1885.

NEW ZEALAND.

THE RABBIT NUISANCE

(ANNUAL REPORT ON, BY THE SUPERINTENDING INSPECTOR).

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

Mr. B. P. Bayly to the Hon. the Colonial Secretary.

Sir,— Colonial Secretary's Office (Stock Branch), Wellington, 1st June, 1885.

I have the honour to furnish my annual report upon the rabbit nuisance and result of operations for the year 1884–85.

As the Rabbit Nuisance Act of 1882, which has hitherto been found to work satisfactorily, will expire on the 30th September next, it will be incumbent during the coming session that the Act be either extended over a further period or other measures adopted in lieu of it. I respectfully submit that the present Act be adopted in its entirety for whatever period Parliament may deem advisable.

With the exception of Lake District, where want of unanimity on the part of settlers, together with a too-lenient administration of the Act by the Inspector in charge, offers an unfavourable contrast with work done elsewhere, I find that the operations of the past year have been generally satisfactory, and a further diminution of the pest apparent, but not so marked as during the previous year. I account for this by the fact that our means of destruction are at present taxed comparatively to their utmost limit, and see no hope of permanent relief until the natural enemy has sufficiently increased to act as a decided check on the pest's increase during the summer months.

As the greatest difficulty to be surmounted lies in the fact that the system of rabbit-destruction by poison cannot be confined to that means throughout the year, so that the good derived during winter will not be neutralized by the increase in numbers during summer; and I am strongly of opinion that great encouragement should be offered for the purpose of discovering a poison that will be effectual during the summer season.

I have again this year to call attention to the amounts paid annually by the department for clearing reserves of all descriptions which otherwise would become mere rabbit-warrens, and again urge the necessity of letting all or any that may be fit for grazing purposes, but which are neglected by their ostensible owners. If this were adopted, one large item in the annual expenditure would be avoided. My suggestions in this direction were given fully in last year's report. I also alluded to the danger that might be apprehended from the rough and inaccessible country between Lakes Wakatipu and Wanaka; and I regret to say that my anticipations have been verified. In February last I visited the west side of Lake Wanaka, and travelled from thence nearly to the Haast Saddle, on the Makarora River, and saw either rabbits or traces of them throughout the whole distance. Near the lake itself they are coming in rapidly on ground where less than two years ago no rabbits existed, and are to be met with in patches for a distance of fully fifteen miles north of the lake. Beyond this again only an occasional rabbit or traces are as yet to be seen; and, although undoubtedly they may be vastly reduced in numbers on all occupied ground during poisoning season, yet this country will each season be restocked from the back wastes. There is a further element of danger here which should not be overlooked; the pest is established on the main range of mountains forming the western watershed, extending throughout the South Island, and sooner or later will work along this route into the back of Canterbury country. It is here that every effort should be made to check their increase by turning out as many of the natural enemy as can be obtained, and with as little delay as possible. Most of the area referred to is quite inaccessible to man, yet affords sufficient scope for the rabbits to stock the neighbouring country.

During the past twelve months two shipments of stoats and weasels have been received by the Government, and all doubt as to the possibility of introducing these animals removed, the success attending these shipments having exceeded all expectations. By the first shipment, that

arrived in July last per "Doric," out of 74 weasels and 27 stoats shipped 67 weasels and 23 stoats were landed. The weasels were released on a peninsula of about 8,000 acres, on Wanaka Lake. I visited the place about three months ago, and the effects of their presence were unmistakable: although the ground adjacent to where they were liberated had not been poisoned or otherwise dealt with for over twelve months, rabbits were scarce and deserted burrows plentiful. The stoats which were turned out on the east side of Hawea Lake, have been seen on several occasions, are said to be doing good work, rabbits evidently killed by them having been repeatedly found. In January last another shipment arrived per "Ionic," consisting of 116 weasels and 32 stoats, out of 128 weasels and 33 stoats shipped. To test the market value of these animals, as well as to ascertain whether their introduction was appreciated, it was determined to offer one-half of the shipment for sale by auction in equal proportions at Wellington, Christchurch, and Dunedin. This was done, with the result that the demand was far in excess of the supply, and the prices realized were very satisfactory. The remainder not sold—43 weasels and 14 stoats—were liberated on Crown lands, at the following places: 28 weasels and 6 stoats at Lake Wakatipu, 15 weasels at Waiau, in Wallace County, and 8 stoats at Mesopotamia, Ashburton County. Some weasels were also intended for the latter place; but, as immediate means of transit were not procurable without running the risk of losing a number, I was obliged to take them on to Otago, there sell a portion, and liberate the remainder. 20 weasels and 6 stoats were sold at Wellington, 18 weasels and 6 stoats at Christchurch, and 35 weasels and 6 stoats at Dunedin. I subsequently visited the ground where the animals were released at Lake Wakatipu, and saw weasels in pursuit of rabbits. As stoats and weasels can now be successfully introduced, these and other natural enemies must be solely depended on for dealing with the far interior. It may be interesting to know that immediately the success of the above importation was seen a syndicate of runholders was at once formed for the purpose of introducing another shipment as a private undertaking, and the same man (Allbones) who had charge of previous shipments engaged to bring out three hundred animals, or as many as space could be provided for in one vessel. Government has since employed another agent for a similar purpose, and, should this shipment prove successful, I purpose liberating the whole consignment at the head of Wanaka Lake, or as near to Haast Saddle as possible.

Ferrets are generally reported to be doing good work, and are evidently doing well in parts of the colony where my impression was that the climate would be too severe in winter for their existence. The number bred privately this year far exceeds that of last, and their utility is, as a rule, being recognized, but not to the extent it should be. Great numbers of them are annually destroyed where trapping and dogging is carried on. Very few of those who are trying ferrets as an expedient either clear their ground sufficiently of rabbits or turn their ferrets out in sufficient numbers on any one block so as to give the ferret a fair chance against the number of rabbits. A few turned out here and there, where rabbits are numerous and constant work required, is of little service. A procedure which manifestly must militate against the fair increase of or benefit derived from turning out these animals is, I regret to say, caused in some instances through property-holders, who should know better, indiscriminately purchasing, at a low price, mixed lots of ferrets, without ascertaining where from or how obtained. This offers a premium for rabbiters to trap and sell at a figure which cannot possibly pay the breeder. There have been 534 ferrets purchased this year and liberated on various reserves and Crown lands in Wallace, Southland, Clutha, and Lake Counties; 177, bred at the Government dépôt at Waimata, were released on Canterbury boundary at head of Wanaka Lake; 45 from the dépôt were turned out on Crown lands near the Napier and Wellington boundary, besides 30 that were purchased and turned out on the Awhea and Haurangi Blocks, in the Wairarapa. The distribution of ferrets on terms has in no instance been found a success, those taking them usually from want of experience lose them by disease, or are not successful as breeders. I have abandoned the idea of any further attempts in this direction, and I find the purchase of healthy young ferrets, at the Government price of 10s. per head, by far the cheapest and most satisfactory method. The dépôt at Waimata has only been moderately successful; at the same time I deem it necessary to continue this establishment, so that ferrets may be turned out as rabbits appear near the Napier-Wellington boundary fence.

No improvement on the phosphorized-grain method has been discovered, nor have any new methods been reported during the year. The block system of poisoning in winter is now generally recognized, and adopted everywhere with satisfactory results, and is admitted to be absolutely necessary where success is desired.

In Canterbury the reduction of rabbits on what few stations they were known to exist has proved satisfactory. Here they have been taken in time, and, by not allowing them to increase in numbers beyond control, they can and are being kept well under. Should a sudden increase of the pest take place here, I do not expect to see it arise from rabbits bred within the district, but look upon an influx from the back country as the danger to be dreaded; and every precaution is necessary to meet the emergency, should it arise. So far as possible, I have liberated stoats, weasels, and ferrets near to the margin of the pest; but far more are required to make this part safe from encroachment. It is proposed during winter to poison all accessible portions of waste lands in this country; and it is on areas of this description, which, under ordinary circumstances, can, even in summer, only be partially dealt with, that a bait as attractive at that season as phosphorized grain is in winter would be invaluable, even if more expensive in its adoption.

Nothing further has been reported of the disease in rabbits resembling tuberculosis to which I referred in last year's report; nor do I think the matter to be of sufficient importance to be worth further investigation. With a view to dealing with local matters with greater celerity, departmental changes have been made by which the Chief Inspector of each district now exercises the same authority and control over rabbit matters that he has hitherto exercised under Stock Acts only; and it is expected this will act beneficially, inasmuch as district matters will now be under closer supervision, and immediate requirements attended to with greater facility than has hitherto been practicable. In conclusion, I may remark that, having fully dealt with the whole question

from all its bearings in last year's report, I can only indorse what I there stated. The number of rabbit-skins exported during the last financial year shows that good work has been done, while the gradual increase in the number of sheep in Otago shows that rabbits must be diminishing in numbers. I cannot, however, at present hold out much hope of any cessation to the continuous annual expenditure and exertions necessary to keep the evil within bounds until the natural enemy turned out has increased sufficiently to act as a check on the pest's increase.

It is satisfactory to see, on country overrun two years since, that the carrying capacity of some runs has again increased by thousands of sheep, and on others full percentage of lambs, with excellent clips, were obtained, attributable to reduction in numbers of rabbits, together with two favourable seasons for pasture.

Attached returns show the Government expenditure for the year and other tabulated matter.

I have, &c.,
BENJN. P. BAYLY,
Superintending Inspector.

The Hon. the Colonial Secretary, Wellington.

STATEMENT OF EXPENDITURE, &c.

District.	Number of Tenders accepted.	Amounting to			Quantity of Phosphorus used in District.	Quantity used for Crown Lands.	Quantity sold.	Quantity on Hand on 31st March last.	Total Number of Skins exported from the Colony during Year ended 31st March, 1885.	Value.	Estimated Area of Crown Lands to be dealt with this Year.
		£	s.	d.	lb.	lb.	lb.	lb.		£	Acres.
Napier	...	...			5	5	...	5	...	...	13,000
Wellington ...	...	...			...	...	...	...	889,436	9,220	...
Wairarapa North ...	4	30	10	0	8	4	4	...	...	...	...
Wairarapa South ...	13	171	15	0	148	18	130	32	...	...	25,000
Nelson	1	25	0	0	41	6	35	41	...	...	...
Blenheim (Picton) ...	1	65	0	0	35	35	...	198	68,736	848	...
Kaikoura	1	20	0	0	40	40	...	70	...	...	4,000
Timaru	...	...			2	2	...	30	...	..	...
Lyttelton... ...	...	...			...	...	...	...	1,525,730	15,728	...
Oamaru	2	68	0	0	150	...	150	...	24,534	256	5,000
Palmerston ...	9	98	0	0	193	...	193	333	...	...	3,000
Dunedin	2	38	0	0	40	10	30	180	7,014,993	79,242	15,000
Naseby	1	5	0	0	...	...	...	...	...	...	600
Clyde	4	709	11	0	...	...	80	540	...	...	27,700
Tuapeka	10	266	0	0	...	47	591	412	...	...	34,800
Balclutha ...	8	143	10	0	...	158	242	318	...	...	7,000
Queenstown ...	4	423	0	0	...	50	40	400	...	...	40,000
Invercargill ...	12	380	0	0	...	100	...	300	345,636	3,346	...
Southland ...	10	429	18	7	...	203	300	574	...	...	258,300
Totals ...	82	2,873	4	7	662	678	1,795	3,433	9,869,065	108,640	433,400

GENERAL REMARKS.—Payments to agents, labour, material purchased, and other contingencies not included in this expenditure. It is impossible to give the number of skins from each district; but the total export for the whole colony from the 1st April, 1884, to the 31st March, 1885, is shown herein, as exported from the different ports. The number of rabbit-skins exported during year ended 31st March, 1884, was 9,892,341, of the value of £100,677.

APPENDIX.

SIR,— Colonial Secretary's Office (Stock Branch), Wellington, 1st April, 1885.

I have to request that you will be good enough to furnish replies to the following questions with as little delay as possible. The period to which these questions refer is between the 1st April, 1884, and the 31st March, 1885.

I have, &c.,
B. P. BAYLY,
Superintending Inspector.

Rabbit Inspector,

(1.) What means have been adopted for destroying rabbits?
(2.) Have you any recommendations to make?
(3.) What progress has there been made?
(4.) How many tenders have been accepted?
(5.) What did the whole of them amount to?
(6.) Number and description of reserves you will require to deal with, and the approximate area of such available for grazing purposes?
(7.) What quantity of phosphorus was used for Government purposes?
(8.) What quantity was sold to private individuals?
(9.) What was the quantity on hand on the 31st March last?
(10.) Number of skins exported?

(11.) Number of prosecutions?
(12.) Number of convictions?
(13.) Number of dismissals?
(14.) Names of owners of properties dealt with under section 11?
(15.) Number of ferret-breeders?
(16.) Have any ferrets been turned out; and, if so, with what results?
General Remarks:

From Rabbit Inspector Lewis, Napier.

(1.) Shooting, poisoning, ferreting, and hunting with dogs. (2.) None. (3.) A few dozen rabbits have been destroyed. (4.) None, to my knowledge. (5.) Nil. (6.) No reserves. A block of land (about 13,000 acres, situated near Waimata, nearly all bush, and not reserved) has a Government Rabbit Agent stationed on or near the block to keep it free from rabbits. (7.) 5lb. (8.) None. (9.) 5lb. (10.), (11.), (12.), (13.) None. (14.) None reported. (15.) One, the Government Sheep Inspector at Waimata. (16.) Forty-four have been turned out upon the land referred to in query No. 6, with good results. *General Remarks.*—In the Napier District a few rabbits are known to exist upon several runs; but since my arrival in Napier no complaint has been lodged in this office regarding those rabbits.

From Rabbit Inspector Drummond, Masterton.

(1.) Poisoning, shooting, trapping, killing with dogs and ferrets, snaring, digging out, and the turning-out of ferrets; clearing bush and scrub land, and rabbit-proof fencing. (2.) I have no special recommendation to make. (3.) On the whole there has been, during the period mentioned, a material decrease in the number of rabbits in the district under my charge. (4.) Four. (5.) £30 10s. (6.) None in my district. (7.) 4lb. (8.) 4lb. (9.) None. (10.) Cannot say without making further inquiries. (11.), (12.), (13.) None. (14.) None. (15.) A good number, but cannot say definitely how many. (16.) A considerable number have been turned out, with excellent result. *General Remarks.*—I think that stock-owners in this district are becoming alive to the necessity for adopting strong and continuous measures for the destruction of the pest, and I am in hopes that if those enumerated under the first question are maintained the results will eventually be eminently satisfactory.

From Rabbit Inspector Orbell, Masterton.

(1.) Phosphorized grain during the winter months, fumigation with bisulphide of carbon and chemicals, hunting with dogs, shooting, ferreting, trapping, burrows broken up, cover cleared and destroyed. (2.) Ferrets to be turned out on the waste lands of the Crown. (3.) Good progress; the diminution of the pest very satisfactory. (4.) Thirteen. (5.) £171 15s. (6.) Ten, including Crown lands; about two-thirds bush, remainder pastoral; approximate area, 25,000 acres. (7.) 18lb. (8.) 130lb. (9.) 32lb. (10.) Unknown. (11.) Three. (12.) Three; fines, total, £71. (13.) None. (14.) John Wyett Lee. (15.) Unknown. (16.) Yes, with very satisfactory results. *General Remarks.*—Rabbits considerably reduced. The mode now chiefly adopted for their destruction is by establishing ferrets and other natural enemies, and by the use of phosphorized grain. Dogging, trapping, and fumigating are not now resorted to except on small holdings. Wild ferrets are fast increasing, and their work is perceptible, with very satisfactory results. I have great faith in the phosphorized grain and the ferrets doing the work of extermination upon the pastoral country. Other modes of destruction may be resorted to upon small cultivated holdings near the townships. Energy and perseverance are essential for the successful coping with the pest, and I may say the settlers generally have done good work.

From Rabbit Inspector Price, Nelson.

(1.) Poison, guns, traps, and dogs. (2.) None. (3.) Satisfactory. (4.) One—viz., G. H. Kidson. (5.) £25. (6.) I shall not have to deal with any this year, the rabbits upon them being very scarce, and for grazing purposes they are comparatively useless. (7.) 6lb. (8.) 35lb. (9.) 41lb. (10.), (11.), (12.), (13.), (14.), (15.), (16.) None. *General Remarks.*—The pest, as a rule, has been well kept down. I have no fear of the rabbits ever becoming a nuisance, as the nature of the soil in most places prevents them burrowing.

From Rabbit Inspector Richardson, Blenheim.

(1.) Turning out ferrets, laying phosphorized oats, and occasionally carrots poisoned with arsenic, trapping, and shooting. (2.) None, with the exception that the Government phosphorus be sold at as low a rate as it can be obtained by private individuals. (3.) Very satisfactory, where poisoning has been done systematically and ferrets turned out afterwards. The chief difficulty is to get the smaller runholders to work in unison. (4.) One. (5.) £65. (6.) None. (7.) 35lb. (8.) None. (9.) 198lb. (10.) Cannot ascertain. (11.), (12.), (13.), (14.) None. (15.) Seven. (16.) 1,679 have been turned out, with very good results, principally on Starboro', Vernon, Richmond Brook, and Flaxbourne Runs.

From Rabbit Inspector Clifton, Kaikoura.

(1.) The turning-out of large numbers of ferrets, poisoning, ferreting with nets, shooting. (2.) That the breeding of ferrets for turning out be encouraged; that the wild ferret be further protected; that trapping be made illegal; that poisoning be continued where ferrets are not sufficiently numerous. (3.) Satisfactory, above all where ferrets are numerous. (4.) One; none now existing.

(5.) £20. (6.) Native, Hapuka, Kincaid, South Bay and Peninsula, North and South Beach, and unsold Crown lands; area, about 4,000 acres; available for grazing, about 600 acres. (7.) 40lb. (8.) None. (9.) 70lb. (10.) 20,000. (11.) Three, under section 29. (12.) Two. (13.) One. (14.) None. (15.) For sale, five; runholders, for turning out, four. (16.) About 1,200; results excellent. Eight weasels have also been turned out. *General Remarks.*—The rabbit pest is held well in check. The natural enemy is the principal means of this satisfactory result. All dealing in ferrets, except by licensed breeders, should be made illegal. The poisoning of Crown lands has been zealously carried out.

From Rabbit Inspector Rees, Timaru.

(1). Dogs and gun. (2.) The turning-out the natural enemies of the rabbit in as large numbers as possible; and granting the right of using all reserves to private individuals, who shall be responsible for keeping down the rabbits on such reserves. (3.) Most satisfactory progress has been made, the rabbits having been got under most wonderfully in all portions of the district except a small patch on the Rangitata Island, where poison must now be employed. (4.), (5.) None. (6.) Certain small reserves on the Rangitata Island (area small), and the unoccupied Crown lands between Richmond and Mesopotamia and Mount Peel Stations. Area large; but rabbits only in patches. (7.) 2lb. (8.) None. (9.) One case, 30lb. (10.) Unknown. (11.), (12.), (13.), (14.) None. (15.) Three or four. (16.) Very few, and effects not known. *General Remarks.*—The diminution of the rabbit pest through the Mackenzie Country and other adjoining portions of this South Canterbury District is very marked. They (*i.e.*, rabbits) increased during the summer on Rangitata Island, but since shearing are again being well got under by dog, gun, and ferret, and the island will be now well poisoned. The state of the South Canterbury District, as compared with when I took charge in July, 1883, is most satisfactory.

From Rabbit Inspector Fullarton, Oamaru.

(1.) Phosphorized oats, dogging, shooting, trapping, ferreting, fumigating, and digging out. (2.) The penalties at present under the Rabbit Nuisance Act for breaches of it should be greatly increased for large properties. (3.) Very good progress has been made over the district with the exception of a portion of the Horse Range, in the south of the county, where a difficulty has been met in getting one owner to comply with the Act during summer. (4.) Two. (5.) £68. (6.) Six, consisting of poor land, rough and broken, with gullies, having scrubby bush in most of them. Area about 5,160 acres; two-thirds available for grazing. (7.) None. (8.) 150lb. (9.) None. (10.) Through Customs, 24,534. (11.) One. (12.) One. (13.), (14.) None. (15.) One. (16.) Yes; also a few stoats and weasels. Rabbits decreased where turned out. *General Remarks.*—The rabbit pest in the Waitaki County is confined almost entirely to the rough, broken pastoral land at the southern end and up the Waitaki, and there mostly where the country is very broken or has a good deal of scrub. On the whole the pest has been greatly decreased. The simultaneous action taken during last winter has had a very marked effect in the localities where carried out properly, and the pest has been easily kept under during summer.

From Rabbit Inspector Miller, Palmerston South.

(1.) Simultaneous poisoning in winter; trapping, shooting, and ferreting during summer; fumigating and digging out. (2.) None. (3.) Progress of a most satisfactory nature. (4.) Nine. (5.) £98. (6.) Nine; about 3,000 acres, great portion of which is bush land. (7.) None. (8.) 193lb. (9.) 333lb. (10.), (11.), (12.), (13.), (14.) None. (15.) Five. (16.) There are some known to be out, but results not yet noticed. *General Remarks.*—The work in the Waikouaiti and Waihemo Districts has been carried on in a satisfactory way during the last twelve months, and there has been no occasion to prosecute.

From Rabbit Inspector Johnson, Dunedin.

(1.) Phosphorized grain during the winter; trapping, dogging, and shooting through the summer. (2.) Consider the Rabbit Act as it now stands could not be improved on. (3.) Very good indeed up to December, 1884. (See general remarks at end.) (4.) Two. (5.) £38. (6.) Two: Hundreds (Hindon and Mount Hyde), area 13,765 acres; Native Reserve, area 1,100 acres. The whole of the Hindon and Mount Hyde Reserve available for grazing purposes. (7.) 10lb. (8.) 30lb. (9.) 180lb. (10). 7,014,993. (11). One. (12.) One. (13.) None. (14.) No properties dealt with under section 11. (15.) Six. (16.) Unable to say how many have been turned out. Results not noticeable. *General Remarks.*—Up to the middle of December, 1884, work in the Taieri portion of the Dunedin Rabbit District was carried on most satisfactorily. Since then I am unable to report what has been done, having been absent in charge of the Canterbury District.

From Rabbit Inspector Shaw, Naseby.

(1.) During the winter months poisoned grain; for the remainder of the year dogging, shooting, trapping, and bisulphide of carbon, and digging out burrows. (2.) None. (3.) Great progress has been made during the year to eradicate the pest; the grass being very abundant throughout the country, and the stock looking remarkably well. (4.) One. (5.) About £5. (6.) Township Reserve, Hyde; about 600 acres. On all other reserves the rabbits are kept down for right of grazing, either by runholders or settlers. (7.) None. (8.) None. (9.) None. (10.) 326,508. (11.) None. (12.) None. (13.) None. (14.) None. (15.) Five. (16.) On Linburn over two hundred have been turned out, with fair results. On Taieri Lake Station one hundred were turned out, and they are doing good service, as the return of skins on this station is 9,000 less than last

year. *General Remarks.*—All landowners in this county have worked well for the last twelve months to keep down the pest. I have no doubt this winter's poisoning will reduce the rabbits to a very low minimum. The ferrets are doing good work wherever they have been turned out, especially amongst the young rabbits.

From Rabbit Inspector MILES, Clyde.

(1.) During winter months simultaneous poisoning on boundaries; remainder of year trapping, shooting, and digging out; principally trapping. Ferrets have also been turned out by several parties, and a few stoats and weasels were turned out at Lakes Hawea and Wanaka by the Government. (2.) None. (3.) Most satisfactory work has been done by one and all, with the result that rabbits are greatly reduced throughout the county. The sheep clipped remarkably well, and are in fine condition. The lambing would have been excellent, but for most unfavourable weather during lambing. (4.) Four. (5.) £709 11s. (6.) Four—namely, Black's Commonage, containing about 1,700 acres; Clyde Commonage, containing about 6,000 acres; Cromwell Commonage, containing about 8,000 acres; Hawea Hundreds, containing about 12,000 acres: total area, 27,700 acres. Contracts have been let for Clyde and Cromwell Commonages. And in the Hawea Hundreds, as rabbits are greatly reduced and confined to the boundaries right away from the settlers, I put on a wages man at 30s. per week and phosphorus, he to find his own grain. Other Government lands are grazed by neighbouring owners, they keeping down the rabbits. (7.) None. (8.) 80lb. (9.) 540lb. (10.) 1,895,940. (11.) Two. (12.) Two. (13.) None. (14.) None. (15.) Five. (16.) About 450 ferrets turned out. No perceptable good known anywhere. Some stoats and weasels were turned out by the Government, and are apparently doing well. *General Remarks.*—The united and simultaneous work done on boundaries during past poisoning season, being the result of the meetings convened by me throughout the county, resulted in great slaughter amongst the pest, and, as all landowners kept men on during the spring and summer months, and thus checked the increase, the rabbit nuisance is greatly decreased throughout the county. The high country generally is perfectly free from rabbits; and, as they are confined to the low ground, and not scattered to any great extent, a judicious and simultaneous poisoning this winter should reduce the pest in Vincent County to a minimum.

From Rabbit Inspector BOURCHIER, Queenstown.

(1.) Poisoned grain by phosphorus, trapping, dogging, and shooting, and by means of turning out ferrets. (2.) That the Government should continue to turn out stoats and weasels, especially on the back country, it being so inaccessible that there is hardly any probability of clearing same, except by natural enemies or some disease. (3.) There has been good progress made during the winter months, and the rabbits were greatly reduced; but they increased rapidly in the spring, when they would not eat poison. (4.) Four accepted, six completed, one cancelled. (5.) £423, about. (6.) About four hundred reserves, mining, quarry, and the banks of rivers and creeks, chain on either side, and blocks reserved for settlement. Over 40,000 acres, or thereabouts. (7.) 50lb. (8.) 40lb. (9.) 400lb. (10.) 720,000. (11.) Nine. (12.) Nine. (13.) None. (14.) Patterson, McBride, Brown, O'Kane, and Hallenstein. (15.) Fourteen. (16.) Yes; but not in sufficient number to make any appreciable difference yet, although in places it can be seen. *General Remarks.*—Owing to the nature of this district, it is rather difficult to keep the rabbits under during the summer months, as it is not much use laying poison then, as only a few eat it, and it seems to frighten the others. Where poison is only laid in the winter, the destruction is far greater and cleaner. The stoats and weasels were seen several times since their release hunting, and the ones seen were looking well. One was seen three miles from where it was originally placed, hunting rabbits. I think that the Government should continue to release stoats and weasels, as they can go after rabbits into country where man has never been, and where the rabbits will restock the cleaned country from.

From Rabbit Inspector HICKSON, Tapanui.

(1.) Poisoning with phosphorized grain in the proper season, the remainder of the year trapping and snaring; Burt's and Watson's exterminators, bisulphide of carbon, shooting, ferreting, dogs, and digging out. (2.) That County Councils should be answerable for the destruction of rabbits on reserves and commonages in goldfields districts, from which they derive a revenue. (3.) Very great progress has been made, which the country from its appearance will show; also the number of sheep in my subdivision by last year's return over the previous. I also expect the coming one larger still. (4.) Ten. (5.) £266. (6.) 34,804 acres, comprising bush reserves—Tuapeka West District, 2,801 acres; Glenkenich District, 911 acres: both of which could be leased, with timber right reserved. Mining reserves: Tuapeka East District, in different blocks, 2,316 acres; Waipori Commonage, 2,160 acres; Mount Benger Commonage, 9,000 acres; Pomakaka Hundred, Rankleburn District, unsurveyed, about 15,000 acres; the balance not available. (7.) 47lb. (8.) 591lb. (9.) 412lb. (10.) Unable to find out the number. (11.) Seventeen. (12.) Sixteen. (13.) One. (14.) None. (15.) Three on large scale, a number on small. (16.) Numbers have been turned out. Result not seen yet; ferrets spread over country when released. *General Remarks.*—The Act generally has been a great success and worked well. I have this year a greater extent of country to attend to than last, through two runs and several pastoral deferred sections being cancelled. I called meetings in different parts of my district last year for the purpose of getting the settlers to take combined action in laying phosphorized grain, and also had Vigilance Committees appointed, from which there was a good result. I am also doing the same this season. I have had to employ extra wages-men in consequence of the above two runs and pastoral sections being cancelled. In all probability the whole will be soon re-leased.

From Rabbit Inspector MACKAY, Balclutha.

(1.) Shooting, dogging, trapping, digging out in summer, and poisoning with phosphorus in winter. (2.) None. (3.) Very good. (4.) Eight. (5.) £143 10s. (6.) 106; bush, mining, quarry, coal, ferry, and unsold lands. About 7,000 acres available for grazing purposes. (7.) 158lb. (8.) 242lb. (9.) 318lb. (10.) Cannot ascertain. (11.) Two. (12.) Two. (13.) None. (14.) None. (15.) Five. (16.) Ferrets have been turned out, with very good results. *General Remarks.*—The present Rabbit Act works satisfactorily.

From Rabbit Inspector MACDONALD, Gore.

(1.) The most effectual and best-recognized means are phosphorized oats as poison in the winter season; trapping and digging out in spring. Ferrets and nets are found serviceable, as well as fumigation in burrows. (2.) None regarding the Rabbit Act. The powers conferred by it are ample. Additional assistance in carrying it out might be necessary during the poisoning season. (3.) Immense; but as yet only a partial victory has been gained. Sufficient escape to restock a district in a short time. Landowners realize the importance of the situation, and second the efforts of the department. (4.) Only ten. (5.) Total cost for the year, £429 18s. 7d. (6.) 258,350 acres, none of which is available for grazing, being either bush or so situated that no one would take it as a gift. (7.) 203lb. (8.) Of Government stock, 300lb. (9.) 574lb. (10.) 345,636; corresponding period last year, 924, 609. (11.) Three civil cases to recover expenses. (12.) No summary proceedings. (13.) None. (14.) Twenty-one. (15.) Four under contract; many private. (16.) 120. The result is beginning to be noticed, young rabbits being less numerous. Ferrets are also increasing. *General Remarks.*—Poisoning is the mainspring of rabbit-extermination. This must be followed up by other expert modes, such as that indicated in answer to query No. 1. It is a great mistake to relax effort after once poisoning, because rabbits are not seen in alarming numbers. It is difficult, however, to instil this idea into the mind of the small landowner, who, perchance, looks upon the rabbit as not an unmixed evil. The ferret, though well distributed, is not in sufficient numbers to make an appreciable impression, and, unaided by other practical means, would be found totally inadequate.

From Rabbit Inspector DOUGLASS, Invercargill.

(1.) Phosphorized grain during winter; throughout the summer trapping, ferreting, dogs, and digging out burrows. On three large properties a considerable quantity of bisulphide of carbon was used, and charcoal fumigators have been found very effectual on several farms and along river-banks, &c. (2.) The Act has given general satisfaction in the district under my charge, and I do not think it can be improved. Wekas should be protected, and, if practicable, sale of cat-skins disallowed. (3.) With very few exceptions, rabbits have been well kept down throughout the district, bush frontages and river-banks being most difficult to manage. In not a single case have the skins paid poisoning expenses, and on several properties they were not picked up, not being numerous enough. (4.) Subsidies given to twelve landowners on account of bush boundaries (one of £50 withheld). (5.) £380. (6.) There are several Native reserves and unsold portions of townships; also railway and bush reserves. None available for grazing. I find two men can keep these fairly clear of rabbits. (7.) 100lb. (8.) None. (9.) 300lb. (10.) Cannot state accurately; about 200,000. (11.) Three. (12.) Three. (13.), (14.) None. (15.) Four, under contract with the Government. Several landowners are breeding and turning out small lots. (16.) 364 on Government account. Nearly all these have been turned out in the back country along main bushes and mountain-sides. It is too soon to tell results. *General Remarks.*—Of the ferrets turned out by me last season there is little doubt that some were trapped over twenty miles distant from place where liberated. On the Waiau hardly a young rabbit was seen till near Christmas. Amongst the farms wild ferrets are getting very numerous, and are, without doubt, doing much good. The very extensive tracts of bush land throughout Wallace and Southland afford great harbour for rabbits, and it will only be by steady perseverance with poisoned grain along the edge of bush and turning out natural enemies, that the pest will be subdued. The results of the last two years' work have been most encouraging.

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