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Botulism; a study of the action of the toxin of *B. botulinus* upon the living tissues.

By **ERNEST C. DICKSON** and **RICHARD SHEVKY.**

[From Stanford University Medical School, San Francisco.]

In a study of the action of the toxin of *B. botulinus* upon the living body it was found that the upper and lower neurones of the skeletal motor nerve supply are unimpaired and that there is no disturbance in the spinal reflex arcs of the extremities. There is, however, definite evidence of a blocking of the nerve impulses in the nerves of the non-sympathetic portion of the involuntary nervous system, *e.g.*, the vagus nerve, the chorda tympani and the nervi erigentes. There is indication that this blocking is of a temporary and relatively unstable nature, and that it is not due to organic destruction of the nerve elements.

Cats, dogs and rabbits were used in the experiments.

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The agglutinating action of salvarsan in vitro and in vivo.

By **JEAN OLIVER** and **SOSABRO YAMADA.**

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A detailed study of the mechanism of the agglutinating action of salvarsan on red blood cells shows the following points.

In vitro salvarsan has a fairly constant titre of agglutination. There is a progressive drop in this titre as the solution is oxidized on standing. Although the red cells have the power to bind salvarsan in isotonic sugar solutions, no agglutination takes place unless a certain amount of salt is added. Serum, as well as other hydrophilic colloids, under proper conditions may prevent the occurrence of agglutination. It was shown that this inhibition was due to a prevention of the union of salvarsan with the cells.