

ged in the Rinderpest are developed. In 1857 several reports reached me of cases of that kind; a gentleman in Dumfriesshire lost six oxen, which the stomachs were so affected. Several recovered, but as I only saw one of them which recovered, and soon got well, and as notes the *post mortem* examinations had not been made, I can only form an opinion in that case the state I found the one which was convalescent.

Mr. McCall, veterinary surgeon, when at the time in July last, wrote to me an account of a case of an analogous disease which tended to show the spontaneous nature of the Rinderpest. He says: "On the 9th I was called to a cow belonging to Mr. Weir, Meadowbank, Darnodale, which had been ill for three days. The symptoms were a staring coat, back well, extremities cold, drawn under the body; head all but imperceptible; head and neck well and drawn back, and a little to the left; apparent paralysis of the optic nerves; *twitching of the muscles*, more especially of the head; general trembling of the whole body; tongue hanging from the side of the mouth, but paralysed; throat and lips in constant motion; mouth full of foam. The animal stands in the same spot, occasionally moves the head but is unconscious; bowels irregular, faeces coloured and voided in small quantities, smell inoffensive. On the following day the animal was down, unable to move; head drawn to the side, trembling and *twitching* of the legs; unconscious; faeces fluid, dark-coloured, and slightly offensive in smell: died that day."

*Post mortem* examination showed the contents of the stomach pulpy. In the two first, ingesta, but the other too full; in the third, here and there red congested patches, and ulceration. Gall bladder distended; viscera healthy. On the 15th July, at the same place, a second cow was attacked; respiratory; *wild look*; *staggering gait*; secretions of milk gone; faeces fluid, and dark colored; did not ruminate; pain on pressure on the abdomen; pulse sixty, and weak; died on the 17th.

*Post mortem* appearances the same as the first, but contents of the omasum hard. A case at the same place recovered from treatment adopted.

A fourth case occurred at Ardurmain, near Ardeer. Cow milked at 7 A.M., but gave and appeared giddy and moaning a little, and was sent to the field with the others. At 10 o'clock was observed to be pushing with her quarters against the hedge, bellowing and grunting at the mouth. She was taken with difficulty to a straw shed; saw her within half an hour her hind-quarters were pressed back against the corner of the shed; back arched; head down, and thrown back towards the back; shivering and trembling; *twitching of the muscles of the face and anterior extremities*; coat staring; apparent paralysis of the optic nerves; bellowing, and foaming at the mouth; died in half-an-hour. *Post mor-*

*tem*: lungs slightly congested; stomach, with the exception of the third, healthy. But between the layers of the many plies the contents were hard and dry, and so firmly glued to the coats, that most of the mucous membrane came off attached to the caked food, and the rest left the impression of the papillary surface on the dried matter. Brain healthy, and not presenting the slightest trace of inflammation.

"Other two cases occurred next morning early, with the same symptoms, but much mitigated, and they recovered under treatment in a few days. Another case occurred at a farm belonging to Mr. Howie, Kilwinning. Cow had been off her feeding for two days; had little passage in her bowels, and was bled; pulse forty-five, regular, but languid; grunting; extremities cold; coat staring; abdomen rather tympanitic, and pain with pressure; bowels constipated; was sent for six hours afterwards; found her bellowing, foaming at the mouth, blind, trembling, *twitching* of the facial muscles, and indeed all the muscles of the body, but more especially those of the fore extremities: head drawn back; hind-quarters pressed hard against the corner of the barn, into which she had been put. The whole body at times was in violent motion. She died in about an hour afterwards, and the *post mortem* appearance was found the same as those already described."

In what has been called Fardel-bound, the symptoms of the affection of the head seldom occur, but diarrhoea always ensues. Such cases as those related occur in many parts of the country during autumn, and appeared to arise from the dryness of the season, causing a want of water and a withered woody condition of the herbage—a condition which very probably existed where the Rinderpest prevailed, but of which, whether or not it did exist, we have no proper account. This condition of the herbage during last summer gave rise in many situations to what is commonly called stomach staggers in farm-horses. Now, if we look back to the description of the cases as given in Professor Simond's paper, and in the letter I have quoted, it will be seen that the most prominent symptoms are trembling of the body and *twitching* of the muscles. These are also prominent symptoms in Mr. McCall's cases. The animals stood with back arched and legs under the body; the head extended, the coat staring: remarkable dullness, and indisposition to move. All these symptoms are also found in Mr. McCall's cases. The eyes are somewhat intolerant of light, and afterwards were closed, and the animals were in a state of drowsiness. In the cases at Irvine the eyes became insensible to light; both cases, therefore, showing an affection of the brain, which was also manifested by the animals countenance "being more animated than is generally seen." In those cases related by Mr. McCall the excitement of the brain is only a more prominent symptom, but which, by the