

Tubercular disease of the cow's udder is fortunately not a common lesion, but unfortunately it is not rare. Anyone with a knowledge of the clinical characters of the disease will find instances of it in the dairy stock in any of our large towns. It is not a thing of great importance from the cow-keeper's point of view. Professor McFadyean did not suppose that there was a dairyman in the country who, to his knowledge, had ever seen a case. It runs a comparatively painless course, and it does not materially interfere with the general health of the cow. The owner of the animal would class it along with every other variety of mammary inflammation as a case of "weed," and he would ridicule the notion that it rendered the milk dangerous. Nevertheless, it may be asserted, that in every case of mammary tuberculosis the milk contains the specific bacilli. He would not stop to prove that such milk is likely to be the cause of human tuberculosis. There are some who deny or belittle the danger of consuming the flesh of tuberculous animals, but there is no loop-hole of escape from the conclusion that milk drawn from a tubercular udder must be extremely dangerous to human beings drinking it in the raw state.

It may be admitted that we can point to but very few cases in which human consumption had its starting point in the drinking of milk from a tubercular cow. But we know that, given a case of mammary tuberculosis, we can excite tuberculosis in a considerable proportion of individuals, of species not more susceptible to infection than human beings, by causing them to ingest the raw milk from the diseased udder.

But, unfortunately, the whole extent of the danger of milk from tuberculous cows has not yet been set forth. What had been just said applied to cases in which the udder itself was the seat of disease. But it is in only a small proportion of tuberculous cows that the udder is diseased, and until the contrary had been shown there was reason to hope that the milk was innocuous as long as the mammary gland was not the seat of an actual tubercular process. It is matter for regret that recent experiments by very reliable investigators point to the conclusion that even when the udder presents during life and after death no discoverable sign of disease, the milk of tuberculous cows may be in-

fective. It is true that in these cases the bacilli were never abundant, but still the milk contained them in such numbers that a small quantity of it when introduced into the peritoneal cavity sufficed to excite tuberculosis in guinea-pigs.

No one dare assert that even a single bacillus might not set up a fatal tuberculosis when ingested by an infant or an adult with the tuberculous predisposition. In the present state of our knowledge we are warranted in declaring that the milk of a tuberculous cow, even when the udder presents no sign of disease, is unsafe for human consumption, and that its sale ought to be prohibited. Nothing short of an organised system of veterinary inspection of our dairy stocks can guard against this danger. Such inspection would require to be not less frequent than once a month.

Tuberculous meat is a term used in two different senses. It is sometimes employed when organs or tissues actually and visibly tubercular are referred to; at other times it is used in speaking of the apparently healthy carcass of an animal, one or more of whose organs has been the seat of visible tubercular lesions.

The question now at issue among sanitarians is not whether actually tuberculous organs or parts are fit for human food, but whether any part of an animal in which tubercular disease exists at the time of slaughter may, without danger to life and health, be consumed by human beings. On the other hand, we have the advocates of "total seizure," who maintain that tuberculosis is a disease *totius substantiæ*, that whenever there is a single tubercular focus in an animal the bacilli are or may be distributed throughout its entire system, and that consequently every animal in which tuberculosis exists, no matter how limited the apparent lesions at the time of slaughter, ought to be totally condemned as unfit for the food of man. On the other hand, we have those who hold that, in a great many cases of tuberculosis, where the discoverable structural alterations are confined to a single organ and its lymphatic glands, we may with perfect safety assume that the bacilli have not invaded the entire system, and that in such cases the carcasses may without appreciable risk be used for human consumption.

To discuss fully and critically these two