

diarrhœa for several days, and had failed considerably in flesh.

"The mother of this calf was killed shortly afterward, and was found badly diseased. Among the organs affected was the milk-bag which contained a large tuberculous abscess. In this case does it seem possible for the disease to have been acquired wholly after the birth? To my mind it does not seem possible that the disease could have developed with sufficient rapidity to have produced an abscess of the liver in such a limited time. However, I am of the opinion that the intestinal lesions were produced, to a great extent, from the milk of its mother, as undoubtedly the milk must have contained elements of the disease.

"In another calf, seven weeks old, the left lung was adherent to the chest-wall at the apex, where there was a large tubercular deposit. Also there were many small tubercles upon the lungs and in other places. The liver and bowels contained many tubercles the size of peas, and on cross-section were found in a state of cheesy degeneration. In the remaining cases the lesions were not as marked, but the disease was none the less apparent.

"You have now the history of the herd up to June, 1884, and we find that nearly one-half of the herd of milch cows has been disposed of, all that were supposed to be diseased having been killed. The remainder of the herd were observed from time to time, and examinations repeated every twenty or thirty days: and upon each examination new cases were discovered, which were immediately removed from the herd, as it was thought they could be fattened and made use of.

"The sorting out and feeding continued for several months, and at the time of killing many had not gained at all, while others had taken on considerable flesh; but upon killing only five were found fit for use, and four of these were slightly diseased in some of the viscera.

"During the spring of 1885 a number of young heifers in with calf had been kept upon another portion of the farm. Before putting them with the old herd they were

examined, and many of them were found diseased. It was deemed advisable to kill them. The calves of these heifers were all diseased. The remainder of the young herd were put with the remaining portion of the milch cows, and the combined herds now numbered about forty head. The examinations were still continued from time to time, during the summer and fall of 1885, and occasionally one was found manifesting the usual symptoms of the disease. This procedure was continued until the spring of 1886, when it was thought advisable to feed the remainder of the herd. During the past summer all were killed except ten, which have been killed during the past month, and, in nearly every case, disease could be found in some of the viscera, and some badly diseased. The specimen that I wish to show you is a very interesting one, inasmuch as it shows that one is not able, at all times, to tell whether or not the animal is diseased. You will observe that the disease, in this case, is confined wholly to the bronchial glands, there being no other organs affected—that is, as far as I have been able to determine. Auscultation of the lungs in this case revealed nothing abnormal, and the superficial lymphatic glands, were not enlarged, and the animal had not manifested a cough. The bronchial gland, in a healthy cow, is about four or five inches long, about one inch wide, and one-half inch in thickness. Here we have a specimen, removed from a Holstein cow nine years old, in which we find the gland is about ten to twelve inches in length and nearly six inches in thickness. This, on section, we shall find in some places calcified, and in others cheesy.

"The only possible objection that could be raised regarding the care of these animals was that of ventilation. The stables were kept scrupulously clean, being washed out daily, and there were no cesspools about the barns or yards. The barns are situated upon a side-hill, thus affording the best possible drainage.

"Their food was of the best of hay, corn fodder, bran, and vegetables.