

rough coat and arched spine, the difficult and labored respiration, the sunken eye and pendulous abdomen, with extreme debility and emaciation, were nearly all absent in this herd; the judicious attention to hygiene, and the untiring care-taking of their faithful Superintendent, accounting in a great measure for the slow but sure development of the disease, a circumstance that so long deceived the attendants and College officials themselves as to their true condition. Many of the animals were also pregnant, and it is a well-known fact that increase of the tubercular growth is then held in abeyance, the energies of the nutritive processes of the body being diverted to the nourishment and growth of the foetus, while after parturition the system is for a time debilitated, and rapid extension of tubercle is favored. Individual members of the herd were of great excellence, several cows having 'butter records' of sixteen pounds per week, while one hundred and fifty pounds of 'gilt edged' butter was being sold in Bangor market weekly. About ten days before my visit, the Jersey cow Pet, No. 40, P. M., fourteen years old, had become so emaciated that she had been killed, and lay frozen in the field adjoining the stables, and this cadaver furnished me with ample opportunity to verify my diagnosis. From this cow I obtained the lungs, and a cross-section of the pulmonary tissue revealed the presence of numerous yellow tubercles, large and small cavities filled with a mucopurulent mass, others with caseous material. The lungs presented the identical lesions afterwards found in most of the animals at Orono, and of the peculiar metamorphosis which tubercles undergo, those of caseous degeneration afford the most favorable conditions for infecting the expired air of the diseased animals. At the time of my second visit, March 12th, from among ten or twelve cows I had previously ordered isolated from the others, I selected two Jersey cows, Princess Alice, No. 44, P. M. and Princess Alba, No. 27, P. M. (the latter I then regarded as a typical case), and had them destroyed for the post mortem examination. Princess Alba had

a temperature of 103 3-5°, marked emaciation, and dullness on percussion over the right lung, while auscultation clearly disclosed humid crackling or gurgling rales. The autopsy revealed an extraordinary amount of disease. The lung, pericardial, and pleural membranes were loaded with deposit, which hung like bunches of grapes, exhibiting a perfect case of what is known as "angleberries." In some part there was scarcely a remnant of proper lung-structure detectable, while others contained large tubercles filled with caseous material and also cavities connecting with bronchia, whose contents had been expectorated or absorbed. The bronchial glands in this case had attained enormous dimensions, the thymous weighing several pounds, and altogether the lesions were as extensive and varied as in any subsequent autopsy. The lungs of Princess Alice were studded with miliary tubercles scattered throughout them, while the bronchial lymphatic glands contained calcified material that grated under the knife when attempting to cut it. Mr. Gowell wrote me on March 20th: 'There is not a very marked change in many of the cattle, but in others, particularly those isolated in the stable, the process of 'wearing out' is going on actively, and every day's developments go to sustain my conviction, and opinion expressed before notifying the Board of Commissioners that the entire herd was doomed. Unpleasant as it was, I was forced to recognize the truth.'

"On April 6th. the Commissioners met with the Governor and Council, at Orono, when the herd was again inspected and final action recommended at an early date. I then suggested to Governor Robie the propriety of requesting the Hon. Norman J. Colman, Commissioner of Agriculture, at Washington, to send Professor Salmon, or some other expert examiner from his office, to consult and advise with the Cattle Commissioners, as to the proper disposal of so valuable a herd. The request was promptly complied with and Dr. Ch. B. Michener, Professor of Cattle Pathology and Obstetrics, at the American Veterinary College of New York, was detailed for this service."