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ally, and bring five young ones each time. Supposing this to happen regularly during the space of four years, and that three of the five young, at each kindle, are females, the increase will be 478,062. Again, Chambers, in their "Information for the People," say, "The rabbit litters seven times in the year, and generally produces eight young at a time. At the age of five months the animal begins to breed, and, taking an estimate perfectly within bounds, it is supposed that a pair of wild rabbits, which breed no oftener than seven times in a year, would multiply in the course of four years to the amazing amount of a million and a quarter, if the young were preserved." If common report be correct, the climate and soil of New Zealand are peculiarly favourable to the domestic habits of rabbits, and they are said to breed at least nine months in each year, having at least six young at each kindle, and the females will breed at the age of three-months. If this be true, then the problem of extermination becomes very difficult of solution.

#### Peculiar Character of Country.

The most important difficulty attending the attempt to arrest or exterminate the rabbit, after that resulting from its fearful fecundity, arises from the peculiar character of the country. The banks of four main rivers—namely, the Mataura, Oreti, Aparima, and Waiau—which intersect the district, together with their tributaries, formed by loose warm sandy loam and gravel, covered with high flax tussocks, and, in some cases, large patches of scrub, afford comfortable warrens in which whole communities of rabbits can find a safe and almost undestructible shelter, to which they can escape when pursued on the plains, and from which nothing but an occasional very high flood can drive them; while, unlike the usual habit of the rabbit in the Home Country, after having worked their way up the river flats into the interior, their most favourite haunts appear to be the heart of the various mountain ranges—forming the watershed of the rivers—in the scrubs, rocks, and forests of which they find secure shelter, and issuing from which in droves, as we have seen them, they devastate the surrounding country, and reduce first-class fattening sheep land to a wilderness.

### Absence of Natural Enemies.

One peculiarity of this colony is the absence of those natural enemies of the rabbit, the presence of which has done so much elsewhere to keep down the nuisance. In Tasmania some of these were valuable auxiliaries, as the weka is near the Waitaki, in Otago; but in the greater portion of Southland the only enemy is the hawk, and that will shortly disappear before the application of strychnine and arsenic. Again, the tax upon dogs is oppressive, and the tax upon powder and shot deterrent.

## Want of Unity and Continuity of Action.

One of the most serious hindrances to success in extermination arises from the absence of unity and continuity of action. There being no compulsion, every leaseholder, freeholder, or occupier does what he likes and when he likes, or does nothing at all. One may be hearty and energetic in his exertions, while his neighbour may be utterly indifferent, breeding, by his inaction, an abundant supply to replenish the cleared run or holding of the former. Interspersed here and there are Crown lands and other lands, such as educational, municipal, and University, &c., reserves, the rabbit nurseries of the whole country. Again, though the Provincial Council recognized the presence of so severe a scourge, they withheld that practical recognition of subsidizing local efforts which it is thought the expediency as well as justice of the case demanded. We append two returns showing the alienated and leased lands in pastoral districts, and the sold and unsold land in Hundreds, which possibly may be found useful in connection with this point, should the subject be deemed worthy of legislation.

### IV .- METHODS AT PRESENT ADOPTED TOWARDS EXTERMINATION.

The methods at present adopted towards the extermination of the rabbits principally consist of hunting them down with dogs on the plains, and shooting and hunting them on the edges of bushes, and in broken ground. There is very little done in the way of trapping, and that, too, confined to the neighbourhood of homesteads. Poisoning in winter has been tried, but the remedy is one of very doubtful propriety, if not decidedly objectionable; for the poisoned rabbit lying exposed affords a ready sustenance to hawks, and those vermin which are the natural enemy of the rabbit. All these efforts combined do not appear to have been attended with any very great success.

# V.—METHODS ADOPTED IN OTHER COLONIES.

#### Victoria.

As regards the steps taken by other colonies to arrest the progress of the rabbit nuisance, a memorandum of March last by the Secretary to the Department of Agriculture in Victoria, obligingly forwarded by the Governor, affords the only information that is available regarding the prevalence of the rabbit nuisance in that colony. From this, it appears that the nuisance has prevailed, more or less, since the first introduction of the rabbit near Geelong many years ago, so that, at the present moment, there is hardly a part of Victoria where it is not to be found. No public steps have been taken to avert the evil, though privately much has been done with varied success. The rapidity with which the rabbit breeds in Victoria bids defiance to the ordinary methods followed in England, of shooting, ferreting, and trapping. Mr. Robertson, of Colac, appears to have been the most successful; but at an expense quite beyond adoption in this colony. Finding that the rabbits had taken possession of numerous wombat holes near Warrion Hill, living in communities, not in families merely, he endeavoured to exterminate them by filling up the holes with basalt boulders; but fruitlessly, for the rabbits burrowed out at the sides, and were as numerous as ever. He then removed the soil until he reached the underlying basaltic rock itself, and built in the rabbits with solid masonry, and not till this was done did he succeed, and then only at the the sacrifice of 10,000 acres of his best land and £35,000 expended during the seven years occupied in the undertaking. The freehold estate is said to amount to 25,000 acres.

#### Tasmania.

The Colony of Tasmania appears to be in many respects, as regards the question under consideration, not unlike that of New Zealand, and may afford us some useful lessons. The evidence taken by the