

those in Ontario. As, however, our probabilities are made out at 10 a. m., Toronto time, which is a little after 11 Halifax time. I fear that they have proved of little service in Nova Scotia, and that they have accordingly attracted but little attention there. To obviate this difficulty, the probabilities should be issued at midnight, but unfortunately insufficiency of funds has hitherto prevented my doing this. In Ontario the Provincial Government supplements the work done by the Dominion in the collecting of weather statistics, by having a full set of observations taken three times a day at nine high schools, under the Act of 16 Vic., art. 186, sec. 16. By a subsequent arrangement, all these high schools report direct to me, and they are not paid until I have furnished a certificate to the Department of Education of Ontario that the observations have been regularly and satisfactorily taken. In addition to this the Bureau of Industries of Ontario provide observers at a number of stations scattered over Ontario for taking observations of rain-fall, which number will shortly be very much increased. These likewise report direct to me, and in order to insure reliability of the instruments used, they are all furnished from this office. All other expenses, however, are borne by the Provincial Government.

I enclose you a copy of the Agricultural report of the Ontario Bureau of Industries for May last.

I shall be happy to do anything in my power to increase the usefulness of the Meteorological Service to the people of Nova Scotia.

I am, yours, &c.,
CHARLES CARPMAEL,
Superintendent nt.

N. B.—The report will follow.

[Extracts will be given in our next number.]

HISTORY OF THE PICTOU CATTLE DISEASE.

No. I.

A local disease affecting horned cattle has been known for many years in and around the town of Pictou, in this Province. Although long and familiarly known to residents of the locality, it is only of recent years that it has attracted attention at a distance. The immense losses sustained in European countries by contagious cattle diseases, and the strenuous efforts made by Governments throughout the world to stamp out such diseases where they have gained a footing, and to prevent their spread into new territory, have led to careful scrutiny wherever cases of illness in cattle have occurred, even where they were not of contagious na-

ture. It thus became necessary in the interest of other countries as well as our own that a searching investigation should be made of the Pictou Cattle Disease, with the view of ascertaining its precise nature, and the remedies that might be adopted for accomplishing its extinction, or at least mitigating its effects in the affected locality and preventing its spread. We intend to give, in a monthly series of articles, a complete history of the disease, and of the efforts made to reduce and exterminate it. To-day we begin by publishing the report made by Dr. Thayer to the Treasury Department at Washington, U. S. A. :—

DR. THAYER'S REPORT ON CATTLE DISEASE IN PICTOU, NOVA SCOTIA.

West Newton, August, 1880.

SIR,—Your letter dated July 14th, with a copy of a dispatch received from the Consul-General of Halifax, also a dispatch from the Consul at Pictou, reporting the re-appearance of a contagious cattle disease, was received on the 16th. In compliance with your instructions I left Boston for Halifax on the 17th, arriving there at 10 a. m. the 21st inst. I at once called at the office of Consul-General Jackson, who informed me that he had not received any further information in relation to the disease in Pictou County since the date of his communication to the department at Washington. I then left Halifax for Pictou, arriving there at 1.15 p. m. The Consul, Oscar Malmros, met me at the landing and accompanied me to the hotel, where we met the Chairman of the Board of Agriculture and several others interested in the subject, among whom was one who had suffered severely from the disease. His statement is substantially as follows:

One of his neighbor's cattle were sick; a cow affected with the disease became delirious, escaped, and ran upon the highway and died near the premises. The body was allowed to remain there until putrefication took place. In a short time his cattle became sick and all died, and he ascribes the cause of the sickness in his herd to exposure to the exhalations from the putrifying body of the dead cow. This occurred about sixteen years ago, and the disease has prevailed in that locality to the present time.

On Saturday, the 23d, in company with the Chairman of the Board of Agriculture, we visited several infected farms. The first animal examined was reported sick this morning. She was standing quietly, the eyes appeared dull, the coat (hair) had an unthrifty appearance, the respiration was normal, pulse 60, temperature 101° Fabr., the discharges from the bowels rather soft, little or no appetite, and the secretion of milk very much diminished. It was stated that the milk had a very offensive odor, resembling the smell of excrement mixed with milk, but I was unable to detect it. The symptoms were those often seen in practice, and where the diagnosis would be functional derangement of the digestive organs.

The next animal examined was a cow belonging to a Mr. Desmond, whose farm was a mile distant from the above. The animal was standing with disinclination to move, the eyes dull, the coat standing, the muscles of the hind quarters trembling, respiration

normal, pulse 80, temperature 105° Fabr. Auscultation and percussion of the thorax gave no evidence of pulmonary disease. Percussion of the abdomen denoted the existence of a large quantity of fluid. There was diarrhoea, the stools being nearly black in color. Several other farms were visited, the owners of which had suffered from the loss of cattle by the disease in question.

The description given by one is given in general terms by all, viz: the animal is dull, the coat staring, loss of appetite, secretion of milk diminished, in five or six days diarrhoea sets in—in a few cases extreme constipation—and in two or three weeks death.

In the afternoon, visited the residence of Donald Grant, Warden of New Glasgow—the cow had been ill five days. Examination: Pulse and temperature normal, respiration quiet, diarrhoea present, stools black, and the secretion of milk diminished.

Monday, 25th, again examined Desmond's cow; but little change had taken place; the temperature was elevated two-fifths of a degree. A telegram from Dr. McEachran stating that he would arrive on the noon train was received, and further examination was postponed. In the afternoon, in company with him, the Chairman of the Board of Agriculture, and several physicians, we proceeded to Mr. Desmond's, where the same cow was examined by Dr. McEachran; her condition remained about the same. Blood was taken from the jugular vein and subjected to microscopic examination with 350 diameters. Nothing was found, but afterwards, under 600 diameters, objects (bacteria) were discovered. The animal was then killed by a blow on the head and bleeding; the thoracic viscera were healthy with the exception of a slight pleuritic adhesion, the result of a former pleurisy, the brain was normal, the pleura was quite pale. On opening the abdomen a large quantity of serum, estimated at more than five gallons, escaped; the same pale appearance of the serous membrane was found as was seen in the pleura. The organs were removed separately and examined. The spleen was firm and weighed one pound eight ounces. The liver was of average size and firm. The gall-bladder was enlarged and distended with bile; a portion of the latter was dark, (the butcher stated that he had seen the gall-bladder twice as large, and filled with something as black as tar and as thick as molasses.) The whole digestive tract was laid open and examined, but no trace of disease could be found. The kidneys and bladder were healthy.

Tuesday, 26th, went to Merigomish, eight miles from New Glasgow, where we examined a cow belonging to James Grant. The animal was emaciated; had been sick several weeks. It had the same general appearance as before described. The temperature 104° 2. Pulse not taken, as she had just been driven from the pasture. I would here remark that the pulse in all the cases examined was compressible, not the wiry pulse of inflammatory diseases of serous membrane. This cow was killed in the same manner as that belonging to Mr. Desmond. The brain and a portion of the spinal cord were removed and found to be healthy. The thoracic and abdominal viscera were the same as in Desmond's case, except that in Grant's case the spleen was eight ounces heavier, and there was about one-third less serum in the abdomen.