

the amount absorbed bears to that unabsorbed. Thirdly, it follows from the second conclusion that the actual amount of complement which is used in the reaction is not important within limits, except as it affects the slope of the plotted logarithmic curve. This gives a method susceptible of considerable accuracy for the comparison of any unknown syphilitic serum or spinal fluid with a standard syphilitic serum which has previously¹ been shown to be indefinitely preservable by appropriate technic.

10 (1757)

Experiment in new method of therapy of paralysis agitans.

By M. H. WEINBERG and T. SCHUBB.

[Pittsburgh, Pa.]

Starting out from the premise that paralysis agitans is due to hyperparathyroidemia, as advocated by several observers, we proceeded to prepare a parathyroidectin substance for the treatment of this condition. Experiments were conducted on rabbits and on goats. The two external parathyroid glands of the goat were removed, and after forty days the blood of the goat was withdrawn and glycerinized. The administration of this blood to Parkinsonian patients seems to show promising results. Further study of this method of therapy is now under way.

11 (1758)

**Typing of different strains of *Bacillus botulinus*
by immunologic methods.**

By J. BRONFENBRENNER, M. J. SCHLESINGER and S. C. CALAZANS.

[From the Department of Preventive Medicine and Hygiene, Harvard Medical School, Boston, Mass.]

A number of strains of *Bacillus botulinus* isolated both abroad and in this country represent a fairly uniform group in so far as their cultural characteristics and the symptoms produced by their toxin are concerned. However, in respect to neutralization of toxin by antitoxin there exist two sharply distinct groups of this organism, thus suggesting that in fact we are dealing with two distinct antigens.

¹ *loc. cit.*

In this attempt to find a method by which the existence of two antigenic varieties within the group of *Bacillus botulinus* could be established without the recurrence to the toxin-antitoxin test we found that neither the complement fixation nor the precipitation tests give satisfactory results. The agglutination test, however, offered a ready means for grouping as the results obtained with this test were in accord with those obtained by toxin-antitoxin tests. The agglutination test has permitted us to classify also such strains of *Bacillus botulinus* which have lost their toxicity under the conditions of test tube cultivation. As a control in all the above experiments we included a strain of *Bacillus sporogenes* and found that contrary to the statement in the literature all but one of the strains obtained by us from different laboratories in this country are free from *Bacillus sporogenes* contamination as judged by the above serologic tests.

12 (1759)

The antiscorbutic potency of strawberries.

By CLARENCE A. SMITH, OLAF BERGEIM, and PHILIP B. HAWK.

[*From the Laboratory of Physiological Chemistry of Jefferson Medical College, Philadelphia, Pa.*]

Several guinea pigs were fed a diet of oats, milk, and hay until they were decidedly scorbutic. They were then given expressed strawberry juice, either fresh juice or juice previously boiled for five minutes. The symptoms of scurvy were overcome within seven days by the administration of ten c.c. per day of either boiled or unboiled juice. Strawberries, therefore, appear to be relatively rich in water-soluble C, and their content of this vitamine is not seriously decreased by five minutes boiling.

13 (1760)

A modified anaphylactic reaction induced by X-rays.

By R. G. HUSSEY (by invitation).

[*From the Rockefeller Institute for Medical Research, New York City.*]

The following observations are of interest in connection with a theoretical consideration of the mechanism of classical serum anaphylaxis.