

operation. The result is indicated in the following extract from a report by Assistant-Veterinary-Surgeon Shepherd:—

“It has been freely stated that it is impossible to give rinderpest to an animal by injecting rinderpest gall. There have been over 50,000 cattle inoculated in this district by the Koch method, and, as far as my information goes, the disease appeared on every farm with but two or three exceptions about eight days after inoculation.” This experience was by no means exceptional, and, indeed, nothing is more clearly proved by Mr Hutcheon's report than that the bile method of inoculation is not a means of warding off an invasion of rinderpest, but rather a method of spreading the disease. This is an illustration of how a laboratory method, theoretically perfect, may break down when it is applied practically on a large scale.

Needless to say, in face of such results, the bile method had to be generally abandoned, and Mr Hutcheon's report enables one to follow the various other methods—inoculation with antitoxic serum, inoculation with defibrinated blood, infection with virulent blood followed by injection of antitoxic serum, etc.—which have been in succession adopted. It is clear from South African experience that none of these are methods of stamping out or prevention in the proper sense of the word. They might much more correctly be described as methods of spreading the conflagration and of controlling the resulting new fires.

It is well to note this, while recognising that the methods lately pursued in South Africa have saved the lives of thousands of cattle there. Stamping out in that part of the world appears to have been impossible, and other measures had to be employed, but no greater mistake could be made than to suppose that the South African experience points a new way of dealing with rinderpest should it again appear in Western Europe. As Mr Hutcheon observes, “the only possible security against the infection of rinderpest being carried is to leave no infection to carry.” Should it ever again be landed on our shores, the pole-axe and not the hypodermic syringe is the instrument with which it must be opposed.

CLINICAL ARTICLES.

NOTES ON SCABIES IN FIELD RABBITS.

By A. M. TROTTER, M.R.C.V.S., Glasgow.

THE following notes on scabies in field rabbits may prove interesting.

This disease has been prevalent for many years on several estates in the vicinity of Glasgow, causing a large annual mortality. Many theories have been promulgated as to the causation of this plague; of these, in-and-in-breeding, overstocking, and dirty pastures have appealed most to the initiated. An attempt was made by one proprietor some years ago to eradicate it by introducing a number of tame rabbits, but the effort proved abortive. In another instance, acting on the assumption that overstocking was the cause, slaughter was resorted to, but this proved equally unsuccessful.

Rabbits of all ages may be found affected. Gerlach has never seen it extend beyond the face, but Railliet records instances where it has spread to the neck, the lower half of the auricular concha, the fore-legs to the elbow and the hind legs to the hock. In this outbreak

no portion of the body was exempt from its invasion. Commencing, as a rule, in the region of the head or the pubes, it gradually spread and involved the adjacent tissues. In very advanced cases, head, outer surface of the auricular concha, neck, legs below elbow and hock, pubes, and body, were frequently found affected in the same subject to such a degree that prehension, respiration, vision, and locomotion were more or less interfered with. When thus affected it was associated with extreme emaciation. In the early stages the hair of the invaded part falls off, and close examination reveals a thin crust, which gradually increases in thickness as the disease progresses. These crusts are of a dirty greyish colour, and their surface is intersected by deep fissures. On manipulation they are found to be dense and pultaceous in character, and can only be removed with difficulty, exposing a raw bleeding surface. If a small quantity from the deeper part of the crust be taken, macerated in methylated spirits for a short time, and examined under a low power of the microscope, numerous acari are seen along with their excrement, ova, hair, and epidermic cells. There is nothing of note to be recorded regarding the parasites, which belong to the variety known as *sarcoptes minor*, var. *cuniculi*.

Gerlach affirmed that the sarcopt of the rabbit would not live on any of the domestic animals, not even on the cat.

SEPARATION OF UPPER EPIPHYSES OF BOTH HUMERI IN A MARE.

By H. THACKERAY, Student, Royal Veterinary College, London.

THIS remarkable case occurred in Messrs Hurrell's practice at Southminster in the spring of this year, the subject being a three-year-old cart mare.

The animal had been in the possession of the owner, a small farmer, for about ten days, having been bought by him from a travelling hawker, so that her previous history could not be ascertained. She was apparently quite sound, and since her purchase had been worked regularly at light ploughing and harrowing. She did her work well, and never evinced any sign of lameness. On the day that this happened she was turned out in a small croft adjoining the farm buildings, and at mid-day was seen by the waggoner to be quietly feeding; half an hour afterwards she was found down in the middle of the croft, and all attempts to get her up were fruitless.

Messrs Hurrell were sent for, and on arriving the mare was found to be lying on her near side. There were no external signs of injury beyond considerable swelling at the point of the shoulder, but examination and manipulation revealed an apparent fracture of the upper end of the right humerus. She was put on a gate, and dragged into an open shed where it was proposed to sling her, but on turning her over it was found that an exactly similar state of affairs existed on the near side, and there was an apparent fracture of the upper end of the left humerus also.