

area the disease is less frequently met with than formerly, and will no doubt, in the course of a few more years, be even there an unknown quantity.

The discovery of mallein, a toxine produced by the growth of the glanders bacillus on suitable media, by two Russian veterinarians, von Prouse and Kalning, is of inestimable value in dealing with this equine disease, which every year claims its quota of human victims. No doubt the history of the Ottawa outbreak is still fresh in the minds of many, as well as the fact that the strict sanitary measures then enforced, is responsible for the almost complete absence of the affection in this city to-day. The results achieved can almost wholly be attributed to the intelligent use of mallein in removing those incipient cases which presented no clinical manifestations, but nevertheless would have proved virulent foci without this aid to diagnosis.

Tuberculin has likewise rendered a valuable service in the detection of incipient cases of tuberculosis. Many practical examples are now on record where the sale of a tuberculous herd was the means of disseminating the disease through the sale of the tubercle bacilli with the animals, and the unwitting purchase of both by an innocent buyer. There is at present no excuse for such a condition of affairs, as tuberculin will detect the disease and protect the individual from a large financial loss, at an outlay hardly worth consideration, in view of the saving of many valuable animals from an infection which sooner or later bids fair to materially affect their commercial value.

Scientific investigation is constantly indicating that bovine and human tubercle bacilli have a common origin, and that any difference which may appear in their cultural characteristics or virulence is due to the conditions and surroundings.

The possibility of the contamination of milk with tubercle bacilli is a factor wherever we have a single case of tuberculosis in a dairy herd. Senstrom\* has recently shown that tubercle bacilli are not necessarily in the milk of reacting animals, if the milk is drawn under strictly aseptic conditions, and there is no udder lesion. He indicates that the most frequent source of tubercle bacilli in the milk is from the fæces. That tubercle bacilli may be, and are, present in the fæces of cattle affected with lung tuberculosis has been conclusively proven by Ostertag.

Newton,† a very close observer of the milk situation, after indicating that the bacterial content of sewage is recorded to be from one million

\* Olof Senstrom. *Zeit. für. Theiirmd.* 1904.

† R. C. Newton, M.D. "Contamination of Milk." *Jour. Am. Med. Ass'n*, Vol. 2, 1904, p. 1,337.