

nothing has yet been done by me to note the results at higher temperature ranges.

Experiments were made of inoculating sterilized milk tubes with the Diphtheria bacillus and the common bacillus acidi lactici. This microbe was selected because it is the cause of the common souring and curdling of milk, and because it is practically always present in fresh milk, usually being present in the fore milk. In tubes so inoculated the Diphtheria bacillus was never noted to increase in numbers while the lactic acid germ increased enormously. The Diphtheria bacilli gradually died out of the milk and were never recovered after the 7th day. The growth of the lactic acid germ in the milk in all my experiments has thus been inimical to the development of the Diphtheria bacillus. I may say that to recover the Diphtheria bacillus I used blood serum as in ordinary Diphtheria diagnosis. On blood serum *B. acidi lactici* practically refuses to grow at body heat.

Fresh milk was also inoculated with *B. Diphtheria* and examined afterwards at four hour intervals. Here again no increase in Diphtheria bacilli was found. Though Diphtheria bacilli could be recovered up to the 5th day. In all fresh milk samples the lactic acid bacillus was found, and with it such species as *sarcina lutea*, a variety of *bacillus coli*, a yeast and *penicillium glaucum*. In competition in milk with the *penicillium glaucum* the Diphtheria bacillus is quickly killed out, disappearing from the 5th to the 10th day. It seems from my experiments to be proven that at a temperature averaging 70 to 72 ° F. the Diphtheria bacillus while it remains alive and virulent during the period of time in which the milk is commonly used, yet it does not tend to multiply in such milk and is soon killed out in competition with the common milk saprophytes. As these results do not seem to be in line with many facts noted in connection with Diphtheria epidemics from milk infection I mean to again go over my experiments to see if a second series confirm my previous results.

TYPHOID BACILLUS.

The typhoid bacillus at the room temperature multiplies very rapidly in sterilized milk, which affords one of the best media for its rapid development.

In sterilized milk inoculated with the *B. Acidi Lactici*, as