

temperature with each injection. Th's goes to prove the absence of antitoxic material in the vaccinal condition, and that the serum is efficacious only when the fatal dose of poison has not yet been formed in the organism. The serum then is really an anti-microbic, not an anti-toxic serum. It is bactericidal in action, and good results may be looked for only when its use has begun early.

Sanarelli thinks that the ideas of the disease entertained by those who have had no experience in it are commonly wide of the mark. It is thought of as resembling cholera, and showing especially lesions of alimentary tract, whereas it ought to be classed with the typhoid diseases. It is a febrile disease, highly toxic, and with lesions and symptoms which are far from being specially confined to the gastro-intestinal tubes. Albuminuria, anuria, delirium are often seen with no symptoms from the digestive tract at all. In some epidemics anuria is the symptom. In cases in which the kidneys fail of their duty serum treatment is useless.

#### The Length of the Incubation Stage in Typhoid Fever.

E. Jancken (*Wiener klinische Wochenschrift*, 1898, No. 27) had an opportunity of making an important observation. Certain troops marching through two small villages in which were a number of cases of typhoid fever, drank copiously of water given by the villagers. That infection was acquired in this way follows from the absence of other exposure. Moreover, other troops passing through without pausing to drink remained free from infection. Of the thirty-six cases the symptoms appeared suddenly in all, with headache, chill, fever, severe diarrhea, abdominal pain, and weakness. The course was mild, and defervescence occurred in the third week. The beginning of the disease was noted in three men on the second day (i.e., two days after infection), in seven on the third day, in six on the fourth, four on the sixth, five on the seventh, in the other seven between the ninth and fourteenth days. This shows that under favorable circumstances the typhoid bacilli can produce symptoms within two days. In the cases observed the favorable conditions consisted in great fatigue, excessive thirst, and ingestion of considerable quantities of the infected water. That the germs were not of unusually great virulence may be supposed from the mild form of the disease.—*Amer. Journ. of Med. Sci.*, October, 1898.

#### Intra-uterine Typhoid.

In the *Scottish Medical and Surgical Journal*, 1898, vol. iii., No. 1, Fordyce reports a very interesting case in which typhoid was demonstrated in a five-months' fetus. The mother aborted