit-destruction will be obtained without making the erection of rabbit-proof fences compulsory.”

The Conference divided. For: Queensland, 3; Tasmania, 3; total, 6. Against: New South Wales, 3; New Zealand, 3; total, 6. The voting being equal, the Chairman gave his casting-vote with the “Ayes.” Subclause (3) agreed to.

“(4.) That there are very large areas of land so poor that the erection of rabbit-proof fences around individual holdings might cause financial failure. That the department administering the Rabbit Destruction Acts should be empowered to permit the fencing of such poor holdings in groups. That in dealing with land of very poor carrying-capacity the State should show special consideration to the lessees in respect of tenure.”

Amendment proposed: “That the whole of the first sentence be struck out; also the words ‘such poor’ in the second sentence.”

Mr. RITCHIE thought power should be given to the department to group certain areas of small holdings to be enclosed by wire-netting. The farmers within the area would constitute themselves a small Rabbit Board, and would be jointly and individually responsible for any rabbits found within the enclosure.

Amendment agreed to. Subclause as amended agreed to.

“(5.) That in all infested country, but especially in such poor districts, simultaneous operations for the destruction of rabbits should be made compulsory.”

Amendment proposed: “That the words ‘but especially in such poor districts’ be struck out.”

Mr. RITCHIE said that during the last session of the New Zealand Parliament the question of simultaneous poisoning was raised, and since then the Inspectors had been instructed not to compel people to poison. While poisoning was carried out in the high country, in the low country the people preferred to trap and adopt other means. Unless simultaneous poisoning were adopted, their efforts would result practically in failure. He thought that if they affirmed the principle of poisoning it should be done simultaneously.

Amendment agreed to. Subclause as amended agreed to.

“(6.) That netting 42in. wide (3ft. above and 6in. in the ground), with a mesh of 1½in., forms a practically efficient barrier against the incursions of rabbits.”

Amendment proposed, “That ‘mesh of 1½in.’ be substituted for ‘mesh of 1¼in.’”

Mr. BRUCE said a 1½ in. mesh was too large. Some people thought even 1¼ in. was insufficient, and advocated a 1½ in. mesh.

Mr. GORDON supported the amendment. In his colony it was believed the rabbits got through a 1½ in. mesh, and he had understood that was the size used in New Zealand.

Mr. RITCHIE asked if any of the delegates had had any experience in regard to ribbon netting on the fences.

Mr. TABART said that in Tasmania they found that 6 in. in the ground and 3 ft. out of the ground was sufficient to protect them against the rabbits. Landowners a few years ago fenced their holdings with paling-fences. This was a perfect barrier against the pest, but in time the portion that was underground decayed in some cases. This has been remedied by attaching a narrow ribbon of wire-netting to the bottom of the fence, and letting it into the ground. The effect has been good, and sufficient to stop rabbits.

Mr. BRUCE said that in South Australia they put a 6 in. or 8 in. sapling along the top and overlapping the fence, and put the wire round that, the bends in the netting acting as a cap.

Mr. COLEMAN PHILLIPS believed that in some places the rabbits had taken to climbing over the fences—for instance, in Wilcannia. He supposed that had been Mr. Lance's experience. In other places he had heard of the rabbits barking the trees up to 3 ft. Mr. Eddy had said that his Government had fenced ninety miles of the railway-line, and that the rabbits came there to die in millions. He (Mr. Phillips) thought 3 ft. too little.

Mr. ROBERTS said it was commonly understood that a rabbit would not jump, but it was a mistake. He could confidently affirm that he had seen a rabbit jump 2 ft. high. It jumped like a dog.

Mr. RITCHIE said he had a yard for training ferrets to catch rabbits, and had seen a rabbit make a bound to the top of a post.

Amendment agreed to. Subclause as amended agreed to.

“(7.) That the system of compulsory trapping, with professional trappers and State bonuses, is radically bad.”—Agreed to.

“(8.) That legislative measures should be taken compelling landowners or lessees in districts infested by rabbits to join, subject to the above provisions, in payment of the cost of rabbit-proof-netting fences, or of the addition of such netting to existing fences.”—Agreed to.

Proposed: “48. That the Conference, taking into consideration the importance of the subjects that have come before them for discussion and decision, are of opinion that an Australasian Stock Conference should be held triennially at the chief city of one of the colonies, and they respectfully offer this recommendation to the several Governments.”

Amendment proposed: “That the words ‘continue to’ be inserted after the words ‘Australasian Stock Conference should.’”—Amendment agreed to. Clause as amended agreed to.

Proposed: “49. That the Conference desire to call the attention of stockowners to the fact that the cattle-owners in the United States of America hold an annual convention of delegates from all the States in the Union, to discuss matters of general interest to them as a class, with very great benefit; and would suggest that a similar convention of delegates, chosen by the stock-owners in the several colonies, be held annually in one of our chief cities, each colony to send, say, three delegates, as may be agreed upon.”

Mr. BRUCE said this clause had been a dead-letter, and he did not know whether it was any good leaving it in. In America the stockowners met every year to discuss questions affecting them as a class. There, of course, they had railway and other rings to fight against. If the stock-owners in these colonies could only be got together, he believed they would find many subjects to discuss of interest to them. Meetings of the kind had been held in connection with the labour question, and there were many other subjects of importance to the stockowners if they would only meet to discuss them; and he believed that, so far as the agriculturalists and pastoralists of his colony were concerned, they would eventually take them up; but it would be better if an Inter-colonial Conference were held.

The CHAIRMAN said that in New Zealand they had recently had a Conference of delegates from Agricultural and Pastoral Associations for the discussion of questions affecting their interests. It was a very successful gathering, and they had passed some very important resolutions. Recommendations had been made to the Government, and the Government were proposing to take action upon them. They proposed to meet every third year. Of course it would be somewhat difficult for delegates from New Zealand to attend an annual Conference in Australia.

Amendment proposed: “That all the words after the word ‘of’ in the first line be struck out, and the following words be inserted in lieu thereof: ‘the Agricultural and Pastoral Associations of the several colonies to the desirability of Intercolonial Conferences being held periodically in one of the chief cities of each colony, to discuss matters of general interest to agriculturists and stockowners as a class, each colony to send, say, three delegates, as may be agreed upon.’”—Amendment agreed to. Clause as amended agreed to.

Proposed: “50. That a uniform code of regulations, embodying the resolutions passed by this Conference, be adopted by all the colonies, and that the framing of such regulations be placed in the hands of the Victorian Government.”

Amendment proposed: “That all the words after the word ‘colonies’ be struck out.”

Mr. BRUCE said that at the last Conference it was thought that the Victorian Government should have the framing of the regulations, but the proposals submitted did not meet with general approval, and had failed of effect up to the present time. Three of the colonies had agreed to a uniform code, and they had hoped that at this Conference all the colonies would be represented, and then they might agree to some uniform course to be pursued, and that, if any of the colonies did not agree to the same code exactly, the combined colonies would adhere to their regulations, and take care to enforce similarity with regard to the interchange of stock.

Amendment agreed to. Clause as amended agreed to. (See p. 52.)

Proposed: “51. That a copy of the proceedings of this Conference be forwarded to the Government of Western Australia, and that they be asked to adopt and act upon the resolutions agreed to.”

Amendment proposed, "That the words 'Governments of Victoria, South Australia, and' be inserted in lieu of the words 'Government of,' in the second line."—Amendment agreed to. Clause as amended agreed to.

Resolutions as a whole held over for further consideration. (See page 43.)

Mr. BRYDONE gave notice of the following motion for next sitting: "That if, after the next shearing of the flocks in the last-infected districts, on inspection the said flocks be found free from scab, this Conference recommends the different Australasian Governments to remove the restrictions at present in force against the importation of New Zealand sheep, and also from the inter-colonial steamers."

The Conference adjourned till 10 o'clock next day.

THIRD DAY.—THURSDAY, OCTOBER 27, 1892.

Present: Sir John Hall, K.C.M.G. (Chairman), and the full Conference. Mr. W. E. Bidwill was introduced to the Conference, and took his seat as a representative of New Zealand.

The minutes of the previous meeting were read and confirmed.

QUARANTINE ON FOREIGN STOCK.

Mr. TABART desired to bring under the notice of the Conference a matter which had been overlooked when the resolutions concerning the introduction of foreign stock were being dealt with—that was, the introduction of pests. He had referred to it in his paper read on the opening day of the Conference in connection with the gad-fly (*Æstrus bovis*). That pest had been introduced into Tasmania by Devon cattle which had been imported from England; but fortunately the pest had been effectively dealt with in quarantine. He thought some action should be taken to prevent the introduction of such pests into these colonies, more especially as they knew that Miss Ormerod estimated the loss to England from this pest at from £2,000,000 to £7,000,000 sterling: that was from the loss to beef and skin. He thought the exportation from England to the colonies should be restricted to certain months in the year. Possibly there were gentlemen present who were better acquainted with the gad-fly than he was. He would suggest to those having experience in the matter the advisability of naming certain months in the year during which cattle might be imported from England.

Mr. RITCHIE suggested that a good time to discuss the matter would be when the resolutions already passed by the Conference came up for confirmation.

Mr. Ritchie's suggestion was adopted. (See page 43.)

INSPECTION OF STOCK.

Clause 38 of the resolutions passed by the previous Conference, postponed for further consideration, was brought up, as follows:—

"That it is desirable that an efficient and competent staff of Inspectors of Stock be maintained in each colony, to prevent the introduction and to arrest the spread of scab or any other contagious or infectious disease; and that the Governments of Queensland, South Australia, and Western Australia exercise the greatest possible vigilance with respect to their northern ports, to prevent the introduction of diseases from Eastern, Indian, or Chinese ports."

Mr. BRUCE moved, as an amendment, "That the clause be struck out, and the following two clauses be inserted in lieu thereof, viz.:—

"That it is desirable that an efficient and competent staff of Inspectors of Stock be maintained in each colony, to prevent the introduction and to arrest the spread of contagious or infectious diseases in each colony, and to give the other colonies confidence that the stock asked to be introduced are free from infection; and that, where stock come from a colony in which such a staff is not maintained, the colony into which they are proposed to be introduced be entitled to put on such restrictions as it may deem necessary to impose by way of guarantee that such stock are not infected."

"That it is desirable the Governments of Queensland, South Australia, and Western Australia should exercise the greatest possible vigilance with respect to their northern ports, to prevent the introduction of diseases from Eastern, Indian, or Chinese ports."

He had submitted a minute to his Minister on this subject, in which he said that one of the most important matters to which he wished to draw attention was the necessity for agreement between the different colonies as to how to protect stock from infection; and with respect to clause 38, which called for the appointment and maintenance of an efficient and competent staff of Inspectors of Stock in every colony, he said it was "not only in the interest of the colonies employing such a staff, but also in that of the neighbouring colonies; for, if infectious and contagious disease is allowed to obtain a footing among the stock in any of the colonies on the mainland, it is only a question of time when it will spread to them all, unless, indeed, there is a complete stoppage of stock-traffic between the colonies. For these reasons it is most essential that each of the colonies should employ a sufficient staff of competent Inspectors; and it is so especially in the face of the fact that all the colonies are now asking that their stock should be admitted into the other colonies with little or no restrictions. If stock, therefore, are to be admitted in this way it is necessary that the colony which is asked to admit them on the certificate issued in another colony should have full confidence in the statements contained in the certificate; and that it cannot have if, as is now the case in some of the colonies, the staff is so defective as to render it impossible for the officer granting the certificate to examine the stock and say from his own personal knowledge that they are, as he certifies, free from infection." As he had already pointed out, the certificate they required from Victoria and South Australia with stock was merely to the effect that the "Inspector had no reason to doubt the owner's declaration" that the stock was free from disease. Beyond that they did not say, as he said they ought to say, that they had seen the

stock and examined them and found them free from infection. The certificates so far as the statements of the Inspectors went were utterly worthless. When complaint was made the answer was that they had not a sufficient staff to see the stock before they left their colony, and therefore they were obliged to give what certificate they could. He believed Mr. Ritchie got such certificates from Victoria as he (Mr. Bruce) had spoken of. The expense of maintaining a sufficient staff, when compared with the interests involved, was nothing. The expense to his colony was one-fourth of a farthing per head of sheep in the colony—a mere bagatelle when they looked at the value of the insurance. By putting on these restrictions and inviting the colonies to put on a sufficient staff of men they were leading them to protect themselves.

Mr. ROBERTS seconded the amendment.—Agreed to.

STRINGHALT.

Mr. BOAG said he would like to elicit some information about stringhalt, as likely to be of interest to horse-breeders. The disease was getting very prevalent, and it would be wise if they could get an expression of opinion about it, for the sake of those whose business it was to deal in horses.

Mr. PARK said the form of stringhalt known in these colonies was entirely different from that known in England, and he thought it better to remain silent until the disease was further investigated. In Victoria it had been attributed to the plant dandelion, and in New South Wales it was thought that parasites were the principal cause. Until a thorough scientific investigation into the matter had been made he thought it would be better to remain silent.

Mr. BRUCE called attention to the fact that there was a paper on this subject in the printed report of the last Stock Conference.

QUARANTINE OF NEW ZEALAND CATTLE IN TASMANIA.

Mr. RITCHIE asked permission to inquire from Mr. Tabart as to the length of quarantine imposed on New Zealand cattle introduced into the Colony of Tasmania.

Mr. TABART said the period of quarantine was fixed by Act of Parliament. It was reduced two years ago to thirty days, and it was only done on condition that New Zealand should fix the quarantine on Australian stock at ninety days. Previously it had been six months, in consequence of his having drawn the attention of his Government to the fact that he had seen a number of Australian animals which had been sent down to the Canterbury Show. These animals were admitted to the show-grounds, and were afterwards trained from Christchurch to Dunedin. Knowing how prevalent pleuro was in Australia, he had thought it was an unwise course for the New Zealand people to take, seeing that they were free from that disease here; and, when it was mooted to him that New Zealand was likely to introduce cattle into Tasmania, he intimated to his Government the positive facts, and suggested that the quarantine of six months should remain until New Zealand placed some period of quarantine on Australian stock. That was done, and he immediately recommended his Government to reduce the period to thirty days. That was two or three years ago.

Mr. RITCHIE said he thought the cattle from Australia, shown at Christchurch, were quarantined.

Mr. TABART was absolutely certain that they were not quarantined. He was at the Canterbury Show, and saw the animals exhibited there and at the show sale, and also saw the train take those unsold down to Dunedin.

Mr. BOAG recollected some cattle being at the show, and being sold, but did not remember whose they were. He also recollected another shipment entered for the show, but quarantined at Lyttelton, and not allowed to be shown. Gardiner's agent was very much annoyed, and put up flags over the empty pens. These were sold at Matson's, but they were in quarantine.

Mr. ROBERTS said the New Zealand ports were closed to foreign cattle in the same way as those on the other side; and Victorian cattle, and New South Wales cattle as well, were treated in the same way.

Mr. TABART said he was always prepared to adopt any mode of quarantine likely to be beneficial. He did not desire to be obstructive in any way. In meeting New Zealand on this point he would ask to be met in another matter—viz., the quarantine on sheep. It was a very grave matter to Tasmania. They were importing sheep from England, and the importers complained about the long period of quarantine imposed. He would take an opportunity of again asking the Conference to consider the question of quarantine on foreign sheep. There was no possible chance of introducing the scab disease, as the period of incubation was only sixteen to eighteen days, which exceeded the period of incubation for foot-and-mouth disease—of which the people of New Zealand were more afraid than anything else—and was completely covered by the voyage; the disease had, moreover, been stamped out in England. He hoped that they would come to an amicable arrangement by which New Zealand would be able to introduce cattle into Tasmania, and the reduction of the present term of quarantine on foreign sheep coming into the Australasian Colonies.

At Mr. ROBERTS's suggestion the matter was allowed to stand over. (See page 48.)

THE CROSS-BREEDING OF SHEEP.

Mr. ROBERTS then read a paper on "The Cross-breeding of Sheep," as follows:—

The development of the frozen-meat industry during the past few years has made the breeding from long-woolled sheep a greater necessity than it used to be in years prior to the initiation of the export of frozen mutton. Merinos are admittedly unsuitable sheep for export purposes, and, this being so, the question of what is the most desirable cross-bred sheep for purposes alike of wool and mutton is an all-important one to sheep-breeders in the colonies. Most sheep-growers in New Zealand have had somewhat lengthened experience in cross-breeding, and, as I personally have had a fair opportunity of judging of the respective merits of the different crosses, I desire to give a short *résumé* of my own experience, and the conclusions I have come to as to the most suitable cross for use. Our Australian friends who are with us are no doubt considerably interested in the question

to which I purpose to devote this paper, and, although they will, in travelling this country, receive opinions somewhat contradictory to those which I express herein, I give them my own personal experience for what it is worth, and trust that any guidance which I may afford may prove of some little benefit to our fellow-colonists on the other side of the waters.

The following breeds of long-woolled sheep have been chiefly used in this colony for the purposes of cross-breeding: Leicester (English and Border), Lincolns, Romneys, Cotswolds, Southdowns, Hampshire Downs, and Shropshire Downs. I do not purpose going into the question at any length as to the respective merits for freezing purposes of any of these breeds, pure or close up to the pure, but I purpose chiefly to confine my remarks to the question as to which is most suited for producing a prime half-bred sheep bred from the merino ewe.

In arriving at a conclusion as to what is the best and most suitable sheep to use for the somewhat small-carcased merino sheep, we must take into consideration the question as to which of the pure breeds possesses the qualifications necessary for the successful breeding from the smaller female: these qualifications must of necessity consist in the main of small head, small bone, and a good fleece of wool. The Southdowns are perhaps the smallest in frame; the Shropshire Downs are also useful enough sheep to use for the first cross; but both of these Downs, being light-fleeced, produce in the first cross such light-clipping sheep as to make the use of these rams very inadvisable for breeding for export. These two classes of black-faces are very suitable for use for breeding early lambs, and they have been used with considerable success in this direction, by putting them to white-faced long-woolled ewes. In breeding, however, from the merino, the fleece from these sheep is so extremely light and unprofitable as to decide the question against their use for purposes of growing mutton and wool conjointly.

Hampshire Downs are heavier in the fleece than either of the other sheep, and they also have a somewhat less defined type of wool than the white-faced long-wools, and the advantages which they afford are not equal to those which can be secured from other breeds.

The Lincoln, Romney, and Cotswold are, in my opinion, too strong in the head and heavy in the bone to justify their use with merino ewes. Experience points to the inadvisability of using these heavy-carcased sheep for first crosses, as the difficulty of lambing is so great, and the loss arising therefrom very heavy.

Maiden merino ewes ought on no account to be put to long-woolled rams of any kind.

I now come to deal with the Leicester breed, of which there are "English" and the "Border." The English Leicester is in many respects a very excellent sheep, and one which carries a fairly heavy and useful fleece of wool, while it also possesses considerable merit in the shape of being fine in the bone. They, however, lack the perfect butcher's carcase of the Border; and, seeing that carcase is one of the first considerations in cross-breeding, I altogether lean to the Border Leicester as being the best long-woolled sheep to use for crossing with merino ewes. They possess a fine quality of head, fine bone, excellent constitution, the best of carcasses, and a fair weight of good-stapled wool. This class of sheep has been used very much in New Zealand for crossing purposes, and I think it deserves, and fully deserves, the reputation it has secured. The first-cross sheep from this breed is, when properly fed and matured, the best for the frozen-meat trade. If these sheep are well-nourished and well done to when hoggets they can be turned off fat good weights and excellent mutton at about twenty to twenty-two months; if they are not well done to when lambs, they require to be about two and a half years old before they are fit for export. With this cross excessive weights are not at all common, and they can be always reckoned on to come up to the prime standard of weights—say, 55lb. to 70lb. They are ready feeders, and are sheep that can be kept on their feet, not being liable to foot-rot, and they carry a fleece of wool on the average about 2lb. heavier than the merino, and of a quality which has for years past realised higher prices in London than merino grown alongside of it.

Altogether the Leicester cross is, to my mind, the finest sheep for freezing purposes, and I have no hesitation in affirming that our Australian neighbours will find the Border Leicester the most suitable sheep for crossing their merino flocks with. It is a very hardy cross, and we find that it will depasture and thrive on native grasses at high altitudes quite as well as the merino will. They are not, of course, quite as hardy as merinos, but if the country which they are running on is at all fairly grassed they thrive very well. On the ordinary average run of New Zealand tussock country they will do as well as merinos. If any breed beyond the first cross is desired, the heavier-fleeced sheep are desirable, and for breeding three-quarter-breds no doubt can exist about the advisability of using these heavier-fleeced sheep, such as Lincoln, Romney, and Cotswold, as against the Leicester.

For some years a number of sheep-breeders in New Zealand have been experimenting with a view to the production of a sheep as a separate type resembling the first cross. I know of several breeders who for years have been closely following this, and I myself have been interested, and have paid considerable attention to it. If we can only secure as a separate and distinct type a sheep somewhat resembling the first cross between the long-wool and the merino, we will secure something which will be of great advantage not only to this colony, but also to the other colonies. The establishment of a permanent and distinct breed of any new type is of necessity a matter of some importance, and must occupy a very considerable period in its accomplishment.

In dealing with a cross-bred sheep which is the outcome of two such violent extremes as the merino and long-wool, much difficulty, and more than ordinary difficulty, must be experienced, owing to the very extreme component parts of the blend. This must of necessity tend towards frequent throwing-back to the original strain, on one side or the other, and I do not anticipate that the permanent establishment of the half-bred sheep in the colony as a distinct type will be as easily secured as the half-bred sheep which is now bred in the south of Scotland, and which originally came from Cheviot and Leicester. Most of the gentlemen attending this Conference will doubtless have heard that some breeders in the south of Scotland claim to have established a half-bred Cheviot-Leicester sheep as a distinct and separate breed. When in the Home-country last year I had an oppor-

tunity of discussing this somewhat pet subject of mine (cross-breeding) at one of the farmers' clubs in the south of Scotland, and I found that a large bulk of the farmers were of opinion that the inbred half-bred was not the success that the advocates of the breed claim it to be. I found the majority of the farmers of opinion that these sheep did not breed so well as the first cross between Cheviots and Leicesters. They held that lambs bred from first-cross rams are much sappier and better-thriving animals than those from the inbred sheep; indeed, some went the length of saying that they would give 4s. a head more for those got by the first-cross sheep. The advocates for the inbred sheep, on the other hand, were equally strong in affirming that such was not the case, and they contended that the one sheep bred as well as the other. I mention this matter, however, so as to show the differences of opinion which exist in the Home-country regarding the merits of sheep bred in this way.

As the ultimate result of this experiment in breeding is still in the somewhat distant future, it is perhaps unnecessary for me to refer to the matter much further; it still remains to be seen how long it will take to establish the breed as a breed, and, after it is so far established, whether the advantages to be gained by the use of such sheep are equal to the expectations of those who are prosecuting the venture. I have sheep which for four generations have been bred in-and-in, and, although a considerable percentage of the lambs require to be rejected, I find that a fair proportion—perhaps one-fourth—turn out to be sheep very much the type at which I aim. These sheep I got from Mr. Tanner, of Hawke's Bay, and are originally the result of the merino ram and the Lincoln ewe. I am keeping them by themselves, so as to follow the breeding-up and see how it results; but I am also experimenting with the Merino-Leicester cross-bred from stud merino ewes by a Leicester ram. This mode of breeding with the long-woolled ram is, I think, to be preferred to the other. I do not approve breeding from the merino ram, as it is usually found that the progeny partakes of the characteristics of the frame of the sire. The merino ram gets a considerable percentage of his lambs thin in the wither and somewhat flat in the rib, whereas the cross from the long-woolled ram, as a rule, has a good flat wither and well-sprung rib. As regards wool, I find these half-bred sheep maintain their position fairly well, and I think the inbred animal is quite equal in this respect to the first cross. Very heavy culling is necessary in order to free the flock of sheep diverse from the type which is sought to be produced, and I expect for many years that this will be necessary. I hope, however, that in the course of years the desired type will be established, and that a good useful sheep will be produced. The chief advantage to be gained in the production of the cross-bred sheep is to enable sheep-owners continuously to use the one class, and not to be compelled, as at present, to buy in merino ewes in order to keep up the ewe flocks.

The come-back sheep, which is the progeny of the strong long-woolled ewe put to the merino ram, is a very poor feeder, and one which is much disliked by graziers. I have, during the past two years, with a view to avoid breeding back with the merino ram, used first-cross sheep with considerable success, and I find that these, when put to three-quarters or seven-eighths ewes, produce a most excellent, good-thriving, and ready-fattening sheep.

In conclusion, I may say that I regret that I have not had time to make a more exhaustive paper on this subject. I would have liked to have collected a good many facts and figures as to the actual weights of wool-clip, &c., and I regret that the time at my disposal has been such as to prevent my doing this. I trust, however, that the information contained herein, although hurriedly and roughly put together, will be of some little service to the gentlemen attending this Conference.

Sir J. HALL said he was much obliged to Mr. Roberts for the information he had given on this subject. It was just the kind of information they had been looking for. He had used the English Leicester, and was quite satisfied with everything except the size, and probably, as Mr. Roberts had stated, the Border Leicester would give quite as good wool and a better carcase. He got a larger proportion of lambs from the Shropshire Downs than from the Leicesters, and that was a very important point. He would be very glad indeed to have the experience or knowledge of any of those present on the subject.

Mr. BOAG said he had listened with very great attention to Mr. Roberts's paper, and found that it bore out the facts within his own experience. He had been long waiting to arrive at a conclusion as to which was the best and most profitable breed of sheep; but the opinions of the breeders were so varied that he had given up all hope of arriving at a satisfactory conclusion. He thought that the most profitable one was the Border Leicester. He had spent a great deal of time in experimenting, and had once sent Home to a friend and told him how divided they were in this colony between the merits of the Lincoln and the Leicester. His friend wrote back, but he thought his opinion was not worth much. He said that a number of breeders had gone out of Leicesters except himself, but they had all come back to the Leicesters again. They had said they could make more money in comparison with the feed consumed—that was, with regard to the Border Leicester. He (Mr. Boag) was very fond of the English Leicester, but it was a little delicate. He liked the Shropshire Down very well. The Romney was a good sheep, and the Lincoln was a good sheep, but the latter suffered a great deal in rough country. He was pleased to be able to give the opinion of a practical man—Mr. J. Macfarlane—who remarked on one occasion, "You can improve anything by crossing with the Leicester, but no breed will improve the Leicester." The Cotswold grew to an enormous size, and clipped a good deal of wool, but he did not care very much for them, and had settled down to the Leicesters only. The paper was very valuable to flockowners; it was very practical, and contained nothing but facts.

Mr. BRYDONE said his experience in cross-breeding had extended over a quarter of a century in New Zealand, and, as most of them knew, the company with which he was connected had probably about the largest flock of sheep in New Zealand. They had something like three hundred thousand cross-bred sheep in various parts of the South Island. They imported long-wools direct from Home

about thirty years ago—Border Leicesters and Lincolns—and had used these very freely amongst their flocks. They started twenty years ago to put the Border Leicester ram to the merino ewe, and afterwards occasionally used the Lincoln ram to the cross-breds. That, of course, was in the days when wool was the principal consideration. They preferred an infusion of Lincoln blood for the sake of the wool. Now that mutton was of more consequence to people who had country suitable for fattening sheep for export, they found that the greater the quantity of Leicester blood they had in their sheep the more profitable it was. They had endeavoured all along to select Border Leicester rams that carried heavy fleeces, and had improved the fleeces very much since the sheep were first imported; so that their Border Leicesters now, as they existed, were of a very different sheep from what they were thirty years ago. He thought Mr. Boag and Mr. Roberts knew that from their own experience, for they had endeavoured in their stud flocks to improve the fleeces, and knew that these had improved. He found that the hoggets, as Mr. Roberts had stated, bred from Border Leicesters were ready to export before they were two years old, and he considered that the quicker they could turn off their sheep the more profit they could make from their land. It was not profitable to keep wethers until they were four or five years old for the wool alone. They could do very much better by turning them off at from eighteen months to two years old, and thus turning over their capital quicker than they did in the olden time. Of course they could not do this but for the freezing. With regard to other breeds of sheep, in crossing he had had very much the same sort of experience as Mr. Roberts had had. His company had tried several of the Downs, and had a few still, as well as the Romney Marshes. While they were suitable for some purposes, for general profit and according to the average for New Zealand he thought that there was no better sheep than the Border Leicester to use for crossing purposes. The company of which he was the manager were exporting fifty thousand per annum, and had had considerable experience in that direction. He thoroughly indorsed all the statements Mr. Roberts had made in his paper. For the last sixteen years they had been trying to establish a cross-bred New Zealand flock. At the present time, when their ewes got too close up, they used cross-bred rams to bring them back. They tried merino rams for seven or eight years to produce "come-backs," as they were called, and did not find the result profitable, and therefore had practically abandoned it. Now they were studying what they could do with the cross-bred rams they had, so as not to get too close up to the pure-bred long-wool.

Mr. BIDWILL said the paper was a most important one for both Australia and New Zealand. They were all trying experiments in the way of crossing, and no doubt the cross Mr. Roberts recommended, and which Mr. Boag and Mr. Brydone had supported, must be good from what they had said. In the North Island the Border Leicester was only just introduced. Hitherto the cross had been with Lincolns and Romneys. It had been found that the Lincoln was too delicate a sheep to stand the wet, the young sheep dying off in great numbers through lung-worm and other parasites. They had found that with Lincolns the young sheep did not come to maturity, and at the present time the most favourable cross was the Romney, and there was a perfect rush for it. It was a closer- and denser-woolled sheep than that of the South Island. Recently, at the Woodville Farmers' Club, it had been stated by Mr. Nelson that it was the best cross, and the most suitable in that wet, rich country. There was no doubt that the Romney cross matured very quickly. His experience with the Romney last year was that the two-tooth wethers averaged 63lb. frozen weight in March. The Down crosses for freezing purposes and for lambs, as Mr. Roberts had admitted, would be the best, but if kept over the age of lambs it was almost impossible to keep the feet sound in anything like rich country. For crossing purposes very great care would have to be taken as to the nature of the climate and soil before they decided on the adoption of the Border Leicester, Lincoln, or Romney, or in fact any particular variety.

Mr. McNICOL indorsed what Mr. Bidwill had said.

Mr. PHILLIPS asked how they could account for the different breeds of sheep having arisen in the Home-country in such short distances. He took it that this discussion was for the benefit of their Australian friends. They had different breeds in the North and South Islands. They were trying the Border Leicesters and Romney and Lincoln breeds, and he would ask whether it would not be advisable to recommend Australians to try the three crosses rather than one.

Mr. GORDON noticed from the morning paper that Canterbury mutton brought $\frac{1}{4}$ d. a pound more than Wellington mutton. He wished to know whether that was the result of crossing, or of the difference in pasture.

Mr. ROBERTS, in reply, said that, in reference to Sir John Hall's remarks that there was a higher percentage of lambs from Down rams, that was admitted. There was a much higher percentage from Down rams than any other breed that he knew of. Mr. Brydone had touched upon a point on which most Leicester breeders had experienced much difficulty—that was, in getting a sheep decently well clad in wool. In Scotland, sheep were placed for prizes which would not be looked at in the colony. There the carcass was the first consideration, and, naturally, they produced what paid them best. Mr. Bidwill had said that the Leicester was just being introduced into the North Island. He (Mr. Roberts) thought he was the first who introduced it into Hawke's Bay, and the change was forced upon him by the extremely delicate nature of the hoggets produced by the Lincolns. The country seemed to him to be getting sick of Lincoln sheep. For the last two years they had been crossing Lincoln ewes with the Leicester, and found they had produced a sheep much larger, more robust, easier kept, and in every way more desirable than the Lincoln, except that they to a certain extent sacrificed the wool. He had not got their returns this year, but from those he had of last year he found that in the Leicester crosses the wool sheared 1 $\frac{1}{2}$ lb. less than that of the Lincoln; but that was counterbalanced, inasmuch as the cross between the Leicester and the Lincoln was worth at least 1d. or 1 $\frac{1}{2}$ d. a pound more than the Lincoln. To his mind, the most important fact was that they had produced a sheep that thrives on the country. The difference between sheep thriving and the reverse was the difference between sheep-farming successfully and sheep-farming ruinously. The reason why he had selected the Border Leicester in preference to the Romney Marsh was that it was an earlier maturing

sheep, and a kindly feeder. They had found that the Leicester cross could be turned off earlier than the Romney cross. With regard to what Mr. Bidwill had said, he might say his paper was confined to the past. He was prepared to say, so far as the Romneys were concerned, in this (Wellington) province they were a favourite sheep for crossing with long-woolled ewes. Perhaps he had more experience than most men in Wellington. Twenty-two years ago he had put Romney Marsh rams to merino ewes in Otago. They were a light sheep, with fuzzy wool, and not a clear good staple, and their lambs were conspicuous as having very hairy breeches. That was mainly the reason for going out of breeding them, because it very seriously reduced the value of the wool. As to the class of Romney they had in Wellington, he was inclined to say that the Ludlam sheep were not pure. He thought he could safely say that if the present Romney—the fashionable Romney—was the real Romney, then the Wellington Romney was not the pure Romney, because his experience was that the Romney of Ludlam had all the appearance of having some slight touch of merino. He could not tell whether he was right in his supposition, but the old Ludlam sheep was so different from the fashionable Romney that if they had the two in a pen alongside of each other they would not take them for the same breed of sheep. With regard to the Southdowns, they made a good cross, but it was too small. In his endeavours to produce a sheep more robust than the Lincoln he had crossed Lincoln ewes with Southdowns, to see if he could produce a sheep that would thrive on the country. All the black-faced sheep got very good lambs, but a percentage of the lambs did not fatten. He had been amazed at the enormous difference in the fleeces at the first cross; after the first cross of the Southdown and Lincoln it would only shear half the weight of the Lincoln. He could not say much about the Shropshire and Hampshire Downs, but the other was a ruinous cross, and would not pay anybody. They had found that the death-rate among the Lincoln hoggets was something like 12 per cent., but he did not think they had lost 1 per cent. of the Southdown cross; they survived the winter remarkably well. With regard to what Mr. Phillips had said as to the Romney, Leicester, and Lincolns all breeding within a short distance of each other, he supposed they might as well ask why one man bred a Lincoln and another a Romney-Marsh.

Mr. BRYDONE said it was simply because of the change of country.

Mr. ROBERTS said you could grow Lincolns and Romneys on the same property. It became a provincial speciality. If they went to Lincolnshire they would find that they had bred nothing but Lincolns for generations. If they went to the borders of Scotland they would find nothing there but Border Leicesters. There was no doubt that the mutton of the North Island was not equal to the mutton of the South. He did not think that had much to do with the pasture, but it might possibly have a little to do with it. He did not see why they should not produce perfectly good mutton on the pasture they had in the North. He believed the cause was mainly owing to the breed of sheep. The sheep in the North Island were well up to the pure long-wool, and if they were only to go to Hawke's Bay they could tell by the white backs of the slaughtered sheep that they had not such good mutton sheep as they had down South. There were, however, a few with a rich bloom on the back such as the smaller sheep. He did not think it was at all to be wondered at that the North Island mutton did not fetch the same price as that of the South Island. It was not so much due to the pasture as to the sheep. The sheep in the North Island were much closer up to the long-wool than those down South.

Mr. BRYDONE said, as indicating the opinion of breeders, he could state that the Land Company had sold up to date this season 605 Border Leicester rams, 205 Romneys, and only fifty Lincolns. He thought that was a very good indication as to how the feeling of the farmers was going. A few years ago they could not sell the Leicesters; this year and last year it was entirely the opposite way.

Mr. BIDWILL said, with regard to the 1d.-a-pound difference in mutton, he might state that the southern sheep were almost to a sheep fed upon turnips and chaff and oats—at any rate, for six months out of the year.

Mr. ROBERTS: From May to October.

Mr. BIDWILL said that Canterbury and Otago mutton had always shown a difference in price, but he thought that, if they really threshed the matter out, it would be found to be more a trade term than anything else. The Canterbury people were the first to send Home frozen mutton; they were the first in the market, and consequently they got their name up. He thought it would be found, if they went into the matter, that Canterbury mutton would be classed first and Wellington second.

Mr. BRUCE said he was sorry he could not give any experience worth stating in regard to cross-breeding in connection with the colony he came from. Out of their 65,000,000 sheep they had only about a million and a half long-wool and cross-breds altogether. He could not say the character of what they called pure long-wool sheep was very high. One of the objects for which he attended the Conference was to get information on the subject of cross-breeding; and they could not have had more practical and fuller information than they had had from Mr. Roberts's paper. Speaking for his colony, he was very much indebted for the information contained in the paper, and the discussion which had taken place. He moved a vote of thanks to Mr. Roberts for the valuable information contained in his paper.

Mr. GORDON seconded the motion. With regard to the different breeds of sheep in England, he might say they had had in Australia what was called the "battle of the breeds" in connection with cattle, and discussions had taken place as to whether the Hereford, the Shorthorn, the Angus, or other breeds were the best. He thought they could not tell what was the best, as there was so little difference between them. He had to thank Mr. Roberts and the other gentlemen for giving their experience on the subject.

Mr. TABART warmly supported the motion. In Tasmania the paper would be read with great interest by the farmers. One thing had immensely tickled him in connection with this question. He thought when he had left Tasmania that he had left the question of north and south behind him, but it seemed that in this colony the question was also one of north and south.

Sir J. HALL said he might speak for the farmers of New Zealand, and say that the paper would prove of great value, and be exceedingly interesting to them.

Motion agreed to.

Ordered, That the paper, together with the discussion thereon, be printed separately, for general distribution.

REMOVAL OF RESTRICTIONS ON NEW ZEALAND SHEEP.

Mr. BRYDONE moved, "That, in view of the fact that no scab has been found to exist in sheep in New Zealand since the 30th June, 1890, and that during this period a regular and proper system of inspection has been carried on, this Conference recommends the different Australasian Governments to remove the restrictions at present in force against the importation of New Zealand sheep if after next shearing the flocks in the last-infected districts are on inspection found free from scab. The Conference also recommends that in such case the restrictions on intercolonial steamers be removed." The question of removing the embargo on New Zealand sheep had been so thoroughly threshed out the day before that he would not occupy the time of the Conference in speaking to the motion. They had come to an understanding, and he had no doubt it would be passed unanimously. He did not think the people of New Zealand were so anxious to get the embargo off their sheep for the purpose of trade as to get rid of the discredit which attached to the country. His own opinion was that New South Wales and Queensland would derive more benefit from the ports being free than New Zealand would, and that in some degree New-Zealanders would be parting with their patrimony if they sent their long-woolled rams to Australia to breed crossbreds for exportation to go against them in London. But that was a narrow view to take of the question, and they wanted to be neighbourly. There was no doubt that the Australians wanted their rams, as he had had many applications for them. Scab could be eradicated, and with the energetic measures which had been adopted by Mr. Ritchie he would have discovered it during the past two years had it existed, but after doing his best he had failed, and they considered the time had now arrived when they should be relieved of the stigma of being scabby. It was upwards of two years since scabby sheep had held a place in the *Gazette*, and, considering that they had some seventy Inspectors scouring the country, they had every confidence that New Zealand was clean. Mr. Ritchie's good name was at stake, and they might rest assured that he was too cautious a Scotchman to risk that. Mr. Tabart was also a very cautious man, and very jealous for his colony; and the motion had been altered to meet his views by postponing the time to enable the shearing to be completed, and a final inspection made of the district last infected. He had no doubt that Mr. Ritchie would be able to gazette the colony perfectly clean, and that the gentlemen representing the other colonies would have every confidence in recommending to their Governments that the ports be declared free.

Mr. BRUCE seconded the motion. He did not want it to go forth that it was on this bare recommendation, and not after inspection, that the colony was declared clean. He might say that they believed the sheep were now clean because they had not shown any sign of disease for the past two years. It was to be understood that, in view of the fact that the sheep had been regularly inspected for two years and no disease observed, and that a further inspection would be made at the next shearing, the resolution would be confirmed.

Mr. TABART asked if Mr. Ritchie proposed to accept the suggestion with regard to a concentration of the Inspectors in the last-infected districts.

Mr. RITCHIE said he had wired the previous morning to the Inspectors in Marlborough, and extra Inspectors would be sent from Wanganui and Nelson. He would put them all in that district; and all that a man could do he would do.

Motion agreed to.

MORTALITY AMONG YOUNG LAMBS, AND "RED BAG."

Mr. COLEMAN PHILLIPS asked whether the members of the Conference could give any explanation of the cause of the mortality amongst young lambs in the North Island.

Mr. BIDWILL said that Mr. Overton had stated at the Christchurch Conference that he had lost lambs in the same way.

Mr. COLEMAN PHILLIPS said that for the last twelve or thirteen years some of the finest of his young lambs had died. He had asked for information concerning the matter, but could get none. The symptoms were these: The young lambs were pastured in a paddock, and when about six weeks to two months old they simply staggered and died, frothing at the mouth. For some years past they thought that the cause of death was a ball of wool in the stomach. Mr. Park had told him that this was not the cause of death. [Balls of wool taken from the stomachs of lambs were exhibited to members of the Conference.] He (Mr. Phillips) thought that changing the paddocks would cure that. He had been of opinion that when the young lambs had reached the stage of eating for themselves they picked up the wrong kind of grass. He should be very pleased if any of the gentlemen from Australia would state if they had any experience of a similar nature over there. A great many people were anxious to get information about the subject.

The CHAIRMAN asked if the ball of wool had been found in every case in the lamb's stomach.

Mr. COLEMAN PHILLIPS said it had not, but a good many people in the Wairarapa had discovered it. He had not found it so, but it had been discovered by some of his neighbours.

Mr. BOAG had not heard of any unusual mortality in Canterbury.

Mr. RITCHIE said he happened to be at the Conference in Christchurch when Mr. Overton brought forward this matter, and Mr. Phillips and Mr. Matthews had spoken of the same thing. He had since had a conversation with Mr. Overton, who stated that this year he had not suffered any loss from this cause at all. That gentleman accounted for the absence of any unusual mortality by the shifting of the sheep to a different paddock.

Mr. ROBERTS did not know much about this matter. The description of the symptoms was so meagre that it would be difficult to say what the disease was. It might be caused through a

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

being no spare one, we had to take all the sheep out of the vessel and sell them for what they would fetch. After a delay of a couple of weeks we got a new shaft made and started afresh, finally sending her off from Port Chalmers on the 15th of February, 1882, with a cargo of 4,311 sheep and 598 lambs. The average weight was 80lb. for the sheep, and 40½lb. for the lambs, and we realised about 6½d. a pound for the mutton in London, which is a better price than we have ever got since. Very considerable risk was experienced during the voyage, as the air-trunks got choked, and but for the ingenuity and capability of Captain Whitson the cargo would have been lost, and meat-freezing in New Zealand might have been delayed for several years; but he overcame the difficulties, and landed his cargo in first-class order. When the sheep were put on the London market the *Times* had a special article on them, and stated that it was “a prodigious fact;” and no doubt the New Zealand mutton has turned out a prodigious fact to the English farmer. The New Zealand Government of the day gave us £500 as a bonus for the first shipment of meat, which was a very small recognition of the service done to the colony; but we were satisfied with the result which has followed. I may just mention that we chartered the “Dunedin” for ten consecutive voyages; that she always landed her cargo in good order, and died in harness, having been lost on her last voyage three years ago, not a trace of her having ever been discovered. Shortly after this first shipment was made the New Zealand Shipping Company fitted up the barque “Mataura,” loading her in Auckland, but her shipment did not turn out so well as that of the “Dunedin.”

Following closely on these shipments, freezing-works were erected at Dunedin; and steamers fitted up with dry-air machines by various makers came to the colony and carried the meat Home for us. The machines which have been most successful are the Bell-Coleman and the Haslam. The Haslam bought up the Bell-Coleman some time ago, and, although several other makers have their machines in some of the steamers, none of them do better than, and few as well as, that maker.

The Shaw, Savill, and Albion Company and the New Zealand Shipping Company had foresight enough to see that there was a “big thing” in the frozen-mutton business, and at once began to build steamers and fit them up with refrigerating machinery, at first cautiously, only carrying from 10,000 to 20,000 in one bottom, till now they have steamers carrying 50,000 to 70,000 carcasses. Then a new line came into the trade called the “Shire line,” and still another called the “Tyser;” so that we have good competition, and altogether a carrying-capacity of between two and a half and three millions per annum. In direct shipping alone the frozen-meat trade has done immense good to New Zealand. Before the freezing trade started the most of our shipping was done by sailing-vessels, and now the great bulk, with the exception of grain, is done by steamers. We get our wool Home in half the time; and but for the many direct steamers we could not have brought our dairying industry to the successful position which it now occupies. Instead of getting goods that are required in a hurry, such as the latest fashions in soft goods, by way of Melbourne, they now come direct at much less cost; and a lady can get the “latest thing” in hats much cheaper now than before this new era set in; so that the country has to thank the frozen-mutton business for many things besides the benefit it has done the sheep-farmer.

The New Zealand Refrigerating Company's works at Dunedin were the first in operation, but they were closely followed by works at Christchurch, Wellington, Napier, Auckland, Timaru, Oamaru, and Invercargill, and now more recently at various other centres, until there are some eighteen different works in the colony. The business has increased enormously. It only started in 1882 in a small way, but by leaps and bounds we are now exporting two million carcasses of sheep and lambs per annum, with a total stock of about eighteen millions; and I do not see why we should not go on increasing, not in the same proportion, but in a steady manner. Notwithstanding all this export going on, our sheep-stock has increased by a million and three-quarters during the past year, and I am pleased to say that in the South Island we have the biggest lambing that we have ever had, and the prospect for sheep-farmers, so far as increase and wool-clip is concerned, is very good. I wish we could say the same for prices of wool. When freezing was first introduced there was a great diversity of opinion as to the number of sheep which would be available for exportation, and I must say that I for one never anticipated anything like what has resulted; but it only shows what the resources of the colony are. There has been a slight reduction in the numbers exported this last year, but that can be accounted for by the dry seasons we have had. If farmers—in the North Island especially—would only pay more attention to providing proper winter food for their hoggets they would find that they would have many more sheep to shear and export than they have at present.

The trade has had its vicissitudes, like other new industries, and some of our shipments have given very small returns—a friend of mine told me not long ago that a shipment of good merino wethers which he sent Home only netted him 6d. a head on the station; and we have had several instances of good cross-bred wethers only returning 2s. 6d. to 5s., but those are rare occurrences, and on the whole the results have been very satisfactory.

Nelson Brothers, of London and Hawke's Bay, are in the trade more largely than any other firm, and have been severely criticized as trying to establish a monopoly; but some three years ago they offered to enter into contracts to buy sheep at 2d. per pound for the carcase unfrozen, sellers retaining skin and fat, which at once established a value, and many farmers took advantage of the offer, very much to their benefit. Nelson Brothers have now the largest frozen-meat stores in London, and can hold over 300,000 carcasses at a time, and, although they deal in mutton and beef direct on their own account, I consider they have done much good to the frozen-meat trade in New Zealand.

The trade being an entirely new one, much has had to be learnt, and many battles fought as to prices for freezing, railway carriage, charges in London, and particularly freights. With the other costs we had to pay, and with the low prices we were getting at Home, it looked at one time as if the trade was to prove a failure, but by constant pressure we got the shipping companies to reduce their freights by steamers from 2d. per pound and 10 per cent. primage to 1d. per pound and primage,

which is the present freight. The freezing companies have also reduced their costs from $\frac{1}{2}$ d. per pound to $\frac{3}{4}$ d., and even less; and the Home charges and insurance have also been reduced considerably; so that the total cost of killing, freezing, freight, and selling the mutton is now 2d. per pound, as against fully 3d. when the business first started.

With Messrs. Nelson's price of 2d. per pound for the bare carcase unfrozen, a cross-bred wether averaging 60lb. would, with skin and fat, be worth 14s. to 14s. 6d. in April and May; and in October and November, when there is nearly a full fleece, 16s. to 16s. 6d. This last season, however, sheep have been selling at more than that, as in the South Island we have been getting from 17s. 6d. to 18s. 6d. for a 60lb. wether on the station, which suits the farmer much better than taking the risk of shipping on his own account.

The grading of sheep has been rather a vexed question of late. The general idea seems to be that cross-bred sheep (wethers and maiden ewes) weighing from 55lb. to 65lb. should be classed as prime, and that anything above or under those weights should be reckoned as second rate. Nelson Brothers have an elaborate system of grading, having no less than six classes for wethers, which I consider unnecessary and troublesome. My idea is that more attention should be given to the quality of the mutton than to the weight, and, so long as the quality is good, that from 50lb. to 70lb. may be fixed as the limits. We all know that a 50lb. sheep, if fat, is likely to be better quality than a 65lb. one in the same condition. The small Welsh mutton is the most valuable in England. When the trade was first started ten years ago the wethers were mostly three and four years old, averaging 80lb., and were considered first class; but we have been gradually working down the stock until now our wethers are only about a year and a half old, very few being shorn a second time, and the average weight is about 60lb. Heavy sheep are considered unsuitable for the London market, being objected to by the Home consumers.

In the early stages of the trade the shipping companies insisted upon getting guarantees that certain quantities of sheep would be supplied to their steamers, and the freezing companies got the farmers to take up the bulk of the space. Now, however, that system has been abandoned to a great extent, and the steamers have to take their chance. The cause of this alteration, with us in the South Island anyhow, is the fact that most of the sheep are bought by speculators and the shipping companies; the farmer gets his money on the spot, and is saved the risk of the Home market. This last winter the bulk of the sheep sent from the South Island were dealt with in this manner, principally in Christchurch and the Bluff; and remarkably good prices were given, as already stated. Cross-bred wethers weighing from 60lb. to 65lb. were sold for 16s. and 19s. a head in the country. We only hope that this state of things will continue. In the North Island the practice has been rather different from the South, as the refrigerating companies have done most of the buying and exporting on their own account, and, so far, have been fairly successful. The average prices obtained in London since the trade commenced has been calculated for ordinary mutton at $6\frac{1}{2}$ d. a pound in 1883; $5\frac{1}{2}$ d., 1884; 5d., 1885; $4\frac{1}{2}$ d., 1886; 4d., 1887; $4\frac{1}{4}$ d., 1888; $3\frac{3}{4}$ d., 1889; $4\frac{3}{8}$ d., 1890; $4\frac{1}{2}$ d., 1891; and this year it has been about 4d.

The manner of putting the mutton on the London market has been a source of much discussion amongst those interested, and various suggestions have been made from time to time, but no one seems to have sufficient courage to alter the present system of selling through agents. When once a business gets into a groove in London it is very difficult to shift it; and, although the firms may compete against one another at times, and lower prices, I am afraid it would be difficult to avoid that even if we had a special agency of our own, as there would always be outsiders in the market to compete with.

The treatment of the meat from the time it arrives at the London docks till the time it is located in the frozen stores seems to be very defective, and some radical change is necessary at that point. Too much time is lost, and the mutton is exposed to a great deal of risk by the system of disembarking and lightering on the Thames, which should be remedied by our representatives on the other side.

The total value of frozen meat exported for the year ending the 30th June last, according to the Customs returns, was £1,140,577, which is a very creditable amount, and shows what the country can do. In the South Island the bulk of the land suitable for growing English grass and turnips has been cultivated, and, as sheep are all fattened on these, we can hardly expect to increase our output to any great extent unless by reducing grain-growing; but the North Island is in a different position, having large tracts of rich soil covered with bush, which when cleared will carry and fatten sheep well. I should say there is every prospect of New Zealand being able to export 4,000,000 sheep ten years hence as easily as we do 2,000,000 now.

This brings me to the consideration of the future of the frozen-meat trade. At present New Zealand has the command of a section of the trade—that of cross-bred mutton; but as there are districts in Australia which are suitable for the production of similar sheep, and seeing that freezing has again been taken up in Australia, we are likely to have strong opposition ere long, and the prospect from our point of view is not a very pleasant one. At present Australia ships merinos principally, and these compete more with the South American mutton than with ours; but it is better mutton than the South American, and to a certain extent must affect our trade; and, if the Australians take to breeding cross-breds, it is then we shall feel the competition.

The natural pastures fatten sheep in Australia as well as our English grasses, and the consequence is that mutton can be produced at less cost there than here; hence they can afford to undersell us. We have the advantage of possessing a cooler climate, which is better suited for the operations of killing, freezing, &c.; in consequence, we should be able to put our mutton on the market in better condition than that from Australia, and so secure better prices and a readier sale.

Much of Australia has the disadvantage of being a long distance from a seaport, whereas our pastures are all close to the coast, and no distance from a port. Then, again, they have periodical droughts, which will make a break in their trade. Yet, notwithstanding these drawbacks, I am afraid that ere long we shall feel the effect of their exportation, and, with this in view, it will be to

our interest to keep up the standard of our mutton by shipping nothing but what is really first class, and so retain the favour and confidence of the English consumer.

The discovery of freezing has been a providential thing for us here in providing a market for our surplus, and for the masses in England in providing them with cheap food. But for the three millions of sheep that England gets from the Australian Colonies and the Argentine it would have been so dear as to have been beyond the reach of the majority of the working-classes, and there is no doubt about this: that many families now use meat that never saw it before, and there are many still who use little or none that, with a small reduction in the price, would be consumers. It looks quite probable that we may have to submit to a reduction of from $\frac{1}{4}$ d. to $\frac{1}{8}$ d. in the price during the next year or two, but that will increase the consumption, and in the end the supply and demand will regulate each other.

In talking of the future, the question of costs will have to be carefully kept in view by the shippers, and it is not unlikely that further reductions in freight may be demanded, especially as at present we are paying 1d. per pound, against $\frac{1}{8}$ d. charged by the same shipping companies from Australia, the assumption being that if they can carry for the lower rate from Australia they can do so from here.

Altogether there are now some ninety vessels carrying frozen mutton in the world, with a capacity of five and a half million sheep per annum, which indicates that the trade has not been an unprofitable one for the shipowner.

And now just a word about the cross best adapted for exportation. Breeders differ widely in their opinions, and men generally favour the sheep they have been most accustomed to. A good deal also depends upon the nature of the country, as one breed of sheep will thrive well where another would starve. Having had very considerable experience in breeding cross-bred sheep in Canterbury and Otago during the last quarter of a century, and having experimented with most of the popular breeds, the result of our experience has taught us to favour the Border Leicester cross as the most profitable all round. The Border Leicester, as now produced in New Zealand, is a very different sheep from the Home Leicester, as he has been bred with an eye to producing wool as well as mutton, whereas at Home they look principally to the carcase. We put the Border Leicester ram with the merino ewe, which produces a sheep carrying a profitable fleece and that fattens early, and afterwards we use the Leicester, excepting with ewes that may be light in their wool, and to these we put Lincoln rams. The Canterbury farmers who breed for export mostly favour the Leicester blood, although a few still prefer Lincolns and Downs. In the North Island Lincolns and Romneys have been most in favour, and that may account for the difference in price between Canterbury and Wellington mutton.

Sir J. HALL said he thought that the paper they had just heard read was a valuable historical *résumé* of the frozen-meat trade as far as it affected New Zealand, and a very accurate one. He thought, however, that Mr. Brydone hastily took it for granted that the merino must necessarily be always considered at Home as an inferior class of mutton. He (Sir John Hall) ventured to think that the removal of that impression was simply a matter of time. Welsh mutton had at one time been unpopular, but it now brought high prices; and so he thought it would be with merino mutton; when it was better understood it would be considered as good a class of mutton at Home as it was out here. It certainly looked dark in colour; but when one got one's teeth into it it was excellent. Lord Onslow had taken a great deal of trouble to make the qualities of merino mutton known: he had sent Home to official and other circles a number of carcasses, and had published the replies he received on the qualities of the mutton, and one and all had said that it was a very superior mutton indeed. He (Sir John Hall) thought it was only the dark colour which militated against it. With regard to the prospect of the competition of the Australian Colonies and the Argentine in the trade with Great Britain, what Mr. Brydone had said about the Australian Colonies was perfectly true—they might compete with us in half-bred mutton, but he did not think the Argentine would do so. He had travelled there, and had eaten the mutton, and he did not think the mutton grown there would in any way approach the New-Zealand-grown mutton. In the way of artificial grass, he had only seen two tufts of rye-grass during his stay. They grew lucerne to some extent. The natural herbage was very dry, and the mutton was very small and dry. He did not think there would be serious competition on the part of the Argentine, and certainly not in the matter of lambs. There was a great prospect before New Zealand in the export of frozen mutton, and he especially thought the prospects of the lamb trade very good indeed.

Mr. ROBERTS said that Mr. Brydone had stated that more attention ought to be bestowed in the North Island by breeders in the direction of providing proper winter food for hoggets. He quite agreed with that view, but it ought not to be forgotten that a large portion of the North Island was not adapted for growing winter feed. There was a great deal of steep country—country that would no doubt surprise their Australian friends in the other colonies if they were to travel over it—where Lincoln sheep could live. Lincoln sheep could live in some parts of this province and Hawke's Bay; but the difficulty was to find sufficient country without necessitating a large expenditure in the fencing-in of paddocks off which to get hay. Owing to the steepness of the country, and the expenditure required, that was in many cases impossible. He gave this information by way of explanation of Mr. Brydone's statement with regard to providing winter feed. In some instances they could secure winter feed, but in a great many instances they could not. In regard to Mr. Brydone's remarks about the grading of sheep, he might say the system at present in vogue was not altogether so complete as the well-wishers of the frozen-meat industry could desire. The weights of suitable sheep for freezing had been fixed at from 55lb. to 70lb.; but they knew that it was quite possible to get a long-bodied sheep weighing 55lb. which was a very poor specimen of mutton; and they might get a small and really prime sheep under 55lb.: so that it did not follow that 55lb. to 70lb. was a good standard grade. He knew instances where

contracts were made for certain standard weights, and in some cases inferior sheep had been taken simply because they came within the weights. Their Chairman had stated that he did not consider that the Argentine sheep could compare with the quality of New Zealand sheep. Last year he (Mr. Roberts), when going through the cold-meat stores and shops in London, saw that they were now importing from the Argentine an extremely useful style of sheep—sheep not perhaps up to the weights we sent, and shorter in the carcase, but nevertheless an extremely useful sheep; and the best of them compared most favourably with the New Zealand mutton itself. In the Argentine they were increasing their breeding with the long-wools, and in the course of a few years more the mutton from the Argentine would improve very materially. As far as the competition of the Argentine and Australia was concerned, he thought the proper course to take would be that suggested by Mr. Brydone—namely, to still further improve the quality of New Zealand mutton. Our name went a long way, and, if we continued to send good mutton, that would stand us in good stead when the competition became more severe. Mr. Brydone had referred to the freights paid to the shipping companies from this colony. He had said that, if the companies in Australia were shipping meat at $\frac{1}{2}$ d., why could they in New Zealand not get a corresponding advantage by shipping at the same rate? He (Mr. Roberts) thought that the Australian meat companies were under contract to ship a certain number of tons throughout the whole of the year; and they were under an obligation, if they failed to supply the necessary quantity of mutton, to pay for dead freight. He questioned very much if the companies in New Zealand would not rather pay 1d. a pound than take the lesser rate, and be compelled to send Home, summer and winter, a certain number of tons. He understood the contract in Australia was for 700 tons a month, and that the Australian companies had been obliged to pay freight when a less amount was sent. Possibly it might be in the long-run a higher rate than they paid in this colony. He did not say they should not make an effort to get the rates reduced; but he had made these remarks to qualify what Mr. Brydone had stated with regard to the Australian freights— $\frac{1}{2}$ d.—and to show that these were not given on the same terms as in this colony. The paper was concisely and curtly put, and, as the Chairman had stated, was a very good and correct *résumé* of the trade since its initiation. He (Mr. Roberts) had been alongside the enterprise since it was started. He had been continuous chairman of a freezing company since it began, and from the beginning of the trade very many difficulties had had to be dealt with. They could get very little information about freezing and isolation, and had to put the works up at Burnside in the absence of sufficient information from the makers of the refrigerating machine. But, seeing that the company had paid for the machine, and possibly that no return would be made in any circumstances by the maker, they felt inclined simply to risk it, and use the buildings they had put up, which had on the whole served their purpose very well. Seeing that they were groping in the dark as a pioneer company, he thought that the architect had a right to be congratulated on the work done.

Sir J. HALL asked if Mr. Roberts knew when the Haslam patent expired.

Mr. ROBERTS said he did not know. Mr. Brydone had not touched on the freezing-machines in his paper, and if he had done so the paper would have occupied a much longer time. Mr. Brydone and himself had been deputed in England to inquire into the various freezing processes. They had taken a great deal of trouble in ascertaining the respective merits of the different machines. After going fully into the matter they came to the conclusion that it was better to refrain from committing themselves to anything, as they did not quite see their way to say that one machine was better than another. There was no great urgency as far as their works were concerned, and, that being so, they thought the more prudent course to take was not to commit themselves to any new machinery until others had tried it. He thought waiting was better in the long-run, as pioneers in matters of this kind generally had to pay for their pioneering.

Mr. BRUCE (New South Wales) asked what would be the cost for plant and buildings to turn out a thousand sheep a day.

Mr. ROBERTS said it depended very much upon the buildings, situation, and other things. Under ordinary circumstances, roundly speaking, it would cost between £18,000 and £20,000 for machinery and buildings.

Mr. GORDON (Queensland) said they had several companies in Queensland, the shares being held mostly by stockowners. They had works at Brisbane and Townsville. The Brisbane works were capable of turning out a hundred and ten bullocks a day, but the capacity was supposed to be a hundred bullocks. The works had cost a great deal more than Mr. Roberts had estimated. They had had works at Rockhampton for a great many years; there they had tinning-works, and only recently had taken to freezing. The works had been bought by a Melbourne company, and were very extensive. It had been said that they had paid for themselves twice over already. They had also tinning-works at Darling Downs operating on a number of ewes, and also another establishment for boiling down cattle for making the Liebig extract. This year ten thousand bullocks had been consumed, and the average price paid to the owners was £4 a head. As far as Rockhampton was concerned, if a breeder wanted to realise a fair average price for his stock he must not depend upon one consignment. He knew one case where a man had received account sales averaging £8 a head for his stock: that was an exceptional case, for he knew a first consignment that only realised 12s. 6d. a head. He did not think New Zealand need fear very much competition from Queensland in the matter of freezing sheep; so far it had not been a very great success.

Mr. ROBERTS asked if Mr. Gordon had heard of any complaints from London in reference to "bone-stink" in Queensland beef.

Mr. GORDON said he had never heard of any complaint in reference to Queensland beef. He had heard nothing about the matter until about two months ago, when he saw a reference to "bone-stink" in beef from New Zealand.

Mr. BIDWILL said, in reference to frozen meat, he thought Mr. Gordon had hit the point very well where he said shippers should take the average price realised during the whole of the year: no doubt that was the case, especially with beef. He, with others, had been large shippers of beef for years, and they found it essential, in order to get uniform prices, to ship right through the summer

months—in fact, for nine months in the year. If one shipment was made on the chance of getting high prices at Home, very low prices might be the result. It was necessary for a private individual to ship every month in the year in order to secure uniform prices for several years.

Mr. LAWRY agreed that the paper was very valuable if merely as a historical record, and that it would be acceptable throughout the length and breadth of the country on account of the very valuable information it imparted to persons engaged in the export trade. Mr. Brydone had touched on the question of the disposal of the meat in London. Some time ago he (Mr. Lawry) had had a long conversation with Mr. Dilworth, who had just returned from a visit to the Old Country, and while there had made exhaustive inquiries into the method in which imported meat was dealt with in the London market; and that gentleman had told him that his inquiries had satisfied him that a large portion of the Argentine meat was disposed of as New Zealand mutton. He mentioned one particular case where a carcass was branded "New Zealand mutton." He (Mr. Dilworth) went into the shop and asked the butcher if he was satisfied that the meat came from New Zealand. The butcher said he believed it was as represented to him. He told the butcher that he was certain it was not New Zealand mutton, and that a New-Zealander would not give such mutton to the dogs. He then proceeded to trace where the mutton had come from, and ascertained that it had come from the Argentine. He (Mr. Lawry) thought that was a matter which the Conference should take up. They should endeavour, if possible, to secure that New Zealand mutton was sold as New Zealand mutton, and that other meat should not be allowed to be sold under that name, because it would have a detrimental effect if meat of an inferior quality was sold as New Zealand meat. He was sorry that Mr. Brydone had not gone into the question of frozen beef. He realised that that question did not affect the South Island in the same way as it did the North Island. He took it that the North Island was more of a cattle country, although, of course, there were a great number of sheep for export in Wellington and Napier. He thought that the cattle exports must necessarily increase during the next three or four years. He had recently taken a trip up the Turakina River and the adjacent country, and he considered the resources of the country for fattening purposes were illimitable. He was recently talking to a gentleman at Hawera, and had ascertained that the results of exported beef had been in many cases absolutely ruinous. Some of the beef sent Home had not realised more than £4 a carcass. It was stated that when the beef got Home, on account of the texture of the flesh and all the juices escaping, it became practically unsaleable. He did not know what science might not accomplish; science had done much to overcome difficulties, and it might devise means to remedy defects now existing which practically were ruinous to the trade. He was very pleased with one part of the paper, where Mr. Brydone had made it clear that the export of meat had been so beneficial to the colony. He (Mr. Lawry) undertook to say that one of the most important industries of the colony was the dairy industry, and he realised to the fullest extent that had it not been for the success attending the export of meat they could never have had the means to export dairy produce. Whilst it was scarcely possible to overestimate the importance of the export of meat from the colony as a whole, he considered that to the small settlers the dairy industry was still more important—for this reason: that it enabled the settlers to keep their families together. Under the old system there was never any money amongst the small settlers. The exchange of produce was simply carried on by barter. Colonial youth could not be kept at home unless they had a little money from time to time, and in the absence of that in the past they had left their homes and gone elsewhere. Now the small settlers got cheques for their produce, and could give their children a little pocket-money, which would help to keep the families together. He thought that those engaged in the dairy industry owed a debt of gratitude to those who had been instrumental in developing the meat trade (and so providing a regular steam service), which they would never be able to repay. One gentleman—Mr. Bruce—had asked what it would cost to erect a freezing-plant. He (Mr. Lawry) had taken a lively interest in this matter. He had written a great many articles, which had appeared in English papers, and had come to the conclusion that in starting freezing companies the less money they spent the more likely they were to attain success. They had started freezing-works in the North, and had spent £40,000 in reclaiming land, erecting works, &c., and the result had been disastrous. The Wellington Meat Company had started with a hulk, and as the business grew had built other works: they first made their business a success, and then were able to erect a plant out of the profits. Taking it altogether, he was exceedingly pleased with Mr. Brydone's paper. He thought the two papers they had heard read that day from two eminently practical men such as Mr. Brydone and Mr. Roberts would alone have justified the calling-together of the Conference. He would like to return his thanks to those gentlemen, for they had given him a lot of information which he had not before possessed.

Mr. BRUCE said that New South Wales was altogether behindhand in exporting frozen meat, but he hoped they would do better in future. Both colonies were under a debt of gratitude to the late Mr. T. S. Mort, an able man whose motto was that there should be no more waste. That gentleman had not lived to see the success of his proposals. If he had had such practical men as Mr. Brydone and Mr. Roberts to help him he would perhaps have succeeded better than he did. With regard to freezing-works, he might say they had only two in operation in New South Wales—one at Darling Harbour, where they could freeze two thousand sheep a day, and the other at Aberdeen, under the management of Nelson Brothers, the "Australian Chilling and Freezing Company;" and there was good work being done at both places, and a large number of sheep were going through. They had a difficulty which New Zealand had not experienced—viz., the fattening-country was a considerable distance from the seaport. They believed that they required to establish killing- and chilling-works perhaps four or five hundred miles away, and bring the carcasses down to be frozen at the seaport. Nelson Brothers were doing what it had been considered could not be done. They were now freezing some eighty miles from the seaport at Newcastle, and it was said they were going a hundred miles further away, to establish other works. They had two killing- and chilling-places—one at Narrandera, four hundred miles from Sydney, and

another at Tenterfield. What was killed there was sold in the local market. They expected to ship frozen meat largely from Sydney, and it was proposed to erect in the one building a freezing plant attached to the market at Darling Harbour. There would then be the market and a chilling-room on one floor, and under that a freezing-chamber. With regard to the distribution of the meat at Home, he had an idea that something might be done on a similar plan to that carried out in Sydney in the distribution of milk. An arrangement was made there by the milk distributing companies with the dairymen to supply milk for six months at a certain price. That was sent down by rail, and the Sydney companies had a large number of horses and carts to distribute the milk to the people in the city. On the same principle it had occurred to him that in connection with the different freezing-works in New Zealand, New South Wales, and Queensland it would be quite possible to supply large distributing companies in the cities in England with frozen mutton for six months during the year under contract at certain prices; and he thought it would be an easy thing for these companies with cold-stores in the large cities to work on the same principle as was at present done with the distribution of milk in Sydney. By this means the producer and consumer would be brought much nearer to each other than they were now, and the middlemen would be got rid of.

Mr. BRYDONE did not think there was very much to reply to. With regard to what Sir John Hall had said, he (Mr. Brydone) had not depreciated merino mutton in any sense, and he would not do so, because for his own eating he preferred it to any other. He thought that the comparatively low estimate in which it was held was due to the condition in which it arrived in London, or the condition it showed when exposed for sale. He thought that hurt it on the London market, because it looked very dark as compared with the cross-bred. A fat sheep always showed best after thawing out; medium sheep were darker—being fleshy, the blood showed out darker. Fat being denser matter, the blood did not show. That was the explanation of the matter. He thought it was the appearance of the sheep, not the eating of it at all. Regarding what had been said as to not fearing the competition of South America, he supposed they were aware that the South Americans, like those in New South Wales, were going in for cross-breeding extensively. They were importing large numbers of long-woolled sheep from England, with the intention of trying to breed a sheep more suitable for the London market than the merino had proved to be. Judging from some of the sheep he had seen at Home in company with Mr. Roberts, there was no doubt that the South Americans were shipping Home some very good mutton. Mr. Roberts had referred to winter feeding in the North Island: that was a question they had to look at in the South, and it was thought there that probably the North Island might be able to do the same as they did in the South. He had no doubt that circumstances altered cases, and they might not have the same opportunities as southern breeders in the growing of turnips; and probably they in the South might judge them hardly, and think those in the North were a little lazy in not exerting themselves sufficiently in the production of winter feed. In reference to the freights, he thought the shippers would have to try to get them made a little easier still. They must not rest on their oars, but keep at the shipping companies in order to get the freights as low as possible. Of course they could not expect the companies to work without getting a reasonable profit, but, all the same, he believed from what he had heard that steamers that went to Australian ports had to wait a considerable time for a cargo, and take it under difficulties which they had not to encounter in New Zealand. There was one steamer over there at the present time which had been away, he thought, six weeks—namely, the “Ruahine”—and which was not here yet. He believed she had had to wait a considerable number of days at some of the Queensland ports to get a cargo. He fancied that if the shipping companies could do the Australian trade for $\frac{1}{3}$ d. they could do it in New Zealand on the same terms. That was a matter to be fought out in the future between the shippers and the shipping companies. He did not care about giving an opinion as to the merits of any particular freezing machinery, because every one of the makers considered his the best, and probably it would be out of place for him, not being a mechanic, to say which machine he considered the best. His company knew which was the best machine for them, and if they were called upon to replace their present machinery they would go back to the old maker. Mr. Gordon had said that New Zealand need not fear Queensland competition in the mutton-market. He might say he was pleased to hear that. Mr. Lawry had referred to the sale of Argentine mutton as New Zealand mutton. He (Mr. Brydone) thought it would be difficult to rid the world of rogues; they were to be found everywhere. If they were to have inspection and supervision in London the same thing would no doubt go on. He had no doubt that something would be done to put matters on a better footing than they were at present. With regard to frozen beef, he had not referred to it, because there were gentlemen present who had had better experience than they had had in New Zealand, and he had left it to them to take the matter up and give the Conference whatever information they might be in possession of.

Mr. BOAG wished to contribute his quota of admiration to that already expressed with reference to the paper they had heard read. It had afforded him very much pleasure. He thought every one present would get great benefit from the ideas of a gentleman who had had such long experience and practical knowledge of the business as Mr. Brydone. It was quite evident that he and his employers were the first to introduce the exportation of frozen mutton; and without a beginning there could be no end. It had now become a great industry, which had been a boon to the country. He had very much pleasure in moving a vote of thanks to Mr. Brydone for the trouble he had taken in the preparation of his paper.

Mr. TABART (Tasmania) seconded the motion. He had been rather astounded by the figures which had been produced. He had had no conception that the frozen-meat industry in New Zealand had assumed such vast dimensions. In Tasmania they were in the unfortunate position that they could not feed themselves, and he therefore did not think they were likely to enter into competition with New Zealand.

Mr. GORDON thought the paper very valuable for many reasons, giving as it did a short and concise history of the frozen-meat industry.

Mr. BRUCE added his thanks to Mr. Brydone for his paper, and thought it was needless to say anything as to its importance and value. The paper spoke for itself. The frozen-meat trade had saved New Zealand from very great difficulties, and they in New South Wales hoped that it would benefit their colony in the same way.

Motion agreed to.

Mr. BRYDONE expressed pleasure at the manner in which his paper had been received. It had been rather hurriedly put together, and he regretted not having been able to devote more time to its preparation. He need not say that anything he had done to further the frozen-meat and dairy industries had been done for the benefit of the colony as a whole, and not only for that of the company he represented, and it was very pleasing to know that those industries were turning out so successfully.

Ordered, That the papers, and report of discussion thereon, be printed separately for general distribution.

RESOLUTIONS ADOPTED BY THE CONFERENCE.

The resolutions previously discussed were brought up for confirmation.

Resolutions 1 to 8, as passed, were confirmed.

Introduction of Foreign Animals.

Clause 9 and 10, with subclauses, as amended, confirmed.

Clause 11, subclauses (1) to (3), confirmed.

Subclause (4): "That notice be given to the owner when any stock are ailing, or about to be destroyed."

Mr. BRUCE raised the question whether it would not be better to exclude veterinary surgeons who might be called in by the owner, and throw the responsibility of treating stock upon the Government Veterinary Surgeon.

Mr. BOAG said a man might have a valuable animal ailing, which he would like to see himself, and get independent advice. He saw no reason for altering the clause.

Mr. RITCHIE said he had an objection to an outside veterinary surgeon coming in and taking charge. As stock in quarantine were under the charge of the Government, it was their duty to get the best advice they could. He had no objection to an owner being advised when his stock were ailing, but would object to any interference with departmental treatment. It was better to leave such matters to the Government.

Mr. PARK agreed with Mr. Ritchie, but thought an owner should have power to send a veterinary surgeon to consult with the Government Veterinary Surgeon.

Mr. TABART said that, the stock having been quarantined, the owner should have notice if it were ailing; but the Government Veterinary Surgeon only should have the right of looking after it. It was the duty of the Government to have a competent veterinary surgeon, who should look after such stock, and no other.

The CHAIRMAN said that the clause only prescribed that the owner should have notice if the stock were ailing.

Subclause passed as printed.

Subclauses (5) and (6), as amended, were confirmed.

Subclause (7): "That cattle, sheep, and pigs exported to Australasia be shipped from the ports of London or Glasgow."

Mr. TABART quoted his remarks contained in his paper on "The Periods of Quarantine upon Stock" (see page 9) in reference to the introduction of warbles into Tasmania by Devon cattle, and said these facts had come under his immediate attention, and he thought it was a matter which should be taken up by the Conference. Mr. Roberts would tell them that he was a passenger on board the same vessel which had brought these cattle out to Tasmania, and that when they arrived at Hobart they appeared to be perfectly healthy. After their arrival in December they developed warbles. He thought it would be a very serious matter to introduce such a pest as that into either New Zealand or Australia. He hoped the Conference would take the same view of the matter as he did, and would restrict the importation of animals from England to the months of April, May, and June. He would move the following addition to clause 7: "That the exportation of cattle from the United Kingdom be restricted to the months of April, May, and June."

Mr. ROBERTS seconded. He could bear out what Mr. Tabart had stated in his paper with regard to the Devon cattle which came out in the "Coptic," for to his personal knowledge they were as healthy-looking a lot of cattle as he had ever seen, and he had been very much surprised to learn, when Mr. Tabart read his paper, that they had developed any kind of disease. He thought Mr. Tabart deserved the thanks of the Conference for bringing the matter forward and seeking to get regulations framed to prevent the introduction of this and similar pests.

Mr. McCLEAN said that before they finally decided to restrict the cattle to April, May, and June he would like to mention that it was not clearly defined how long the cattle were absolutely free from the gad-fly. He had looked up Neumann, which he thought was one of the latest authorities, and he gave the period that elapsed before the appearance of the fully-developed fly as about six weeks. Before coming to a conclusion it would be as well to make sure that they would derive some benefit in restricting the importation of cattle. As the period appeared to be uncertain, he did not think it was wise to impose these restrictions until they got some authoritative information.

Mr. RITCHIE said, on referring to "Steel on Oxen," he found that the time the gad-fly appeared was the end of summer. The abscess burst about June or July, and, if they shipped in May, June, or July, then the abscess might burst immediately the cattle were aboard the ship, and the insect burrow itself about the fittings of the ship and lie there during the passage of six weeks. It would be undesirable to find that, after passing such a motion as that proposed, they were wrong.

Mr. PARK said he had frequently seen them in March when the cattle had been housed. He had seen cattle covered over with warbles, and squeezed them out fully matured. As Mr. Ritchie had suggested, they might get on board the ship, and thence overboard.

Mr. RITCHIE said they burst in June or July. That being so, they might drop about the ship, and be ready to fly away when they reached the New Zealand shores.

Mr. McCLEAN said it appeared to him that when the cattle arrived they would be able to have a good idea as to whether they had warbles or not.

Mr. BRUCE was rather inclined to agree with Mr. Ritchie in doubting whether they were in a position to fix any particular period. They might refer the matter Home to the best authorities, explaining what risk they ran, and asking what was the best course to take to avoid it.

Mr. RITCHIE thought the best way would be to ask the different Governments to make inquiries in reference to warbles, and as to the best months to ship cattle, and then to frame regulations on that basis. He was afraid that without further information they might be taking the worst months possible.

Mr. McCLEAN did not think any benefit was likely to arise from taking that course, as all the information obtainable was already in the colony. They had the views of Miss Ormerod and Neumann, and he thought they might accept what had been said as fairly correct.

Mr. BRUCE proposed that this pest should be added to the list of diseases. The pest might come out any day. It might be necessary to retain the cattle a longer time in quarantine, but if they kept the pest among the list of diseases they could deal with it at any time.

Mr. TABART moved, "That this Conference respectfully recommends the various Australasian Governments to make inquiries through their Agents-General as to the most suitable months in the year in which to ship cattle from the United Kingdom to the colonies, so as to prevent the introduction of so serious a pest as the gad-fly (*Estrus bovis*)."

Mr. RITCHIE seconded the motion.—Agreed to.

Subclause (7), as amended, confirmed.

Subclause (8): "That the Agents-General for the several colonies be asked to appoint one (*i.e.*, the same) qualified veterinary surgeon at each port of shipment, to examine all stock intended to be exported to any of the colonies; such veterinary surgeon to give a certificate of health to accompany the animals."

Subclause (8), as amended, confirmed.

Subclause (9) passed as printed.

Subclause (10), as amended, confirmed.

Subclause (11), as amended, confirmed.

Subclause (12) struck out, and substitution of new clause confirmed.

Subclauses (13) to (17) passed as printed.

Subclause (18).

Mr. TABART moved, "That the word 'sheep' in paragraph (b) be omitted," with the view of further reducing the period of quarantine for sheep to thirty days. In doing this he was studying the interests of the importers. The period of incubation for diseases in sheep was fully covered by the fifty days' voyage and thirty days' quarantine. The longest period of incubation for any disease was that of scab, which, as he had shown in his paper, was from sixteen to eighteen days, and as a provision against this the sheep were dipped twice or three times at the discretion of the Inspector. He hoped the colony would support him in this amendment, as the hardship his colony suffered from—the long quarantine of sixty days when sheep were imported—was very great. Their business with the stockowners of Australia was a large one, and brought them in from £50,000 to £80,000 a year. Tasmanian stockowners would not recommend a quarantine such as he had proposed if they saw there was the slightest chance of their interests being injured.

Mr. ROBERTS seconded the amendment.

Mr. BRUCE said that mistakes had been made, and might be made again. They wanted to be satisfied that sheep were not affected with scab or any other disease before they left quarantine. So far as he understood the feeling of the stockowners of his colony they were content with a quarantine of sixty days. The time of quarantine was of little moment compared with the risk. The more they reduced the cost of importing stock the more chance they ran of getting inferior stock. He was in favour of allowing the clause to stand as it was.

Mr. TABART asked if Mr. Bruce feared scab with a fifty days' voyage and a thirty days' quarantine. If an Inspector was not qualified to deal with scab in thirty days he was not fit to hold his position. If sheep were dipped under the supervision of a man who knew his duty he maintained that there was not the slightest chance of introducing scab. He (Mr. Tabart) had had a lifelong experience of scab, and he was not afraid of allowing sheep to be introduced with a thirty days' quarantine; neither were the stockowners of his colony. They had dealt with scab for seven years. The Tasmanian Scab Act came into force in 1870, and in 1878 scab was a thing of the past. This was the result of the employment of an efficient staff of Inspectors, who carried out the law irrespective of persons. They had never had it reintroduced, and had never had an outbreak after the proclamation of cleanness had been issued.

Mr. GORDON said if Mr. Tabart had dealt with this matter the previous day he would have favoured the proposal, but he did not think the matter should be reopened. Some of the stockowners of Queensland had said they would like the period reduced, but the Conference had debated the question, and he thought the resolution should stand.

Mr. TABART said that his paper was the first introduced to be read, but Mr. Bruce had moved that the resolution be dealt with prior to the reading of the paper.

The Conference divided on the question, "That the clause stand as originally amended." Ayes, 6: New Zealand, 3; New South Wales, 3. Noes, 6: Tasmania, 3; Queensland, 3. The voting being equal, the Chairman gave his casting vote with the "Ayes."

Subclause (19) passed as printed.

Subclause (20) passed as printed.

Clause 12, deletion confirmed.

Clause 13 passed as printed.

Clause 14, as amended, confirmed.

Clause 15 passed as printed.

Clause 16, as amended, confirmed.

Clause 17: "That if the Inspector is doubtful as to the freedom of any stock from infection he may temporarily detain them on board ship, or in some convenient place, at the owners' expense, where they may be dressed or disinfected as the Inspector directs."

Mr. TABART suggested that the words "or in some convenient place" be struck out, as that meant a private quarantine.

Mr. GORDON said that would affect vessels coming down the coast which might call, say, at Rockhampton, and only stay twelve hours. They must have some place to land such stock or keep them under observation.

Mr. TABART said the Conference had affirmed the principle that private quarantine was bad, and the clause suggested private quarantine.

Mr. BRUCE said the clause was passed, he believed, to give an Inspector time to inspect doubtful stock, and with a view, perhaps, of getting assistance to examine them. It was only a brief isolation, because if an animal were in a condition to go to quarantine it would go at once. If there was a place for such animals it would be right to send them there.

Mr. RITCHIE said that in the case of a boat, say, belonging to the Union Steamship Company, coming in the morning with doubtful stock on board, and going out in the afternoon, there would be no chance of inspection. He would be inclined to support the use of a hulk for such a purpose. He would move, as an amendment, "That the words 'at the port of arrival' be inserted after the word 'Inspector' in the first line, and that the words 'or remove them to some other vessel for a period not exceeding forty-eight hours' be substituted for the words 'or in some convenient place.'"

Mr. BRUCE seconded the amendment, which was agreed to. Clause as amended agreed to.

Mr. McNICOL moved the addition of the following new clause: "That all stock during the period of quarantine be under the surveillance of a qualified veterinary surgeon."

Mr. McCLEAN seconded.

The Conference divided. Ayes, 9: New Zealand, 3; Tasmania, 3; New South Wales, 3. Noes, 3—Queensland.

New clause agreed to.

Interchange of Australasian Animals.

Clause 18 was passed as printed.

Clause 19: "That no sheep shall be imported by vessels that have traded to any but a clean Australasian Colony within the next preceding three months, nor by any vessel which shall within that period have had any sheep on board from any colony or country other than a clean Australasian colony; and the captain of the vessel shall, when required, make a declaration to that effect."

Mr. BRUCE said that in the New South Wales regulations it was set out that sheep coming without having complete papers, or which had been put on board an unclean vessel, might be accepted on being quarantined and dipped. The question now arose whether they should declare sheep which had been put on board an unclean vessel practically foreign—that was, to undergo sixty days' quarantine or be killed. A case occurred not long ago where sheep from Victoria which arrived by an unclean vessel had to undergo two dippings and fourteen days' quarantine.

Mr. RITCHIE said this clause might affect New Zealand when the colony was declared clean. He understood, however, that the delegates had given a sort of undertaking that the removal of the embargo would apply to the ship as well as to the sheep. But the clause would apply to Western Australia.

Mr. TABART said Tasmania did not admit sheep carried by vessels trading to an unclean port. A case occurred some three years ago where a vessel trading with the northern ports of New Zealand picked up a cargo of sheep in Victoria and ran into one of the coastal ports of Tasmania, and, in opposition to the Inspector, landed the sheep—some 760 cross-breeds. He (Mr. Tabart) at once took possession of them, had them killed and their skins burned. That was the way this cargo was dealt with, showing conclusively that the colony intended to prevent any possible risk of introducing disease.

Mr. BRUCE said this question affected South Australia and Western Australia. The latter colony was being stocked by steamers trading to Port Darwin. Stock were landed there and taken on to Western Australia.

The clause as amended confirmed.

Clause 20 passed as printed. (See page 55.)

Clause 21: "That if the Inspector be doubtful as to the freedom of any stock from infection, he may temporarily detain them on board ship or in some convenient place at the owners' expense, and they may be dressed or disinfected as the Inspector may direct."

Amendment proposed, "That the words 'at the port of arrival' be inserted after the word 'Inspector' in the first line, and that the words 'or remove them to some other vessel for a period not exceeding forty-eight hours' be substituted for the words 'or in some convenient place.'"—Agreed to. Clause as amended agreed to.

Clauses 22, 23, and 24 were passed as printed.

Clause 25: "That sheep imported into any colony, and certified by an Inspector of that colony as free from infection, may be introduced into any other colony if found to be so by the Inspector of the colony into which the sheep are being imported."

Amendment proposed, "That the word 'so' in the second line be struck out, and the words

'free from infection' be substituted in lieu thereof, and the word 'latter' inserted before the word 'colony' in the last line."—Agreed to. Clause as amended agreed to.

Clause 26 was amended to read as follows: "That Australasian horses and dogs, accompanied by a declaration by the owner and a certificate from the Inspector or veterinary surgeon at the port of shipment, be allowed to land on the permit of a Customs officer; but, in the event of any colony or colonies not carrying out the regulation requiring foreign dogs to be quarantined in Government quarantine grounds only, all dogs arriving either by sea or land from any such colony or colonies shall be deemed foreign stock."

Clause 27 was passed as printed.

At this stage it was decided to discuss Mr. Coleman Phillips's paper on "Successful Rabbit-suppression," read at the previous sitting. (Continued from page 22.)

Mr. RITCHIE said he had had several conversations with Mr. Phillips with regard to the means taken to destroy the rabbits, and he might say that he agreed with him in the main. If they could get neighbours to combine to put down the pest it would be a very good thing, but that was difficult, especially with farmers, who were the worst people in the world to combine in matters of this kind. He did not agree in spreading disease among the rabbits. It was a serious risk, and might run the colony into great loss.

Mr. LAWRY said he had had the pleasure of listening to Mr. Phillips's expositions of the rabbit-question on many occasions. As some delegates were aware, he had given evidence in an exhaustive manner before the Stock Committee. Like Mr. Ritchie, he (Mr. Lawry) agreed a great deal with what Mr. Phillips had advanced, but would only speak on one of the remedies—the rabbit-netting. Before last year he knew nothing at all about it, but he had been appointed to go to Canterbury to inspect the fencing and to see whether the expense was justified by the result. His opinion was that had the fence not been erected on the Clarence and the Waiau Rivers the whole of North Canterbury would have been infested. The rabbit-fence near the Clarence River was acting as a great check, and the circumstances were most favourable—for this reason: that they had the river as a first check, and the fence was erected 4 or 5 chains from the river all the way up. This enabled men to traverse up and down the fence every day, killing every rabbit they saw. On the north side of the river the rabbits were to be seen in thousands, but between the fence and the river they did not see the sign of a rabbit. He believed that the rabbit-fence had accomplished its purpose. Of course the men travelling up and down the fence saw rabbits frequently on the line of fence, but they scoured the country and killed each one they saw. So far as the natural enemy—the ferret—was concerned, they did effective work, and he had had opportunities of seeing what the little animals could do. A few days ago he had had a conversation with a gentleman who said the ferrets had driven out the rabbits from Kaikoura: where previously they had existed in thousands, they could not now be seen. He said it was necessary to train the ferrets before they were turned out. He turned them out into a small yard, and trained them to kill rabbits, for four or five weeks. If the ferrets were turned out without training they did not know how to get a living, and very soon died of starvation.

Sir J. HALL said that had not been his experience.

Mr. LAWRY said that his experience of the rabbit-fence was that it effected a great purpose, and more especially was this the case when there was a river as the first defence. He did not see a single rabbit on the properties of Mr. Rutherford and others south of the fence, but there were thousands on the Serpentine side.

Mr. ROBERTS said that Mr. Phillips put among his measures of avoidance the constant use of any one poison. That was contrary to the experience they had had in the South, where they had so much to do with rabbits. They had used phosphorus for years, and nothing but phosphorus, and it had been found very efficacious. In the light of his experience, poisoning was perfectly good, and continued to be efficacious for years. Some years it was not as good or effectual as others, but this was more to be accounted for by the seasons and the quality of the poison used. With regard to Mr. Lawry's remarks about the fencing in Canterbury, he did not think Canterbury could coddle itself up with the idea that it had no rabbits inside. They had enough to stock the country, and unless they adopted measures to suppress their numbers it was only a matter of a few years when there would be as many on one side of the fence as on the other. It had been stated that there were as many rabbits on one side of the Waitaki fence as on the other.

Mr. BIDWILL said that bisulphide of carbon was being used in the Wairarapa. Twelve or fifteen years ago the rabbits had made a raid on the Wairarapa, and increased to a large extent, and it was only within the last three or four years that they had been suppressed. His idea was that if you cleared away the cover as much as possible you would be able to get rid of them. Phosphorized oats would undoubtedly clear a number of them off, but there were always a great number left. In many instances they would not take the poison. He knew of hundreds of instances where sheep had been killed by the phosphorized grain. A few years ago they used bisulphide of carbon, and since that had had no trouble with the rabbit-pest. A man went round and saw where the rabbits went in, and stopped up the holes. Years ago people would have made it a penal offence to use bisulphide of carbon, but now they used it themselves. He had been up to a property where the rabbits were as thick as they could be five years ago, and the manager would not think of using bisulphide of carbon. But two years ago he (Mr. Bidwill) had induced him to try it, and the manager now admitted that it was a great success. He had ridden over the property, which contained some 2,000 acres, and had swarmed with rabbits. Wire-netting had been used, and it was of great benefit; but the land was not very broken. On another property they were employing sixty men in using the bisulphide of carbon, and he was sure it was doing splendid work. No doubt it destroyed a large number of the natural enemy, but when they took into consideration the large number of rabbits, and also the small number of the natural enemy, it could easily be seen that the natural enemy would never be able to cope with the pest

until the settlers first succeeded in getting the rabbits under. He said, when you have got the rabbits under, husband your natural enemy, and there would be little work to do. It was necessary to take strong measures in order to cope with the difficulty. The rabbitier earned his living by killing rabbits, and would destroy the natural enemy. He was sure the only true remedy was bisulphide of carbon, with phosphorized oats in the first instance.

Mr. PARK said that for the last nine years he had given considerable attention to the destruction of rabbits by the inoculation of diseases. The idea had been started by Dr. Creed to drive the rabbits off the face of the earth by tuberculosis. He had opposed that theory from that hour to the present time. He had gone over a hundred miles of country where they proposed to start from the centre, and at the place they started they found from 60 to 80 per cent. were affected by coccidium; but the rabbits were as numerous as they were at the beginning. He had no faith whatever in disease exterminating the rabbits—they bred too fast for that: the natural enemy of the rabbit was man. If they got population they would exterminate the rabbits, but not until then.

Mr. TABART said this was a very important question, and it was an extraordinary thing that, although you might meet twenty practical men, you would never find three of the same opinion on the matter of extermination. He was carrying out the provisions of the Rabbit Act in Tasmania, and he advocated wire-netting as the primary step, to be followed by poisoning. They found the laying of poison was most effective, and that the merino sheep would not take it so readily as the cross-bred sheep, particularly those coming off stubble-land. Trapping he considered the worst possible means of getting rid of the pest. The trapper would destroy the rabbits to a certain extent, but would take care that eradication did not follow; and with the trapper he believed they were encouraging the worst breed of people on the face of the earth. They were only encouraging an increase of population for the gallows; and that would be the effect in New Zealand if they encouraged trapping. Hunting with a large pack of dogs had been very effective; also fumigating and digging out burrows, and filling them in. Unless they could get the occupiers of land to take simultaneous action they would always have rabbits. This was the action required. He thought simultaneous action was all that was required. In using the plough you just turned the soil over, and got the furrow as level as possible; rabbits play along it, and take the poisoned grain freely in the proper season; but you wanted a clean country. It was necessary that the grain should be slightly covered, otherwise the minahs would take it all.

Mr. COLEMAN PHILLIPS was very glad to hear the various expressions of opinion. He wished to hear what Mr. Bruce had to say on the matter, because he had stated that they had waves of rabbits to contend with; but that gentleman was not now representing the Rabbit Department, which had been separated from his. In bringing his paper before the Conference he (Mr. Phillips) had not done it so much for New Zealand as for Australia, and he was afraid that the New Zealand representatives had confined their attention to their own experience, and had overlooked the other colonies. With regard to waves of rabbits going from droughty districts to grassy country, he thought that the netting erected would prove no remedy. The fact that rabbits were dying in millions near the fences did not prove that it was a remedy. What he wished to do was to put down the young rabbits before destroying these millions. With regard to what Mr. Ritchie had said as to the difficulty of getting combination amongst the farmers, he (Mr. Phillips) thought the settlers should be told that if they wanted the rabbits they could have them. So long as Government interfered the settlers would not combine to deal with the pest. Mr. Ritchie objected to spreading disease amongst the rabbits; but disease had been in the English warrens for centuries, and all that he (Mr. Phillips) was referring to was the disease natural to the rabbit. Mr. Lawry had agreed with him to a considerable extent. Mr. Roberts had warned the people of Canterbury, and he (Mr. Phillips) had warned them before, not to rely on the fence; and they should not do so; neither should Queensland. With regard to the ferrets, they did not do the work expected of them, and he believed the great majority of them did not live more than six months. The best fence erected was that in the Murrumbidgee district; but rabbits were carried over the Murrumbidgee during flood-time, and then turned the flank along the fence erected. Rabbits would turn the flank of any fence. As to the use of any one poison referred to by Mr. Roberts, he thought its constant use had proved its ineffectuality.

Mr. ROBERTS asked, in what way?

Mr. COLEMAN PHILLIPS replied that they had used it for a great many years, and they still had the rabbits. After using the poison two or three times they should not require to use it again. He had used the poison, but not in the plough-furrows, as many people used it. He found that turning over the sod was better than a long plough-furrow. Mr. Bidwill had supported the use of bisulphide of carbon. He (Mr. Phillips) said, "Use it once, and then be careful not to use it again;" because if they poisoned off the rabbits they would also poison off their natural enemy. If the Conference passed a resolution to the effect that the natural enemy was not useful, it would fly in the face of nature. In reply to Mr. Park's remarks as to the inefficacy of coccidium—liver-rot—and his having found that from 60 to 80 per cent. were affected, all he (Mr. Phillips) could say was that the liver-rot had cleared Tintinallagy. He knew that liver-rot and bladder-fluke had cleared the pest in his country. Liver-rot was in all the rabbit-warrens in England, and they were very useful diseases. Mr. Park had said that the natural enemy of the rabbit was man; he said that the natural friend of the rabbit was man, because in England they killed thirty millions every year. In France they had a vast number of rabbits, and in Belgium and other countries—the more men the more rabbits. Nature had made the rabbit a wonderful food-supply, and nature would not allow it to be cleared off. He was glad to learn that Mr. Tabart agreed with him as to the viciousness of trapping. That man is the true friend of the rabbit is proved by the one fact that there are a thousand million rabbits in Australia to-day where fifty years ago there was scarcely one.

Mr. PARK remarked that the majority were affected when they were from two to four months old, and if they lived for six months they recovered from the disease.

NOTICES OF MOTION.

Mr. ROBERTS gave notice of motion to the following effect: "That, as no disease exists in cattle in New Zealand, the Tasmanian Government be requested to allow New Zealand cattle to enter their colony without imposing any term of quarantine."

Mr. LAWRY gave notice of motion to the following effect: "That this Conference is of opinion that the various Governments of Australasia should take such steps as are necessary to foster and further develop the dairy industries which are, or may be, established in the colonies respectively under their charge."

Mr. BOAG gave notice of motion to the following effect: "That a Committee, consisting of the Chairman, Mr. Tabart, and Mr. Ritchie, be appointed to draw up the report of the Conference."

The Conference adjourned till 9.30 a.m. the next day.

FOURTH DAY.—FRIDAY, 28TH OCTOBER, 1892.

Present: Sir John Hall, K.C.M.G., and the full Conference. The Hon. J. McKenzie, Minister of Agriculture, was also present during portion of the proceedings.

The minutes of the previous meeting were read and confirmed.

REMOVAL OF RESTRICTIONS ON NEW ZEALAND CATTLE.

Mr. ROBERTS moved, "That, as no disease exists in cattle in New Zealand, the Tasmanian Government be requested to allow New Zealand cattle to enter their colony without imposing any term of quarantine." He thought the motion required no great discussion. The fact was established that the cattle in New Zealand were free from disease; and, that being so, it was only fair and reasonable to ask Tasmania to admit them. Any remarks he might wish to make would come better in reply to what Mr. Tabart, or gentlemen from the other colonies, might say. As far as he could ascertain, there was no disease in cattle in New Zealand, and he therefore hoped the motion would be passed.

Mr. BOAG seconded the motion.—Agreed to unanimously.

REPORT OF CONFERENCE.

Mr. BOAG moved, "That a Committee, consisting of the Chairman, Mr. Tabart, and Mr. Ritchie, be appointed to draw up the report of the Conference."

Mr. BRYDONE seconded the motion.—Agreed to.

THE DAIRY INDUSTRIES OF AUSTRALASIA.

Mr. LAWRY moved, "That, in the opinion of this Conference, it is desirable that the various Governments of Australasia should take such steps as will foster and further develop the dairy industries which are or may be established in the colonies under their charge respectively." He would not like it to be inferred or understood that the resolution meant that the Governments were necessarily to give assistance to these dairy establishments in the way of bonuses; because he had always looked upon bonuses as the very worst form of protection. They all knew that the dairy industry was one of the most important in the colony. What he meant was that the various Governments should take such steps as were necessary to popularise the industry by circulating literature on the subject, and teaching it as a science in the country schools. He knew a great deal about the subject, as he had been born in Cheddar, and his early associations had been connected with the milking of cows. In his time the industry was attractive, but in this colony it was not. There was a great difficulty in getting suitable milkers here. The subject, in his opinion, was one of such importance that he thought the Governments of the various colonies where the industry was established, or was about to be established, should do everything in their power to circulate literature having reference to it, and endeavour to popularise the industry. He thought it was the duty of the Government where the industry was under control to see that the produce was properly placed on the London market. He was very glad to see that the dairy produce of New Zealand was making a market for itself in London. Some time ago he had had a letter from Mr. Reynolds stating that he was getting on remarkably well, especially with butter; and he (Mr. Lawry) felt that the various Governments could do a great deal to foster and popularise the industry.

Mr. McNICOL seconded the motion.

Mr. ROBERTS said that, so far as the New Zealand Government and Parliament were concerned, they could not plead guilty to any want of interest and proper action in the direction of fostering the dairy industry. During the last three or four years the Government and the House together had provided suitable means for distributing information. They had sent dairy experts all over the country to give lessons in the different factories of the colony, and in many ways had endeavoured to educate the people employed in the dairy industry; and he thought their efforts had not by any means been followed by want of success. The appointment of Government Instructors had been most useful, and productive of considerable good. Mr. Lawry had made reference to the difficulty of securing milkers being a drawback to the dairy industry, and very rightly so. The occupation was unpopular—unpopular to a large extent through its being too much like hard work. It meant an arduous undertaking to look after a large dairy system. It meant working late and early, Sundays and week-days alike, and it was not surprising that it was looked upon with aversion as an occupation. Mr. Lawry had given him an opportunity to refer to co-operative dairies. He (Mr. Roberts) was part-owner of 1,500 acres down South set aside for this purpose. At one time the land was a swamp, and it had been reclaimed. They had been cutting up this low land into moderate-sized holdings. As far as practicable they had confined the area on each farm to 100 acres, and these holdings had been fenced off separately. The country being very low, and

liable to be flooded, had necessitated the raising of homestead sites, so that they had been called upon to raise half an acre on each holding with a view to erecting cottages, milking-yards, &c. They had with these milking-yards a cottage for the man and his family; and they had found no difficulty in getting the best of men, with families of from three to six, to go into occupation of the farms, milking on an average fifty-five cows to the 100 acres. The whole of these men had children old enough to assist them, and the man and possibly his wife were assisted by two and sometimes three of their children; and they had found that the man with his family were placed in such a position that they could comfortably overtake the work of fifty-five cows. The terms imposed were that the company were to remain the proprietors of the land. They stocked a farm at the beginning of each season with a fresh herd of cows. The men received $1\frac{1}{2}$ d. a gallon for their milk. The proprietors took the milk at the factory and converted it into cheese; and received as rent, and to cover the cost of making the cheese, the difference between the value of the milk sold at $1\frac{1}{2}$ d. a gallon, and what it was worth for cheese-making. In an ordinary season—it depended very much whether the man was a good milker; for a bad milker would soon put the cow off the milk—a man who was possessed of qualifications to properly control a dairy-farm could, by looking after the work during the season, make from £125 to £150 out of fifty-five cows at $1\frac{1}{2}$ d. a gallon; so that the men were thoroughly well satisfied, seeing that, in addition to the amount mentioned, they had a free house and free milk. They had found that the men, when they thoroughly got into the work, could extend the milking season for from six weeks to two months. As they all knew, in the winter grass disappeared, and unless provision were made for this, the cows went off at the end of May or the beginning of June. Their men found it best to enclose 5 or 10 acres for hay, so that the supply of hay they laid in in this way kept the cows in milk for six weeks or two months beyond the ordinary season, thus enabling them to secure a larger return. So far as the proprietors were concerned, they found it cost 1d. a pound for making cheese. They found that, for ordinary purposes, a gallon of milk would make a pound of cheese; and, seeing that the average price of cheese for a couple of years or so had been $4\frac{1}{2}$ d., the margin, after allowing for depreciation of the cattle, and after paying their rates, gave them something like £1 6s. an acre for rent. This was a very ample return on the value of the land. The land was estimated to be worth from £12 to £15 an acre. They had nine farms working at the present time on this basis; these were added to every year, and they hoped in time to have the whole 1,500 acres worked in this way. He thought these remarks might be of interest; and he believed that the co-operative dairy industry was profitable not only to those employed in it, but to the landowners themselves.

Mr. BOAG had proved by experience nearly all that Mr. Roberts had said. Years ago he used to have three dairies himself, which he found highly satisfactory while the prices were good. He used to let the cows at £5 a head, and £2 10s. a head for the heifers. He found everything with the exception of provisions, and derived considerable profit from the pigs. One man who had worked for him for six years, and for three years of that time, in addition to working six hours a day on the farm, had, with the assistance of his wife and a boy, milked thirty-three cows a day. This man left him with over £600 in his pocket. These were the class of people he should like to see in the country. They milked thirty-three cows. But when the cheese came down to $3\frac{1}{2}$ d. a pound, he did not make very much. It was a very good industry, and it gave an excellent opportunity to men with a little energy to make an independence for themselves. He could bear out Mr. Roberts's remarks *in toto*. In all his (Mr. Boag's) experience it was made imperative that the cows' bags and teats should be washed when required, and by so doing there was no necessity for dirt of any sort.

Mr. GORDON thought it was advisable to provide shelter for the cattle at nights. His Government had had an expert for four years, and so well had he done his work that one of his pupils had been able to take a responsible position in a northern district.

Mr. COLEMAN PHILLIPS said that Mr. Roberts had referred to his nine farms. He might be able to keep those in proper order—he might do so by raising the floor of the milking-sheds. He believed that it was only by the agricultural societies taking this matter in hand and offering prizes for the best-kept dairy, that they could hope to keep the produce up to a high standard. They would have to consider this phase of the matter if they wished to send large supplies of butter to England. If the Conference passed the resolution in its present form it would only emphasize the action of Victoria in granting large bonuses to the butter industry, and the Victorians would feel that they were quite justified in passing these ridiculous bonuses. He would point out that Mr. Roberts's remarks tended to show the value of co-operation, not Government assistance.

Mr. BRYDONE said Mr. Roberts had given such a good description of the dairying conducted at Henley that it was unnecessary for him to say much, as his company's dairy was conducted on very much the same principle. They had concrete floors in the milking-sheds, which were washed out after each milking. At Edendale they followed very much the same principle of dairying as Mr. Roberts had described. At first they had had difficulty in making the farmers believe that it was a paying business. He had had to buy about four hundred cows for the factory, but gradually they were beginning to lease the farms for dairying purposes, and getting the farmers to send in the milk. They had forty or fifty farms sending in milk at the present time. The company had only about a hundred cows themselves, and there were about a thousand or twelve hundred outsiders. The difficulty at first was the milking, but now the farmers did it with their own families. The manager of their property went round occasionally, and saw that the milking was properly done, and that the milking-places were kept clean. He believed that their milk when it went into the factory was as clean as it possibly could be. This milk was converted into butter and cheese, and exported, and they paid the current price for the milk. He had tried the leasing of the cows at first, but found it did not work satisfactorily, and now the settlers provided their own. The company leased them the land. The people seemed contented, and to be making a comfortable living for themselves; so that dairying, so far as the company was concerned, was a success, and their

prospects this year were much better than they had ever been. He noticed that their butter at Home was fetching £7 a hundredweight in the London market. A question had been asked by Mr. Gordon as to whether there was any shelter for the cows in winter. Some people provided this, but generally the cows ran out all the year round; they lay out in the fields night and day, summer and winter. Farmers as a rule gave their cows straw or turnips, and that was all the feed they got with the exception of grass. With regard to Government assistance, he would say this: his company had had a great deal to do with endeavouring to get help from the Government for this industry. He (Mr. Brydone) was President of the Dairying Association of the South Island, and knew what was going on, and what the Government were doing, and he would say that the Government were always willing to do what they could to assist the dairying industry. They had assisted his association. They had employed a man to go round and give lessons and spread literature in connection with dairying; and he believed the Minister of Agriculture (Hon. Mr. McKenzie) and Mr. Ritchie were anxious to do their level best to assist the dairy industry of New Zealand, and intended to do more than they had done, by getting skilled lecturers, and people who had experience and the latest information in connection with dairying. He understood it was their intention to help the industry in this way, and he believed it would do a great deal of good.

Mr. BOAG said that Mr. Brydone had stated that the Minister of Agriculture and Mr. Ritchie were willing to assist in this matter. He was very much pleased to know that, and asked them to go on with redoubled energy. There was talk in Canterbury just now about establishing creameries. People down there had been going in for the growing of root-crops, and many had done well; but last year, although thousands of tons of potatoes had been grown, they had been unable to dispose of them, and now were making up their minds to go in for dairying instead of root-growing, because dairy produce was not quite so perishable. Meetings were being held in various districts, and companies were being formed; and he hoped the Minister of Agriculture and Mr. Ritchie would consider their position, and give all the assistance they possibly could. He thought the industry would be a profitable one to those who had been growing root-crops in the past unsuccessfully.

Mr. PARK said it was very pleasing to hear Mr. Brydone defend the Edendale Factory, and it gave him great pleasure to hear how scrupulously clean everything was kept. He, however, was sorry to say he must support what Mr. Phillips had said in regard to the condition of dairies. In some cases the cows suffered from an eruption of the mammary gland, and were diphtheritic. He knew of one case in London where a man was ordered to throw away an infected cow's milk; but he fed the cats with the milk, with the result that fourteen cats had been proved to have died from its effects. Not very long ago he had seen a man sitting down to milk a cow with an eruption of the mammary gland, and noticed that he washed the gland in the milk-pail. That would cause sufficient infection to kill off a dozen people by diphtheria.

The CHAIRMAN said that Mr. Phillips's construction of the motion was that it would lead to the impression that the Governments should be asked to give bonuses. It conveyed no such impression whatever. At the Conference held on this subject in Canterbury the question of bonuses was raised, and it was rejected almost unanimously. While their friends in Victoria might do what they required, it was quite clear that in New Zealand they did not desire any assistance of this kind. He hoped what he had said would go forth with the remarks made by Mr. Phillips. He quite agreed that the Government could do a great deal in the way of disseminating useful information. He believed that that could be more thoroughly given if the course adopted by the agricultural societies of England were adopted—viz., that peripatetic schools should go round giving practical information as to the best method of working a dairy. It might be interesting to know what had been done by the New Zealand Legislature on the subject. They had provided that dairy produce for exportation must be branded, and state what it was: for instance, in the case of butter, whether it was made by a factory, creamery, or private dairy; with regard to cheese, whether it was full-cream cheese, half-, quarter-, or pure-milk cheese. The produce must be branded, and the cases must be branded, and provision was made for the correctness and truthfulness of the brand being secured. They hoped by this means to command confidence in the Old Country for New Zealand produce. That was the Act passed last session. He did not know whether anything of the kind had been done in the other colonies. He quite agreed with the vast importance of the question. The annual amount paid by Great Britain to Denmark, Normandy, and America for dairy produce was counted by millions. There was practically an unlimited market for this produce. The facilities for ocean transport had been enormously increased and the expenses reduced, and he saw no reason why the Australasian Colonies should not supply Great Britain with a great part of the dairy produce now imported by her.

Mr. TABART said that Sir John Hall had spoken of brands of butter: were those registered brands?

The CHAIRMAN said they would have to be. Copies of the Act and other information would be supplied by Mr. Ritchie.

Mr. ROBERTS said that in Dunedin there had been a very bad spread of typhoid fever, and a doctor reported that it was caused by the milk-supply. On going into the question they found they had absolute power to inspect dairies, and the result was that they appointed an Inspector, who ascertained that a milkman had been suffering from typhoid and kept his milk in the house, so that he supplied both milk and typhoid to his customers. They wished to take action, but the man defied them. They impounded the milk and had it condemned. An information was laid for selling impure milk, and a prosecution followed. Something like a hundred dairies were now inspected, and an Inspector had power to prevent milk about which he had any doubt from going into the city. So far as the cities were concerned, he was quite sure the milk now supplied was in a pure state.

Mr. RITCHIE said he was much pleased with the remarks made with reference to the Minister, who had fully realised the importance of fostering the industry in every possible manner. They were making inquiries as to cool-stores, and the appointment of agents in London. These matters were at present under the consideration of the Government, and in a short time he hoped to have

some definite information to guide them in the matter. With regard to the Dairy Industry Act, he had every hope that it would prove of great benefit to the colony. It was yet in its infancy, for it had only been in existence a few weeks, and people had not yet got into the working of it. He thought it was a fair Act, and would do good. He would be pleased to give copies of the Act and all other information in his possession to the delegates.

Mr. BRUCE said that in New South Wales they had an Act which included the supervision of dairies, and the cows were subject to the control of the Board of Health. Inspectors travelled through the country, and in every case places where the milking was done were inspected. There had been a great many prosecutions, and the Act was doing a great deal of good. He did not quite understand from Mr. Roberts whether the inspection he spoke of was done by the municipal authorities or by the Government.

Mr. ROBERTS said it was done by the Municipal Council. The Municipal Councils had ample power to deal with the matter: they could appoint their own Inspector, and do everything, under the Public Health Act.

Mr. BRUCE said their Act applied to the whole colony. There had been a good deal done by the Government in sending a travelling dairy round the colony. They knew a good deal about dairying, and he believed their colony was about the first to have a factory; indeed, they were rather famed for their butter. Connected with this question of dairying was that of grading butter by inspection. He understood from what he had heard that New Zealand had taken steps in this direction. He would like to obtain some information from gentlemen present on this subject, and to ascertain whether it was practicable to grade butter before leaving a port.

The CHAIRMAN said that Mr. Lawry was familiar with what had been done in the recent legislation. They had not decided to grade the quality of the butter, but to distinguish whether butter came from a factory, a separator, or a private dairy. It had been found that butter produced at a private factory and exported was branded falsely, and of course if that system was continued it would injure their dairy produce. Their efforts had been in the direction of distinguishing what butter was produced in private factories. With regard to cheese, it was to be distinguished as full-cream cheese, half-, quarter-, and pure-milk cheese, if it could be done. To that extent they did propose to grade dairy produce. They had had no experience in the working of the system yet, as the Act was only just passed, and no doubt they would find that in some respects it would require amendment.

Mr. BRUCE said it seemed to him that in going the length they had the question of grading must have been discussed at the time; and he would like the gentleman who had had the matter in hand to say what the general opinion was in this respect. The New South Wales Government were considering the advisability of appointing an expert to grade the quality of butter, somewhat on the same lines as that adopted in the case of the Cork butter. There had been four different grades of that for years.

The CHAIRMAN said the question had been gone into fully by a Select Committee of the House of Representatives to whom the Bill was referred. The question of grading was discussed, and the Cork practice was referred to; but they did not think they were in a position to go so far as that, and they confined themselves to what he had already described.

Mr. RITCHIE said he would be glad to give all the information he had on this question. The question of grading had come up, but the general opinion was decidedly against it at present.

Mr. LAWRY thought the discussion which had followed had shown the importance of the resolution, and had been of very great value not only to them individually, but also to all the colonies. Mr. Gordon asked whether it was advisable to keep cows in at night. His experience was that it was the worst possible thing to do. They should either keep them in altogether or keep them out. He once had a cowshed holding about a hundred cows, and he found that if the cows were not turned out altogether or kept in altogether they were liable to take chill. He thought the best plan was to get good pasture and let them out all night. Cleanliness in milking was in the matter of time alone an economy. He remembered reading a paper on the milking of cows before the Auckland Agricultural Society, and he there stated that no man was fit to milk cows unless he could put through ten cows in an hour. He employed a boy to wash the teats—for washing the teat had the effect of bringing the milk down into the udder without any delay. His own impression was that cleanliness was essential to economy in the milking of cows. The more water they used in washing a cow's teats the more expeditiously they did their work. There was one clause in the Act passed last session which provided for the inspection of dairies. Another important clause of the Act provided that no milk of diseased cows should be used. He hoped that clause would be carried out in its entirety, because nothing would have more effect in establishing the dairy industry in the London market than the knowledge that the New Zealand Government had determined that no milk from diseased cows should be used in connection with the produce. When the Bill came before the Agricultural Committee they had a vast amount of correspondence. Some information was given by Mr. Murphy, Secretary of the Canterbury Agricultural Society, which in his (Mr. Lawry's) opinion was of a most valuable character. He thought all the information would be found in the records.

The CHAIRMAN.—It is all printed.

Mr. LAWRY thought, if the gentlemen from Australia would take the trouble to read the correspondence they would gain a very large amount of information.

Motion agreed to.

DISEASES IN ANIMALS.

Clauses 28 to 31 were passed as printed.

Clause 32, as amended, confirmed.

Clauses 33 and 34 passed as printed.

Clause 35, as amended, confirmed.

Clauses 36 and 37 passed as printed.

Clause 38, as amended, and new clause, confirmed.

Clauses 39 and 40 passed as printed.

Clause 41, as amended, confirmed.

Clause 42 passed as printed.

Clauses 43 and 44, deletion confirmed.

Clauses 45 and 46, as amended, confirmed.

Clause 47, subclauses (1) to (3) passed as printed.

Subclauses (4), (5), and (6), as amended, confirmed.

Subclauses (7) and (8) passed as printed.

Clauses 48 and 49, as amended, confirmed.

Clause 50: "That a uniform code of regulations, embodying the resolutions passed by this Conference, be adopted by all the colonies."

Mr. TABART moved the addition of the following words: "It is desirable," after the word "That," in the first line, and after the word "Colonies," "That such code do come into force on or after the 1st January, 1893."

Mr. RITCHIE seconded.—Agreed to. Clause as amended agreed to.

Clause 51 was passed as printed.

The Conference adjourned till 10 o'clock on Monday next.

FIFTH DAY.—MONDAY, 31ST OCTOBER, 1892.

Present: Sir John Hall, K.C.M.G. (Chairman), and Messrs. Boag, Park, Tabart, Gordon, Bruce, Ritchie, and McLean.

The minutes of the previous meeting were read and confirmed.

CORRESPONDENCE.—EAR-MARKING OF SHEEP.

A letter was read from Mr. Whitcombe, of Pahiatua, proposing a scheme for the ear-marking of sheep.

Mr. BRUCE moved, "That Mr. Whitcombe be informed that his letter has been laid before the Conference, and that the Conference directed that it be referred to the Agricultural Department of the Government of New Zealand, which has the matter now under consideration."

Mr. TABART seconded the motion.—Agreed to.

FOREIGN DOGS IN QUARANTINE.

The following letter was received from Mr. David Bellhouse, Honorary Secretary of the New Zealand Kennel Club:—

SIR,—

New Zealand Kennel Club, Christchurch, 27th October, 1892.

Seeing that you are the Chairman of the Triennial Stock Conference, I beg to lay the following before you with the hope that the Conference will see fit to amend the present absurdly stringent quarantine regulations:—

A deputation from the New Zealand Kennel Club and Christchurch Dog Society waited upon the Hon. John McKenzie, Minister of Lands and Agriculture, on the 26th February, 1891, and pointed out to him the desirability of certain alterations being made in the present quarantine regulations. The deputation was introduced by W. B. Perceval, Esq., Agent-General for New Zealand, and the following proposals were made:—

1. That the Government should have the quarantine stations removed to more central positions in each of the centres, so that owners could visit their dogs at any time.

2. That the Government should allow "private" quarantines (as is the case in Victoria), approved of by the Inspector, and with the present inspection, &c.

3. That the time of quarantine should be six months, dating from the last port of call of an infected district—that is, any port outside of Australasia; penalties, &c., to be the same as at present.

4. That the Government should allow a slut to visit a dog in quarantine, or *vice versa*, provided she remained in quarantine until the dog was released.

This the Government has already allowed.

Now, Sir John, with regard to the first proposal, the cost, and risk of dogs dying for want of proper attention, prevents dog-fanciers from importing. To go from Christchurch to Quail Island in case of a dog being sick costs at least (26s. 8d.) twenty-six shillings and eightpence, not including the veterinary surgeon's fee; and, if the owner does not go to see his sick dog, what guarantee has he that his dog will receive that skilful attention which an experienced breeder could and would bestow, and which is absolutely necessary in the case of mange and kindred diseases, so likely to arise from the long confinement of a sea voyage? It was suggested to the Minister that possibly the old Emigration Buildings might be utilised as a quarantine for dogs. The Minister appeared to think that something might be done in this direction. Failing this, No. 2 proposal was made. There are at least two gentlemen here who are willing and anxious to go to the expense of building kennels for the quarantining of dogs. The kennels would be built as directed by the Government, and under the strictest supervision of the Inspector day and night, and heavy penalties for any infringement of the rules as laid down by the Chief Stock Inspector. This the Minister thought we had no occasion to press if the first proposal was carried out; but, Sir, I would ask why one colony should be allowed to have private quarantines and not another colony. Victoria has her private quarantines, and consequently her importations are large, and her breed of dogs good and in demand in this colony, and why the dog-fanciers in New Zealand should not have the same privileges, all other things being equal, I cannot understand. But, Sir John, the third proposal is the most important—

namely, the length of time a dog should be quarantined after arrival in the colonies. From all authorities the six months' quarantine is excessive and cruel, as said authorities all seem to agree that any dog sickening for rabies would develop them when crossing the Line, and would never reach these colonies. Now, without wishing to weary you, but rather with the hope that your Council will enable the Government, or, rather, the Triennial Conference will recommend their respective Governments, to change the time for quarantining dogs in the direction we propose, I give you the following figures :—

In 1863 Renault reported that of 68 dogs inoculated experimentally or bitten the malady was developed in—1, from the fifth to the tenth day; 4, tenth to the fifteenth day; 6, fifteenth to the twentieth day; 5, twentieth to the twenty-fifth day; 9, twenty-fifth to the thirtieth day; 10, thirtieth to the thirty-fifth day; 2, thirty-fifth to the fortieth day; 8, fortieth to the forty-fifth day; 7, forty-fifth to the fiftieth day; 2, fiftieth to the fifty-fifth day; 2, fifty-fifth to the sixtieth day; 4, sixtieth to the sixty-fifth day; 1, sixty-fifth to the seventieth day; 4, seventieth to the seventy-fifth day; 2, eightieth to the ninetieth day; 1, hundredth to the hundred-and-eighteenth day.

In St. Cyr's 87 cases of confirmed rabies in 1865, there were only 26 the date of whose inoculation could be positively ascertained. In these the latent period was—1 case, sixteen days; 1, eighteen days; 3, twenty-one days; 2, twenty-four days; 1, thirty days; 1, thirty-one days; 2, thirty-two days; 1, thirty-three days; 1, thirty-five days; 1, thirty-six days; 1, thirty-eight days; 1, forty-one days; 2, fifty days; 2, sixty days; 1, sixty-two days; 1, eighty-six days; 2, ninety to a hundred days; 2, a hundred and five to a hundred and fifteen days.

John Woodroffe Hill, F.R.C.V.S., says in his work on dogs "that the incubation period of rabies is extremely uncertain. My experience, with few exceptions, has been from two to five weeks." Röhl gives from three to six weeks, and, rare, from seven to ten.

With these authorities before us the dog-fanciers in New Zealand consider the present quarantine time of six months absurdly and ridiculously long. The time that a dog has to remain in quarantine under the present regulations is at least 225 days, or seven and a half months, and we propose that six months shall be the length of quarantine, dating from the last port of call of an infected district outside of Australasia.

I hope this letter will be in time to be considered by the Conference, and that the members will not think our canine friends, whose cause I am advocating, too insignificant to come under their notice, and that their time of confinement will be changed from seven and a half months to five months, particularly as they have to cross the Line, from whence no rabies can come here.

In conclusion, I would say that Mr. H. S. Fish, M.H.R., asked the Minister of Lands during the session of 1891 if any alterations were to be made in the quarantine regulations for dogs; and the Minister answered "Yes;" but nothing has been done.

Apologizing for the length of my letter,

I have, &c.,

Sir John Hall, M.H.R., Wellington.

DAVID BELLHOUSE, Hon. Secretary.

Mr. BRUCE said the question of the risk of introducing rabies was referred to the highest medical and veterinarian authorities in London some eight or ten years ago, and they had reported that there was no absolute certainty of immunity without prohibition, and that if the colonies were determined to admit dogs on quarantine they ought not to make it less than six months from the time of arrival, because they did not know what went on on board ship. There were authenticated cases where the time of incubation had been over eight months, and one, at any rate, in which it was eleven months. Victoria's action in permitting private quarantine had led to the owners of dogs in all the colonies pestering their Governments to adopt the same course. New South Wales had done so in one case, and when the Government veterinary surgeon went out about three weeks after, he found the man's other dogs and the quarantine dogs were all mixed together. That might go on in Victoria and anywhere else where private quarantines were permitted; and his Government had at once stopped the practice. It was only after solicitations from the dog societies that the Minister had yielded, and that was the result.

Mr. RITCHIE asked if it was considered necessary to continue the six months' quarantine and the voyage also—that was another forty-two days.

Mr. BRUCE said that at the time he referred to they counted the time on board ship; but, receiving remonstrances from the Board of Health that it was not safe, they went back to the six months from the date of landing.

The CHAIRMAN asked if Mr. Bruce did not think that sufficient time was allowed by a total six months, from the fact of the dogs passing through the tropics.

Mr. BRUCE said there was absolutely nothing in that idea.

Mr. McCLEAN concurred that there was nothing in that contention.

Mr. BRUCE instanced the positions of France and Mauritius. In the one case there was strict quarantine, and in the other there was none, while one place had hydrophobia and the other had not.

Mr. TABART said Tasmania always enforced six months' quarantine. His Government had been approached to establish quarantine stations for dogs near the centres of population, so that the owners might have an opportunity of training dogs in quarantine. He considered private quarantine an absolute abuse.

Mr. BRUCE moved, "That the reply to Mr. Bellhouse be to the following effect: (1) That the locality of the several quarantine stations must be left to the Government of each colony; (2) that the Conference cannot recommend that private quarantine grounds be permitted, remonstrances on this subject having been addressed to the Government of Victoria by the other Australasian Colonies; (3) that the Conference cannot recommend any reduction in the existing period of quarantine."

Mr. GORDON seconded the motion.—Agreed to.

The CHAIRMAN moved, "That this Conference sees no objection to a slut being allowed to visit a dog in quarantine, or *vice versa*, provided she remains in quarantine until the dog is released, or, if rabies is developed, that both dogs be destroyed."

Mr. McCLEAN seconded the motion.

Mr. TABART thought this would be establishing a very unwise precedent. If they permitted this in the case of dogs it would be demanded in the case of other animals. Owners would want ewes sent to the ram and mares sent to the horse in quarantine.

Mr. RITCHIE understood it was the practice at the present moment. He remembered telegraphing to Mr. Bruce last year asking if New South Wales would allow it, and getting an affirmative reply.

Mr. GORDON said, Suppose a slut were put in a fortnight before the dog was released.

Mr. McCLEAN said, In that case she remained until the dog went. The fact of a clean certificate being given for the dog would imply a clean certificate for the slut.

Mr. GORDON thought a dog might inoculate a slut before rabies was developed.

Mr. BOAG asked if the existing regulations allowed a slut to visit a dog in quarantine.

The CHAIRMAN believed they did.

Mr. PARK thought it better to let the matter work its own remedy. It was no good a professional man doing anything in the matter if the laymen were against him.

Mr. RITCHIE considered it was more a matter for the profession than for laymen.

Mr. PARK believed he was the only man there who had been to Pasteur's Institute and seen rabies. He could say that he had never seen a mad dog in his life. Many people had gone to the Institute under the impression that they had been bitten by mad animals, but there was no positive proof that that had been the case.

The Conference divided on the motion. For, 4: New Zealand, 3; Tasmania, 1. Against, 8: Queensland, 3; Tasmania, 2; New South Wales, 3.

Motion negatived.

INTRODUCTION OF FOREIGN STOCK.

The following letter was received from Mr. C. J. Valentine, Chief Inspector of Stock, South Australia:—

SIR,—

Stock and Brands Office, Adelaide, 17th October, 1892.

I have the honour to address you by authority of the Hon. the Minister controlling the Stock Department, and request you will place this letter before the Stock Conference.

There are two subjects of important general interest which I understand will be brought before the Conference, and one matter particularly affecting South Australia upon which I shall be pleased to obtain the concurrence of the Conference.

In asking that the Conference will accept this letter as an expression of opinion and intention to carry out such conditions in South Australia, should the Conference agree to make the alterations mentioned affecting the introduction of stock from beyond the Australasian Colonies, I wish to express my regret that South Australia is not represented at the Conference.

At the Stock Conference held in Melbourne in 1889 I moved for the reduction of the term of quarantine imposed on imported sheep to sixty days from the date of landing in Australia. Although the motion was rejected, I have been pleased to note since that time a desire on the part of the Chief Inspectors of the other colonies to accept a reduction of the term, and I hope the stock-breeders will also indorse such action should the Conference favour a reduction.

The second important matter to which I desire to draw your attention is the removal of the prohibition against the importation of swine from countries beyond the Australasian Colonies. There is a growing desire on the part of breeders to obtain a change of blood in their stock, and this I think should be carefully considered. Swine-fever has been so much less prevalent in Great Britain during the last year, and the term of incubation of the disease is known to be so short, that with the improved and careful restrictions placed on the introduction of stock into Australasia I believe the time has arrived when the prohibition may be removed, and swine admitted under a fixed period of quarantine of sixty days from the date of landing. The decision of the Conference in this matter I trust to be able to indorse.

At previous Conferences it has been agreed that stock imported from beyond the Australasian Colonies should only be landed at certain ports. In South Australia it was fixed to be at Port Adelaide. It has been found desirable that horses should be allowed to land at Port Darwin, and be there quarantined as agreed for a term of fourteen days; but, as no veterinary surgeon is stationed at Port Darwin, and the Inspector is a temporary Inspector, before making Port Darwin a port of landing it has been considered advisable to refer the subject to the Stock Conference. The course to be adopted would be for the importer to obtain a veterinary certificate of the health of the animal at the time of shipment, and the Inspector at Port Darwin to be satisfied the animal is healthy. It will then be landed and quarantined under his supervision.

Trusting the labours of the Conference will result in substantial benefit to Australasia,

I have, &c.,

C. J. VALENTINE, Chief Inspector of Stock.

The Chairman of the Stock Conference, Wellington, New Zealand.

Mr. RITCHIE moved, "That a reply be sent stating that the two first propositions—namely, the limitation of quarantine on imported sheep to sixty days, and the introduction of swine—had already been agreed to by the Conference; but that the proposal to land horses or other stock at Port Darwin without inspection by a veterinary surgeon cannot on any account be agreed to."

Mr. BRUCE seconded the motion.—Agreed to.

REPORT OF CONFERENCE.

The report of the Conference, as drawn up by the Committee appointed for the purpose, was presented.

It was decided to consider the report clause by clause.
Clauses 1 to 15, inclusive, were confirmed.

Interchange of Australasian Animals.

Clause 16 was passed as printed.

Clause 17: "Unclean vessels."

The CHAIRMAN said it had been suggested that this clause went too far, as it was thought that vessels coming from an unclean colony might be admitted if they had had no unclean stock on board.

Mr. TABART said they knew of vessels going to an infected colony: how were they to know that they had not taken scabby sheep on board?

Mr. RITCHIE said that at the present moment all the Australasian Colonies except Tasmania were barred in the way of cattle. New Zealand steamers were continually trading with those colonies, and if no provision was made to meet the difficulty these vessels would be deemed unclean.

Mr. TABART said it was a matter of great importance to Tasmania, for they had steamers belonging to one company which had traded with Western Australia and then come to Hobart to pick up sheep for New South Wales. Tasmania had always prohibited them, and would not let them in under any condition whatever. He thought that where a steamer travelled to a port which was unclean that vessel should be tabooed.

Clause 17 agreed to.

Mr. BRUCE moved, "That the following new clause be added after clause 17: 'That no stock, other than sheep, shall be imported by vessels that have, within the next preceding three months, had on board any infected stock, or any stock from any colony or country other than a clean Australasian Colony; and the captain of the vessel shall, when required, make a declaration to that effect: Provided that cattle may be imported into any colony for immediate slaughter in quarantine, and under proper quarantine regulations.'"

Mr. RITCHIE seconded the motion.

Mr. TABART moved, "That the word 'infected' be struck out."—Negatived.

New clause agreed to.

Clause 18: "That all stock intended to be landed shall be accompanied by a declaration from the owner, and a certificate by the Inspector or a qualified veterinary surgeon at the port from which such stock were shipped, that they are not infected, and had not during the next preceding twelve months been infected, and that they are from a clean colony."

Mr. RITCHIE moved, "That after the word 'infected,' in the fourth line, the words 'and that' be deleted, and the words 'also that, unless they are intended for immediate slaughter in quarantine, as provided by last-preceding resolution,' inserted."

Agreed to. Clause as amended agreed to.

Clauses 19 to 25 passed as printed.

Miscellaneous.

Clauses 26 to 41 passed as printed.

Clause 42: "Colonial stud-books to be kept."

The CHAIRMAN moved the addition of the words "and associations of stockowners" after the words "agricultural societies."

Mr. BOAG seconded the motion.—Agreed to. Clause as amended agreed to.

Clause 43 passed as printed.

Clause 44: "Measures for dealing with the rabbit-pest."

The CHAIRMAN moved the excision of all the words after "New South Wales," and the substitution of the following words: "and, as altered by these resolutions, be the measures recommended by this Conference for dealing with the rabbit-pest."—Agreed to.

Clauses 45 to 49 passed as printed.

Clause 50: "Precautions against the introduction of the gad-fly."

Mr. BRUCE moved, "That the following words be added to the clause: 'and that warbles (*Estrus bovis*, or gad-fly) should be included among the diseases to be dealt with by the several Australasian Governments.'"

Mr. TABART seconded the motion.—Agreed to. Clause as amended agreed to.

The remaining clauses of the report were adopted.

The report as a whole was adopted with a few unimportant verbal amendments.

INSPECTION OF MAORI SHEEP.

Mr. RITCHIE requested permission to read the following telegram, received from Inspector Hull, Wanganui: "Just arrived from trip. Examined all flocks to head of river, and found everything satisfactory."

EMBARGO ON THE STEAMER "TASMANIA."

Mr. BRUCE moved, "That, as the subject of this letter has already been dealt with by the Conference, the substance of the resolution adopted be communicated to Messrs. Huddart, Parker, and Co., and to the Union Steamship Company of New Zealand (Limited)."

Mr. TABART seconded the motion.—Agreed to. (See page 45.)

VOTES OF THANKS.

Mr. TABART moved, "That the thanks of this Conference be tendered to the Hon. the Minister of Agriculture for his hospitality and kindness and for the assistance he has accorded us in the conduct of our business." In moving the motion he (Mr. Tabart) and the other delegates from Australasia deeply regretted that they had not had the benefit of the Minister's presence at the opening of the Conference, but they hoped to learn on their return that he had so far recovered as to be able to attend to his duties, and that when he came to know what the Conference had done he would be pleased with the results of its deliberations.

Mr. BRUCE seconded the motion. He was in accord with what Mr. Tabart had said, and wished to add that, while thanking the Minister of Agriculture, they wished to add their thanks to the other gentlemen with whom they had come in contact in the colony for the great kindness they had received on all hands, and for the trouble taken to enable them to know something about New Zealand. He was quite sure they would take back information with them which would be of great use to them.

Motion agreed to unanimously.

Mr. GORDON moved, "That a hearty vote of thanks be accorded to our Chairman, Sir John Hall, K.C.M.G., for the able manner in which he has carried out his arduous duties." He need not add one word to this except to say that his (the Chairman's) patience must have been considerably tried during their debates. Sir John would, however, recollect that the delegates were not trained parliamentarians.

Mr. PARK seconded the motion, which was carried unanimously.

The CHAIRMAN thanked the Conference very heartily for the kind compliment paid to him, and assured them that it had been a very great honour to him to preside over so important an assembly. He regretted very much that he had not been able to be present on the opening-day; but he thought they would admit that his place had been efficiently filled by Mr. Roberts, to whom the thanks of the Conference were also due. Before he sat down he wished to say that the Canterbury Agricultural and Pastoral Association hoped to see the delegates at the annual show on Thursday week. Anything that could be done to make their visit pleasant and interesting the Association would have great pleasure in doing.

The proceedings of the Conference then terminated.

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