

neither more nor less than the *post-mortem* diagnosis of disease, and when it does not conform to that definition it is not rational. It follows, therefore, that the veterinary surgeon is by his training marked out as the only competent person to supervise the inspection of meat, and the general recognition of this fact would not only tend to prevent any conflict between members of the two professions, but would also work to the public advantage.

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## CLINICAL ARTICLES.

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### REMARKS ON BLACK-QUARTER.

By THOMAS BUTCHER, M.R.C.V.S., Cleobury Mortimer, Salop.

THE interest which has recently been excited regarding the methods of treating or preventing this disease induces me to send the following notes of my experience of it.

It is particularly prevalent in this district, in which it is known to farmers and others under the name of "Ierns," or "Hyerns." I can offer no explanation of the origin of the term.

The disease is met with at all times of the year, but it is most prevalent in late autumn and winter, and again in spring, especially after a succession of frosty nights.

The proportion of deaths on some farms is most serious, ranging from 15 to as high as 50 per cent. of the young stock. On several farms during the past winter half the young stock have died from it, and in one instance the disease struck seven out of twelve animals. These animals were well-bred Herefords, feeding on swedes and hay. On another farm three yearlings were attacked within thirty-six hours; and, while in one of these the disease took the usual course, with the formation of the well-known swelling in one hind-quarter, the other two presented no external lesion, but had severe double pleurisy.

As the character of the soil has been supposed to have something to do with the frequency of the disease, I may state that in this district it is chiefly clayey, but on the higher ground it is light and sandy. I may add, however, that I have seen the disease among animals that were being fed exclusively on swedes and cake, and which had never been out at pasture. The majority of the animals attacked are yearlings (9-15 months old), but it is by no means uncommon to see two-year-olds and even three-year-olds die from black-quarter, and I have seen one case in an animal that was four years old. This was a cow that had had two calves and which died from a well developed attack when tied up.

Death usually occurs within twenty-four or thirty-six hours after the first symptoms are noticed, and during their illness animals rarely eat or drink. I have seen a case, however, in which the disease lasted for five days. This was a four-months-old calf, and during the first two

days of its illness it took its milk night and morning and ate a little hay. The disease was confined to one hind quarter, and the emphysematous crackling was distinct from the first day. No treatment was adopted, and the calf was destroyed on the fifth day. I have since regretted that no attempt was made to save this animal's life, but I may here say that I never saw a case recover. Nearly all farmers in the district are well acquainted with the disease, and able to recognise it both *ante* and *post-mortem*; and save in exceptional cases they do not call in veterinary aid, the disease being regarded as hopeless. When I first commenced practice I tried a great variety of methods of treatment, but with no appreciable benefit.

I have during the past six years setoned some hundreds of animals as a preventative, sometimes combining this with the administration of such medicines as chlorate of potash and hyposulphite of soda; and I have been forced to the conclusion that all these methods of treatment are unreliable and unsatisfactory, and of late I have entirely discarded them.

In this neighbourhood there is a widely prevalent opinion that pregnancy confers some protection, and many heifers are on that account put very early to the bull. My experience has shown, however, that this belief is erroneous, as I have repeatedly seen two-year-old heifers attacked while in calf.

Although on many farms a number of deaths occur every year, I know instances in which the disease disappeared entirely for a year or two and then suddenly reappeared. On other farms where the disease was formerly prevalent no case has occurred within the last ten years, although the number of calves reared and the manner of rearing them remain as before and no preventative treatment has been adopted.

It is a very commonly accepted view that thriving animals are specially predisposed to the disease, but I know some stock-owners who hold a precisely contrary opinion, and believe that the disease has been less common since they feed liberally and allow the calves cake as soon as they can eat. One farmer about nine years since lost three animals in one night, and this he ascribed to the fact that he had neglected to allow them cake. Since that time cake has always been given, and he has not lost a case during the nine years.

I know one small farm on which there has been one and only one case of black-quarter during the last thirty years (four years ago), although the farm has had the same tenant during the whole of that period, and there were no special circumstances in operation at the time to account for the appearance of the disease.

Another farm of about 600 acres, on which 30-40 calves are reared annually, is singularly free from the disease notwithstanding that nearly all the other farms in the same parish are more or less subject, the immediately adjoining farm being one of the worst in that respect that I know.

Instances of the erratic nature of the disease might be greatly multiplied, but enough has been said to show that, although it is now generally accepted that the disease is caused by a microbe, there are many points connected with the etiology of the disease that are still very obscure.

I have already expressed my opinion, based on considerable

experience, that the methods of treatment hitherto in general use in this country are not to be relied upon, but I entertain the hope that inoculation will prove more trustworthy.

## AN OUTBREAK OF ANTHRAX.

### FOREIGN BODY IN THE HEART.

By B. P. J. MAHONY, M.R.C.V.S., Maryborough, Ireland.

A messenger arrived early on the morning of the 14th February, requesting me to go at once to attend a valuable cow that had been taken suddenly ill on the night previous. On my way I called at the owner's house, and he accompanied me to the farm. Whilst driving thither he informed me he had lost another cow a few days previously, and that this sudden illness of a second one led him to think the water was bad. In support of this opinion he mentioned that in the yard he had a pump which was surrounded by manure, and he suspected that drainage from the manure must have taken place into the well. I at once suspected anthrax, and told him I feared we would not find the animal alive. This proved only too true, for on our arrival we found it dead and opened. On examining the viscera, I was struck with the large size of the spleen, which left no doubt that the disease was anthrax. I may mention that part of the spleen was forwarded to Professor M'Fadyean, and that he confirmed the diagnosis.

When I told the owner the nature of the disease, he informed me there was a calf a fortnight old rearing on the cow, and he asked how it was that it had not died. I replied that in all probability it would, and this opinion was borne out, for it died soon afterwards.

The cattleman informed me that a number of short-horn bulls that were being fed in boxes were not quite well, and I found that these animals were being fed with partially rotten mangolds. The symptoms of illness in these animals disappeared after the administration of a dose of purgative medicine.

I next inspected the herd of cows (16) to which the two animals already dead had belonged, and I detected in the general appearance of one of them something that led me to suspect that she was not all right. The cattleman informed me that she had fed as usual that morning, but not feeling satisfied I had her caught and took her temperature which I found to be 106° F. The pulse also was very frequent, and I expressed the opinion that the cow was already affected with anthrax. A few days afterwards I learned that she was dead. No cases have since occurred in the herd.

Whilst attending a thoroughbred colt at a gentleman's residence in the County Kildare, my attention was called to the heart of a bullock which had died the day previous. Being struck with the appearance of it, I inquired into the animal's previous history, which I found to be as follows. He was bought in December 1889, did fairly well last summer, was put into the stalls to fatten about the middle of