

PETH + PAM  
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# The RABBIT PLAGUE

IN AUSTRALIA,

AND A

Scheme for its Suppression,

BY

R. J. MURCHISON,

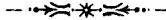
GEORGE ROBERTSON & COMPANY,  
MELBOURNE, SYDNEY, ADELAIDE AND BRISBANE,

1887.

ROBERT BARR, Printer, Fitzroy.

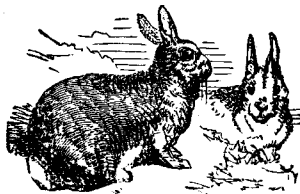


## PREFACE.



I THINK it will be admitted by most people that hitherto no Rabbit Act that has been passed by the Legislatures of any of the colonies has so far carried out the expectations of the framers by coping to any appreciable extent with the Rabbit Plague. Nor has any scheme yet propounded been looked upon with much favor by the public; indeed, a large portion of them are by no means anxious to see the rabbits destroyed. It is to the farmers and the graziers they are the greatest plague, and worst of all, to the poorest and most struggling of these classes. A short time since I was out on the very outskirts of the Wormbete Forrest, and I was told by one man who had been compelled to burn down his brush fences that if the Government persisted in enforcing the present Rabbit Act that he and many others would be obliged to abandon their selections, and yet these men are the very pioneers of settlement, who should be assisted in every way instead of being persecuted. The rabbits still continue to hold their own, and to multiply and spread wherever the nature of the country offers favorable facilities for their increase, and as in Victoria alone there must for many years to come be thousands of acres of waste Crown lands for them to disport in, where they can be little disturbed, there will always be large breeding grounds ready to pour out their surplus stock on the cleared lands wherever the efforts at destruction are relaxed. The present Rabbit Act in Victoria is costing the colony over £30,000 a year, and judging by the results as yet obtained by this expenditure during the last three years,

it may be continued for the next half century, and the rabbits still be to the fore. The costly schemes of fencing at present projected in this colony and New South Wales must of necessity prove failures, when the wonderful fecundity of the Rodent race is taken into consideration, unless immediate and persistent efforts are adopted for their extermination within the enclosed areas. Indeed I have little hopes of fencing checking their inroads even for the shortest time. What is necessary is something that will prove a constant and permanent check upon their increase, and it was the feeling of this want that first gave me the idea of the manner in which ferrets and polecats might be employed to cope with them. What is really required is some scheme that being once initiated will work its own course, and whilst a harmless will still be a constant and inexpensive means of extermination. The scheme I embody in this pamphlet will, I firmly believe, meet all these requirements, and ultimately achieve the end in view. It has already been laid before the Legislatures of the worst infected colonies, but has not met with the approval that I feel sure will some day be accorded to it. At the earnest desire of some of my friends, who believe in it as firmly as I do myself, I have determined to put it before the public in a pamphlet form, in the first instance to give greater publicity to it, and secondly to secure to myself any benefits arising from it, when, as I feel sure will be the case, it is at last adopted as a "Dernier Ressort" by some of the worst infected colonies.



# THE RABBIT PLAGUE IN AUSTRALIA,

## AND A SCHEME FOR ITS SUPPRESSION.



WHILST giving a short history of the rabbit itself, it is of little use entering into an account of its introduction and spread in Australia ; this, as well as the extraordinary plague it has proved, are facts that are known to most people.

The rabbit, as most people are aware, belongs to the Genus "Lepus Cuniculus," which are all represented by animals of the Rodent order, which are the most prolific animals on the earth. The wild, or silver-gray rabbit, is the only one with which I need deal, as although there are many varieties of this animal, the former is the only one that has achieved a distinction as a plague either in ancient or modern times. The common grey rabbit is distinguished from the hare externally by its smaller size and shorter ears and feet. It weighs from  $2\frac{1}{2}$  to 3, and even up to 5lbs. weight. It breeds from four to eight times a year, its period of gestation being about thirty days. It begins to breed at about six months old, and brings forth from 5 to 6 in a litter, and occasionally even 8, and I believe that in the warmer parts of the colony, and under favorable circum-

stances, they breed in all months of the year. A single glance at this short account of them will show at once their wonderful capabilities of increase, and convince the most incredulous that they must be dealt with not only instantly, but continuously. The young rabbit, unlike the hare, which comes into the world fully developed, is born blind and naked, but rapidly acquires its strength and natural covering. At from ten days to a fortnight old it begins to come out of the mouth of the burrow to feed, not for some time venturing far from the hole. The young does generally make a fresh burrow in some secluded spot far away from their accustomed haunts in which to bring forth their young. In this they make a warm nest of grass and fur stripped from their own bodies, and on leaving it in search of food they carefully fill up the mouth of the burrow, covering it with grass, so as almost to defy detection. The foxes are well aware of this habit of the young does, and many is the nest of young they root out, as these burrows seldom extend far under ground. That the rabbit has been a pest to mankind in ancient times, and that the ferret was then used for its destruction, is fully demonstrated by Strabo, who gives the following graphic description of their ravages in Spain, and some of the adjacent Islands of the Mediterranean :—

THE GEOGRAPHY OF SPAIN, BY STRABO.

Vol. I, Page 217.

Speaking of Spain he says :—

Of destructive animals there are very few, with the exception of certain little hares, which burrow in the ground, and are called by some Leberides. These creatures destroy both seeds and trees by gnawing their roots. They are met with throughout nearly the whole of Iberia, infesting likewise the Islands. It is said that formerly the inhabitants of the Gymnesian Islands sent a deputation to the Romans soliciting that a new land might be given them, as they were quite driven out of their country by these animals, being no longer able to stand against their vast multitudes. But for the ordinary increase of these little hares many ways of hunting them

have been devised, amongst others by wild cats from Africa, trained for the purpose. Having muzzled these they turn them into holes, when they either drag out the animals there with their claws or compel them to fly to the surface of the earth, where they are taken by people standing by for that purpose.

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Note.—According to Pliny this deputation was sent to Augustus to demand of him a military force apparently for the purpose of assisting the inhabitants to destroy the rabbits. The same writer has brought together a variety of instances in which cities have been abandoned or destroyed through similar causes.

Advocating as I do the use of the Ferret and the Fomart or Polecat, it may not be amiss to give here a short account of these animals, and also of the weasel, taken from "The Natural History of Quadrupeds," by Thomas Bewick.

### THE FERRET.

The ferret is known to us only in a kind of domestic state it was originally a native of Africa, from whence, according to Strabo, it was introduced into Spaih, and from its known enmity to the rabbit it was made use of to reduce the numbers of them with which that country abounded, but as it cannot bear the severity of a cold climate it cannot subsist without care and shelter. It breeds twice, and sometimes three times a year, and usually brings forth from 5 to 6, and some 7 or 8 in a litter. It is apt to degenerate in this country, and to lose in some degree its ferocity. Warreners are therefore obliged to procure an intercourse between the female and the Fomart. This animal is naturally such an enemy to the rabbit that if a dead rabbit be laid before a young ferret it instantly seizes upon it, although it has never seen any before. When employed in the burrows of the Warren it must be muzzled, that it may not kill the rabbits in the holes.

## THE FOU MART OR POLECAT.

The length of the polecat is about 7 inches, exclusive of the tail, which is about 6 inches long. The shape of the polecat, like others of this genus is long and slender. Its toes are long, and its claws are sharp. It makes great havoc amongst rabbits, and its thirst for blood is so great that it kills many more than it can eat; one or two of them will almost destroy a whole warren. The female brings forth in the summer 5 or 6 at a time. She suckles them but a short time, and early accustoms them to blood and slaughter. The polecat is very fierce and bold, and if attacked by a dog it will defend itself with great spirit, attack in turn, and fasten on the nose of its enemy with so keen a bite as often to oblige him to desist.

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## THE WEASEL.

The length of this animal does not exceed 7 inches from the nose to the tail, which is only 2 inches long, and ends in a point. Its height is not above 2 inches and a half, so that it is nearly four times as long as it is high. The animal is very common, and well known in this country, is very destructive to young birds, poultry and rabbits, and is a keen devourer of eggs, which it sucks with great avidity. The weasel is very useful to the farmer, and is much encouraged by him. During winter it frequents his barns, outhouses and graneries, which it effectually clears of rats and mice. It is indeed a more deadly enemy to these than the cat. It carries all its food to its hiding place, and will not touch it until it begins to putrify.

From the foregoing it will be at once seen that the polecat and ferret are far more deadly enemies to the rabbit than the weasel. Independently of its smaller size, and its partiality for birds and small game, the habit it has of allowing all its food to putrify before touching it shows at once that it is by no means so destructive an animal as the polecat. The cross between the polecat and the ferret is now common enough in this country; indeed I think they predominate over the pure ferret. The polecat is a native

of England, and naturally a very hardy animal, that will stand any vicissitudes of climate, and will live wherever a rabbit can live; when once accustomed to its wild state here, it would soon increase and multiply. I say accustomed to its wild state advisedly, for it must be borne in mind that any animal that has been kept in a domestic state requires a certain time to recover its natural instinct for self-preservation, and to become used to shift entirely for itself. Even the rabbit did not increase very rapidly, until it had become once thoroughly acclimatised. But I have little doubt that by judicious and careful attention for a time both ferrets and polecats could soon be so completely habituated to their wild life that after the second or third generation they would increase almost as rapidly as the rabbits in localities where the latter were plentiful. It is urged by many people that both the ferret and polecat are so subject to foot-rot that they would not live if turned at large. That they are so liable to this disease, also to a kind of distemper, as well as other complaints in their domestic state I will not deny, but to anyone who has been accustomed to see the state of filth and dirt in which the animals are invariably kept by rabbiters, the surprise is not that they are liable to disease, but that they should be able to exist at all. They are naturally very objectionable animals to have to attend to, and are therefore treated with scant consideration in the way of housing and cleanliness.

There are many old squatters in this colony who can remember well when it was no unusual sight to see half a flock of sheep feeding on their knees from the effects of foot-rot when sheep used to be shepherded and folded at night, a disease that has almost disappeared from these colonies since the sheep have been turned at large, as well as catarrh and some other complaints they were liable to in those old days of shepherds and sheepfolds. Others are again averse to the use of the ferret and polecat in the manner proposed by me, from the dread that they might become a pest themselves when the rabbits became scarce. This I have no hesitation in saying, they can never be. They may kill a few poultry kept in an unprotected state, but not to the same extent they are killed at present by the foxes and



these animals which bid fair soon to become a most serious pest (more particularly as along the south coast they are establishing a crossbreed between themselves and the dingo). They will help to keep these in check, as they will kill numbers of the young foxcubs. Lambs they will not touch ; these seem to be an animal entirely outside of their region of slaughter. Snakes I have seen them turn out of the burrows, and I have been informed on the very best authority that they have been seen to kill them ; under any circumstances they are an animal that could be easily poisoned off when the use for them no longer existed. The opinion that many people entertain that they will eat nothing that they do not kill is altogether erroneous as they will refuse no putrid bait when the least pressed by hunger. Although the rabbits may appear now to be much scarcer in many places, and probably they are, it requires only a ride round amongst the farmers particularly where there are any scrublands in the vicinity, and to notice the disheartening way in which the crops are eaten down and in many instances entirely destroyed, to convince anyone that if not as numerous as as ever, they are still a serious and most expensive pest to the colony, and I feel sure that if the present intelligent staff the Government are employing under the present useless Act were made to devote their misspent, and what must be to them unsatisfactory, labours to the development of this scheme, far more encouraging results would soon be apparent. There are no doubt a great many people in these colonies who, though they are aware that the rabbits have been a great plague and are still a great evil, have little or no conception of the awful magnitude of the devastation they committed before any attempts were made to cope with them. Indeed this was not attempted until they had already compassed the ruin of many and bid fair to take possession of the colony altogether and stamp out its human inhabitants. I purpose giving a few statistics gathered from reliable sources, which will tend in some measure to show those who have had no actual experience with the rabbits themselves, what their less fortunate brethren had to go through and indeed, in many instances, are going through now. I will begin by giving a few facts and figures of my

own from which it will be seen that I have had, unfortunately for myself, a terrible experience of the plague. It was about the 10th of January, 1876, that I came down to take possession of a property purchased by me in the Coast Riding of the Shire of Barrabool. I had previously seen or heard but little of the rabbit plague, having been for some years in the eastern parts of Riverina. At this time the rabbits were just beginning to become numerous on the property, but had not then to any serious extent interfered with the feed which was looking splendid, especially one paddock of about three hundred acres all laid down in English rye grass. I was able at this time to graze without difficulty from 4,500 to 5,000 sheep on the estate of 7,000 acres, but two years afterwards there was scarcely a blade of grass left upon the property; the artificial grass was so entirely killed out and the whole estate was reduced to such a desert that it was a struggle for existence between the rabbits and the miserable remnant of 1,500 sheep left alive; indeed the rabbits were then barking all the scrub on the property and also on the Crown Lands attached to obtain a subsistence. Of course this could not last long and the weakest, viz, the poor sheep, had to go to the wall. I am writing now of what took place some seven years ago, and though the rabbits by the persistent efforts to destroy them have been greatly decreased, the legacy they have left behind them is a barren desert all along the coast, and where there was once grass there is nothing now but the coarsest kind of herbage quite unfit for stock to eat, and could the rabbits be all cleared out of the Coast Riding of the Shire of Barrabool to-morrow, the next ten years would still bear witness to their ravages in a weakened and deteriorated sward of grass. For nearly six months I paid weekly for over 5,000 rabbits caught within a radius of half-a-mile of the homestead, and the same year for over 150,000 trapped and shot upon the entire property, without making the smallest appreciable difference in their numbers. The poisoning after this for a while killed them off rapidly, but when once their number was sufficiently diminished to allow of a spring in the grass they would not touch the poisoned grain.

Dr. Cree in writing to the *Sydney Morning Herald* esti-

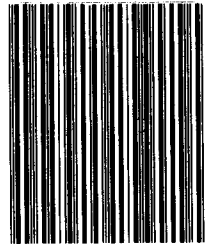
mated the loss caused by rabbits in New Zealand, Tasmania and Australia in the year 1884 at £2,800,000. At the Intercolonial Stock Conference lately held in Sydney, Mr. Lance assessed the cost of the rabbit plague to New Zealand at half-a-million a-year while Mr. McKenzie added that where the rabbits were numerous the carrying capacity of the land was reduced by one-third, the weight of the fleece was decreased by 1lb. to 1½lbs, lambing decreased 30 or 40 per cent. and the death rate was increased from 3 and 6 per cent. up to 10 and 13 per cent. Mr. Tabbart said that in Tasmania for the last six years the number of sheep had decreased 250,000 and the lambing percentage had fallen from 75, 79, and 80 per cent. to 50 and 60 per cent. Mr. Bagot estimated that in South Australia the rabbits had invaded 40,000 square miles. The Rabbit Act has now been in force for nearly three years in Victoria and brush fences have been burnt, burrows dug out, poisoned grain scattered wholesale on the crown lands where it is rotting still. Hardworking, struggling, pioneer settlers have been heavily fined, and have the rabbits been exterminated yet? I unhesitatingly say no! and that such a happy consummation is as far off apparently as ever, and though not the serious plague they were, their numbers are still sufficient to cause serious loss. In this part of the colony—the south coast—the rabbits have fairly held their own all through the recent war waged against them, and at the present time are increasing at a most alarming rate. I know of one man in this district who is at present offering two shillings per dozen to have them destroyed on his property, and there are many others who are suffering from them quite as badly as him. There are hundreds of young rabbits to be seen everywhere in this part of the colony now, showing beyond a doubt that the plague is only scotched not killed, and would be as bad as ever in a short time were the efforts at destruction relaxed ever so little, and how long is this costly Act to remain in force? Is the colony to be taxed for years to come at the rate of some £30,000 a-year merely to have the rabbits kept partially down, when with half the yearly cost expended for a few years only they might be put down for ever? The Government were told in a recent

report (I quote from the *Argus*) that the rabbits are decreasing in all parts of the colony and apparently from some disease. I do not hesitate to say that it is not true of this part of the colony at least. Here they are again increasing rapidly and finer and healthier rabbits are not to be seen.

Before closing the subject I must again revert to the extraordinary craze that has taken possession of some people with regard to fencing off the rabbits. A fence to be some hundreds of miles in length has already been commenced in New South Wales with the intention of fencing off all the infested parts of the colony from the non-infested. How any man who knows anything of the rabbits can lend himself for a moment to such an insane and preposterous waste of the public money is beyond my comprehension. The best I can hope for it is that the scheme has been initiated by men who have had no experience of the rabbit plague. Sydney Smith tells us that "during an exceptionally high tide in the Atlantic that energetic old lady Mrs. Partington was found mop in hand vainly endeavouring to repel the advancing waves as they rolled in at her cottage door. The Atlantic was in flood, Mrs. Partington was roused, but I need scarcely add," says Sydney Smith, "Mrs. Partington was beaten." And anyone who has seen the rabbit plague at its worst may well look on in wonder and amazement, and compare the gigantic efforts of these would be rabbit stoppers with those of the venerable old lady I have mentioned, something of a like kind in the way of fencing is about being commenced by the Victorian Government and I venture to say that in a few years to come these fences will be lying rotting on the ground as mementos of the folly of those who erected them. If the rabbits could cross the Murray in sufficient numbers to defy their natural enemies how can a fence be expected to restrain them. They will find their way under it, over it, and through it, for in spite of all efforts it will be constantly broken down, and they will be found on the other side in thousands though no one will know how they came there. A gentleman speaking at Bourke admits that one pair of rabbits will in two and a half years will amount to 2 000,000 and he is under the mark. Granted this, and the fact that few will deny

that in the course of the year a few dozen pair of rabbits will find their way in some manner through the hundreds of miles of fencing, and say that a dozen pair only escape, add up their twelve months' progeny and you have the rabbit plague well established on both sides of the fence at once.

One advantage possessed by my scheme is that it might be tried on a small scale first by fencing off say about five or ten thousand acres of Crown Lands. This would not cost much to enclose with netting, and if the ferrets or polecats, or better both were judiciously let at large in this enclosure, it would prove the worth of my scheme in a very short time, which if successful here would be the same on a larger scale. And I do not hesitate to assert that were the Government of this colony to initiate this scheme under the present efficient staff administering the present Rabbit Act, Victoria would in a few years be comparatively free from the pest.



MR. MURCHINSON'S SCHEME FOR THE SUP-  
PRESSION OF THE RABBIT PLAGUE.

*Submitted to the Rabbit Conference, Sydney, 1885.*

1ST.—THE FEATURES IN WHICH THE PAST AND PRESENT  
ACTS ARE DEFICIENT.

In the first place it has been quite impossible under the former Act, and will be equally so under the present, to secure unanimity of action. If this could be done there are thousands of acres of scrub land, particularly on Crown Lands, where it is utterly impossible to get at the rabbits, either by trapping or poison; poison will only be taken by the rabbits where there is no grass for them to eat. As soon as their numbers are so decreased by poisoning that the grass grows the poison is neglected by them; and further, no matter how much their numbers may be decreased under the present Act the moment action is relaxed in any district their numbers rapidly increase again.

2ND.—THE MEANS PROPOSED TO BE EMPLOYED UNDER THE  
PRESENT SCHEME.

To attack them by means of their natural enemies—the ferret and the pole-cat.

3RD.—IN WHAT WAY TO BE EMPLOYED.

That the Government should take the matter entirely in their own hands; should in the first place buy up at a fixed price all the ferrets in the Colony, also importing as many as can be procured from England and the Continent. That depôts should be formed (say) one at least in each shire, and put under the charge of competent persons; that in these depôts ferrets should be bred in large numbers, as well as the imported ferrets received.

4TH.—PROTECTION FOR THE FERRETS.

That previous to anything else being done an Act should be passed by the Legislature prohibiting the keeping of any ferrets by others than those duly authorised by the Government, and that a heavy penalty should be inflicted for the destruction of a ferret or any rabbit-destroying animal.

## 5TH.—THE GENERAL MANAGEMENT OF THE SCHEME.

The breeding establishments being once formed, that the ferrets should be let out (always keeping sufficient numbers in the depôt to ensure a large supply whenever required) under the supervision of men who have a thorough knowledge of the ferret and its habits, choosing those places always where the rabbits are most numerous; that there should be a manager for each shire or depôt, independent of the person in charge of the breeding—under whose supervision the latter should be—all to be under one general manager, responsible to the Government alone.

## 6TH.—REMARKS ON THE BREEDING AND THE MANAGEMENT OF THE FERRET.

The ferret under proper supervision is a very prolific animal, averaging six or seven at a litter; and having two litters in the year, the young of the first litter breeding the same year. Their natural food is the rabbit, so that under the charge of competent men there would be no difficulty in supplying the depôts with food for any number of ferrets. Of course great judgment and care would have to be exercised in keeping the bucks and females apart; also the young ferrets up to a certain age.

## 7TH.—GENERAL REMARKS.

It is an opinion held by many that the English ferret will not live in a wild state, an idea fostered and kept alive to a great extent in these Colonies by old rabbit-trappers, who fear always that they should gain a footing in the Colony, knowing that if they once did their avocation would be gone. The ferret will live and thrive in this country in a wild state at all times of the year, and the ferret when crossed with the pole-cat produces a hardier and more active and much more bloodthirsty animal. I have frequently found ferrets that I had lost in all seasons of the year, sometimes six months and even two years afterwards, fat and sleek. Care and judgment would have to be exercised in patting out the ferrets; the does should be set at liberty (just before bringing forth their litters) in warm, comfortable localities, and the bucks should not for some time be let loose in the same places. The ferret and pole-

cat are the natural enemies of the rabbit, and kill for sport as well as for food. So fierce and determined do some of them become that I have known them turn foxes out of the warren or large wombat holes, and they will greedily destroy the young fox cubs.

When ferrets are turned into a rabbit warren in the breeding season the destruction they make among the young rabbits is prodigious, never willingly leaving one alive in the holes; indeed it is in the havoc they would make amongst the young ones that they would exercise the most potent influence in keeping down the plague, and it must always be remembered that when they once gain a footing, which under this plan they would soon do, they are a power always at work, and without further cost or trouble, whereas any other means require to be constantly kept up without a moment's relaxation at great trouble and expense. There are parts of this Colony (Victoria) from which the rabbits will be far more difficult to exterminate than in the mallee. For instance, parts of the Cape Otway Ranges, where there are thousands of acres of scrub land, through which a horseman cannot ride, and where even on foot there is the greatest difficulty in forcing a passage. Yet this country is teeming alive with rabbits, and could they be exterminated elsewhere, would form a breeding-ground sufficient to stock the whole of Victoria in a twelve-month. Again the whole coast line of the southern ocean, from Queenscliff to the South Australian Border is alive with rabbits, who find splendid burrowing ground in the cliffs and sand hummocks, and a dense undergrowth of scrub to protect them. Through all this country the ferrets would slowly and surely pursue them, killing the young rabbits and preventing the fear of them spreading to more favoured places. I know of no enemy the ferret has in the colony, unless it might be the eagle-hawk, and I scarcely think they would kill many. There would have been far less rabbits in these colonies had the enemies they already have here been properly protected, viz., the native cat, tiger cat, and domestic cat, all of which, the latter particularly, are destroyed and killed off wholesale by the trappers, and also by poisoning. I have myself found seven or eight native



cats dead round a bait put out for eagle-hawks. I have little hesitation in saying that if this scheme were adopted and properly supervised that in five years the rabbits would be so reduced as never to be a plague again.

PROBABLE COST TO THE COUNTRY.

	£
1st year—Establishment of 25 depôts ... ..	2,500
Salaries of breeders and managers of depôts, at £80 per annum ... ..	2,000
Cost of ferrets in Colony (say) 1,000 at 8s. each ...	400
Cost and importation of 3,000 ferrets ... ..	1,500
Salaries of managers for each depôt district, at £200 per annum ... ..	5,000
Salary of general manager ... ..	1,000
Incidental expenses ... ..	1,500
	<hr/>
Total cost for 1st year .. ..	£13,900
For each succeeding year, £9,500.	

This would admit the 1st year of 3,000 ferrets being turned loose; 5,000 the second year; and 10,000 each in the 3rd, 4th, and 5th years.

Probable number of ferrets at large at the end of 5th year, 500,000. These would kill annually (allowing one rabbit a day to each ferret) 182,500,000 rabbits.

R. MURCHISON,

Jan Juc, near Geelong.

Mr. Strachan, for report.—T. H. MYRING, B.C., 7/4/85. This scheme might work the result the projector calculates if the ferrets could be as easily propogated as represented. My experience has been that ferrets will not live in this climate without great care, numbers having succumbed during the summer, and especially when hot winds were blowing. The scheme however, has, I think, reason in it, and if ferrets could at once be bred in such numbers as would be required *might* produce the estimated result. —J.S., B.C., 14 | 5 | 85