

tainly of respiratory origin, may be caused by the bovine tubercle bacillus.

When a Commission which is evidently doing its best to sustain Koch has to acknowledge that 35 per cent. of the children examined by it show lesions due to the bovine tubercle bacillus it seems time to abandon the doctrine that tuberculosis of cattle has little or no effect on human health.

It appears to me that the case might well rest on the positive evidence afforded already by the discovery of the bovine germ in children.

FREQUENCY OF BOVINE INFECTION. I will not attempt to say what proportion of children die of bovine infection. If I have sustained my contention that the two diseases are essentially the same and intercommunicable, it is evident that the number of children in any given locality who become infected from bovine sources will vary directly with the prevalence of tuberculosis in the cattle of that district and with the extent to which unsterilized milk is used as food.

In order to determine the percentage of children who derive their infection from cattle it would be necessary to isolate from a large number of those who died from tuberculosis the offending organism, and to determine its origin. The cost of this is prohibitive for private laboratories, and it must be undertaken at the public expense if done at all. The findings already published are too few in number to form the basis of an estimate, but they show conclusively that it is not a rare occurrence to find the bovine tubercle bacillus in the lesions of children. The German Commission found it in four out of sixteen cases examined; De Schweinitz twice in four cases; Theobald Smith once in five cases and at the laboratory of the State Live Stock Sanitary Board of Pennsylvania, I have found it in two out of five cases. Febiger and Jensen have found it in three instances.

EXTENT OF TUBERCULOSIS IN CATTLE. I will not weary you with an array of statistics showing the prevalence of bovine tuberculosis. It is well known to be a scourge, and to be especially prevalent in milch cows of the herds on the dairy farms near large cities,—at least this has been the case in the past, to a great extent. The introduction of certified milk has had a wide-spread educational effect, and has done much to better the condition of many herds, directly as well as indirectly.

I hold strongly to the opinion that it is not only the cow with tuberculosis of the udder that is dangerous, though this is no doubt an especially perilous condition. Dilution with the milk of healthy cows un-