

poultry-yard the disease is very common, and with them often assumes an epidemic character.

CAUSE IN CATTLE.

Tuberculosis is a parasitic disease which is both inoculable and infectious. Dr. Villemin, in 1865, demonstrated its contagiousness. Dr. Robert Koch has the honor of having isolated its microbe, which, therefore, has been given the name of "the bacillus of Koch."

This tiny organism, which is only one ten-thousandth of an inch long and one fifty-thousandth of an inch wide, is a slender, rod-like body which can only be seen under a microscope of high power. The spread of the disease has but one cause—the penetration into the living body, and the propagation there of this tiny microbe.

herd of a tuberculous animal. Is that condition enough? Professor Nocard answers, "No." The contagion of tuberculosis is of a particular kind, and transmission of the disease takes place only as the result of an intimate and prolonged living together. Just how the disease spreads among cattle is not known. Just when a diseased animal becomes dangerous to others has not been clearly shown. Their sojourning together on a common pasture may be looked upon as practically free from danger. There seems to be little risk of infection being carried a distance through the air, even a short distance. Cows in one end of a stable were all found healthy, while in the other end, connected by an open door, they were nearly all tuberculous. One range in a stable has been found infected, while the other range remained healthy.



Prize-Winning Herd of Purebred Ayrshires,

As shown at the Toronto Industrial Exhibition, 1896. The property of Alex. Hume & Co., Burnbrae, Ont.

When the bacillus has become lodged in any organ or tissue it begins to multiply, and causes an irritation which leads to the formation of tubercles, whence the general name of the disease, "tuberculosis." These tubercles, when they have reached their full growth, are little nodules about the size of millet seeds. When they are produced in large numbers they run together, forming masses of various sizes. The disease is a development of these tubercles in one or more organs of the body.

The tuberculosis bacillus may be carried into a healthy body, and may, nevertheless, not find a lodgment there; it may be thrown off again.

TO WHAT EXTENT INFECTIOUS.

Of course, for a healthy herd to be infected a necessary condition is the introduction into the

ill-ventilated, badly-cleaned stables, where animals are kept tied for a long time, seem to favor the spread of the disease. A stable may become infected, and be dangerous to animals brought into it. The power which tuberculosis possesses of spreading is not clearly known.

SYMPTOMS.

Tuberculosis in cattle is a disease whose progress is usually very slow. Its presence is often compatible with all the appearances of health, and it may exist for months and years without anything occurring to cause one to suspect its existence. Whereas in man, in whom it most commonly attacks the lungs, doctors easily recognize its commencement, it is not the same with cattle. In them the disease may escape the most careful examination, even at an advanced period of its existence.