

taining a dilution of 1-25. Then take 0.5 c.c. of a formalized culture of *B. Typhosus* and 0.5 c.c. of the diluted serum, thus obtaining a dilution of 1-50. Mix thoroughly, incubate at 37° C. for one hour, or allow to stand twelve hours in a warm room. A clear supernatant fluid indicates the presence of a positive reaction, and turbidity a negative result.

(2) *Microscopic*.—Allow a large drop of blood to dry on a piece of glazed paper, then add to this a platinum loopful of distilled water; a certain amount of the serum will pass into solution in the water. When this becomes a faint straw color the desired result is obtained, (a dilution of 1 to 20).

Take now a loop of a twelve-hour broth culture of the typhoid bacillus, add to it and mix well 1 drop of the diluted serum (1 to 20), and make a hanging-drop preparation. In the presence of a positive reaction, agglutination and cessation of mobility, should take place within fifty minutes, in a dilution of 1-40.

Pure serum may be obtained by drawing blood into a small glass tube, sealing, and allowing coagulation to take place after which the end may be broken off the tube and the serum obtained.

### IX. THE DIAGNOSIS OF TUBERCULOSIS.

(1) *Koch's old method* depends on the febrile reaction produced by the hypodermic injection of "old tuberculin."

In cases of suspected tuberculosis, a dose of 0.001 c.c. of old tuberculin is given by hypodermic injection. For children above five give half this quantity and a quarter of the dose or less for children under five.

A positive reaction will follow within forty-eight hours, shown by rise of temperature 1° to 2° F., malaise