

covered with tubercles, and in a state of sub-acute inflammation. All the abdominal organs were more or less affected, also the milk-bag, which contained several large deposits, some of which were calcified, and others softened and in a semi-purulent state. All of the glands throughout the body were enlarged, and in places degenerated.

“ Many of the diseased animals remained in the herd for several weeks, when the herd was again examined by myself. I found that those that only a few weeks previous were considered doubtful had now developed positive symptoms of the disease, and still others were found that seemed quite suspicious. The bull, a full blooded Holstein, at this time appeared to be failing in flesh, but manifested no positive symptoms.

“ On May 22nd and 23rd, twenty-eight of the most advanced cases were killed. On examination all were found affected, but not all to the same degree. The organs principally affected were the serous membranes, the lungs, liver, bowels, and the milk-bag in many cases. A number of them were affected to an equally great degree as the two cases already reported. Examination was again made of the herd on June 10th, and others were found manifesting the usual symptoms: the bull was again examined and it was very apparent that he was affected, although he had not manifested any cough, but he was rapidly losing flesh. He was then weighed, and was found to weigh 2,456 pounds. He was again weighed on July 10th, and his weight was then 2,290 pounds: and as at this time it was very evident that he also was affected, it was decided to kill him. On post-mortem we found a large deposit in the central portion of the left lung, and numerous small tubercles upon the left pleura. The bronchial glands were greatly enlarged, and on cross-section were found calcified.

“ Leaving the herd at present, I wish to call your attention to the calves that were born during the winter and spring of 1883-84. Writers tell us that it is not an unusual occurrence for animals well advanced in tuberculosis to abort. This

seems to be true, as such was the case in this herd. I observed that eight calves were prematurely born, two of which required assistance at birth, as the mothers were much exhausted. One of the two that were removed was in about the eighth month of gestation. The foetus on examination was found saturated with tubercles, some of which were as large as peas, and on drawing a knife across them they were found calcified. Tubercles were found in the liver, bowels, diaphragm and chest-wall; there being none observed upon the lungs. The mother of this calf was killed some weeks afterward, and was found highly tuberculous, the disease being well advanced to the third stage of suppuration.

“ No. 2 was from a diseased mother, also in about the eighth month of gestation. On examination I found the liver, diaphragm, and bowels quite thickly studded, but the tubercles were much smaller than in the preceding case. Of the other six prematurely born, I was able to examine only two of them, as the other four had been destroyed before I was acquainted of the fact. One of the two, however, that I did examine, was found to have a tuberculous liver.

“ During the winters and springs of 1883-84 and 1884-85 fifty-three calves were born to the herd, and each one was examined, with reference to the disease. Twenty-nine of the number were found tuberculous in some of the viscera. The greater number of the calves were killed within five weeks after birth, and the whole number before the expiration of four months. I will only call your attention to the most interesting cases. One calf killed at the age of five weeks was found highly tuberculous. The liver was double the normal size and covered with tubercles. On cross section it was found to contain a large vomica, filled with at least one pint of fluid of a muco-purulent character. Tubercles were also found upon the pleural face of the left lung: also an extensive deposit in the apex of the same lung. The mesenteric glands were enlarged and cheesy. The bowels were thickly studded and in a state of subacute inflammation. This calf had suffered from a severe