

lymph stream through the thoracic duct into the right side of the heart, and thence directly into the lungs.

4th. With our present knowledge of the distribution of the bacilli from human sources it is extremely probable considering the way children are allowed to creep upon the floor, and the tendency they have to put everything into their mouth, that bacilli may frequently be introduced on their fingers or on their playthings. It is also probable that much more frequently than the germs of typhoid fever human bacilli may be introduced with the food. The ingestion of bovine bacilli conveyed in milk is, therefore, by no means the only source of intestinal infection we have to reckon with.

From these statistics, however, we must conclude, that in the past the general profession has unquestionably exaggerated the danger of infection from ordinary milk. We have been misled perhaps by the frequency with which bacilli have been reported to exist in milk, for many investigators have mistaken other acid-fast bacilli found both in milk and in butter for true tubercle bacilli.

We have also been unduly afraid of a few bacilli in otherwise normal milk. Holt³⁴ is undoubtedly right when he says, "Unless the udder is the seat of disease, the number of bacilli contained in cow's milk is so small that infection from this source can hardly be considered as anything more than a possibility. There is little doubt that tubercle bacilli in small numbers may be introduced into the stomach with the food almost with impunity, traverse the intestinal tract and be discharged without ever attaching themselves to its mucous membrane.

The mixing of the milk from the whole herd also lessens the number of bacilli in any given quantity of the milk. At least it is probable that it does so in America, for tuberculosis in cattle does not exist to anything like the extent it does in England and in many European countries.

It is also to be remembered that tubercle bacilli do not develop in milk under ordinary circumstances as many other micro-organisms do, and that if they are not actually destroyed their virulence is at least inhibited by the many modes in which the milk is prepared for the child.

Although contrary to our experience in America, careful and recent records like those of Still, demand much consideration. It may be regarded as some explanation of the difference between his statistics and those of Northrup, Holt and Bovaird in America to point to the much greater frequency of tuberculosis in the cattle in Eng-