

monstrated the presence of tubercle bacilli in the milk.

Prominent physicians both on this continent and in Europe maintain that tuberculosis is often imparted to human subjects by milk from diseased cows, and Prof. Bollinger, in a paper read not long ago in Munich, has sustained their position. He said that repeated experiments show that the milk of tuberculous beasts has a very decided contagious influence, and its noxious properties cannot always be expelled even by boiling. The Professor enjoined upon farmers the necessity of taking the strictest care of their stock, and upon people generally the greatest care as to the quality of the milk they use. Prof. D. E. Salmon, of the U. S. Bureau of Animal Industry, declares his belief that tuberculous milk is an exceedingly prolific source of consumption in the human family; and says there are clinical observations proving the transmission of tuberculosis from animals to man through the use of this fluid. Other U. S. authorities have expressed themselves in equally strong terms. One connected with this same Bureau, whose name I cannot recall, believes that half the cases of consumption in the United States are caused by tuberculous meat and milk. But let us come to something more definite. Prof. Walley says: "In 1872 I lost a child in Edinburgh under circumstances which allowed but of one explanation, viz., that he had contracted mesenteric tuberculosis through the medium of milk." A Mr. Cox, of the Army Veterinary Department, Eng., has related the particulars of a case which led to the same conclusion; as also has Mr. Hopkins, F.R.C.V.S., of Manchester. Fleming has referred to a similar case as occurring in a child of a surgeon in the United States, and a short time ago, says Walley, a case of mesenteric tuberculosis from the imbibition of milk occurred in the child of a well-known veterinary officer of the Privy Council. At a meeting of the Edinburgh Medico-Chirurgical Society held last year, Dr. Woodward, referred to some undoubted cases of transmission to man and the pig by the medium of milk. A few years ago, in a paper bearing upon this subject, which I had the privilege of reading before the Toronto Medical Society, I mentioned the two following cases, which had then just been recorded in the U.S. National Health Bulletin: One, by Mr. J. Shaw, V.S., Prof. of Vet. Med. in Cornell Uni-

versity; in Brooklyn, N. Y., a family cow was found in an advanced state of tuberculosis, and the owner, one William Martin, and his wife, were rapidly sinking under the same malady. In the other case, reported by Dr. Corlies, of New Jersey, a family cow, supposed to be suffering from lung plague, was found to be afflicted with tuberculosis instead, and the owner's wife, who had been making free use of the milk warm from the cow, was suffering from the same disease, but was persuaded to give up the use of the milk, when she underwent an immediate and decided improvement.

A more striking case than any one of these was recorded in the *Medical Press and Circular* a few months ago, by Denune, of Berne, the details of which are as follows: An infant, aged four months, belonging to a family whose history was absolutely negative in regard to tubercular affections, died of tuberculosis of the mesenteric glands; a fact confirmed by a post-mortem examination. The glands alone contained the bacilli; or, at least, none could be found in any other part of the body. The child had been fed with the milk of a cow which was kept for the special purpose. For the purpose of inquiry, the animal was killed and examined. The left lung and pleura were found to be studded with tubercle, in which the bacilli were easily detected. The milk first drawn yielded but negative results, bacteriologically, but the bacilli were found in portions of this fluid expressed from the deep parts of the mammary glands.

The journal alluded to regards this case as important from another point of view: as if, instead of a human infant, a calf had consumed the milk from its mother's udder, it would in all probability have become tuberculous, and the case would have been regarded as one of heredity.

According to Prof. Bang and others the cream and butter, and also the buttermilk, from tuberculous cows, have been shown to be as infective as the milk, if not more so. This is of the most serious importance of all; for although the milk and flesh can doubtless be so cooked as to be rendered safe, it is not so practicable to cook cream and butter.

Now it becomes a question—Is the disease in Canada so prevalent among cows or other animals as to create alarm or uneasiness? I should