lying free or within phagocyte cells, and it seems probable that it is excreted chiefly, if not entirely, in these cells. Bleeding from the surface of the ulcers is not responsible for the presence of the dye in the stomach contents. The dye is first present in demonstrable amounts from forty-five minutes to one hour after injection, and may be found as long as three hours or more thereafter. The optimum time for withdrawal of the contents is probably about one and one half hours. The diagnostic value of the method in ulcerated conditions of the gastric mucosa is a subject which is being further studied, and which will require a very considerable series of examinations to determine finally. From the limited number of cases yet examined, it is impossible to draw any conclusions further than that in the pathological conditions above mentioned the dye is frequently present in considerable amount in the contents. It is possible that other conditions, such as chronic gastritis or congestion, may permit of the excretion of the dye in a similar manner and in comparable amounts, but we have not as yet found this to be the case. As regards the excretion of the dye in the duodenum, we are not in a position to make any report. The fact that the dye is normally excreted in the bile in solution presents certain difficulties in the study of this problem.

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A comparative test of different antigens and of different temperatures of incubation in the Wassermann test.

By J. WHEELER SMITH, JR., and W. J. MACNEAL.

[*From the Laboratories of the New York Post-Graduate Medical School and Hospital.*]

Tests were performed by six different methods upon 500 identical specimens from 457 patients. Three antigens were employed, cholesterinized alcoholic extract of beef heart, simple alcoholic extract of beef heart and the acetone-insoluble lipoid fraction of alcoholic extract of beef heart, prepared according to the method of Noguchi. Each of these antigens was used at two different incubation temperatures for fixation of the complement,

37° C. and 8° C., the subsequent incubation after addition of sensitized erythrocytes being carried out at the higher temperature.

Upon known syphilitics, the cholesterinized antigen at 8° C. gave the largest number of positive reactions, being followed, in order of efficiency, by the plain antigen at 8° C., cholesterinized antigen at 37° C., acetone-insoluble antigen at 8° C., the same at 37° C., and last the plain antigen at 37° C.

Reactions considered to be false positives were obtained eight times with the cholesterinized antigen at 37° C., five times with the cholesterinized antigen at 8° C., and once with the plain antigen at 8° C., in this series of 500 tests.

47 (1225)

On thyroidectomy in amphibia.

By **E. R. HOSKINS** and **MARGARET MORRIS.** (*By invitation.*)

[*From the Department of Anatomy, N. Y. University and Bellevue Hospital Medical College and Department of Zoölogy, Yale University.*]

With due care to technique it was possible to remove successfully the anlage of the thyroid gland from young growing larvæ of *R. sylvatica* and *Amblystoma punctatum*. The stage best suited for this experiment is that just preceding the beginning of the circulation of the blood. At this time there is no danger of hemorrhage and the chances of regeneration of the removed gland are fewer than with younger larvæ. Chlorotone in salt solution was used to produce anesthesia.

Thyroidectomy was performed in 40 frog larvæ and 50 *Amblystoma* larvæ checked against an equal number of control animals.

A few of the thyroidectomized frog larvæ developed abnormally shaped external gills in some of which no circulation was to be seen. This was evidently due to injury to the vascular system. One animal developed no external gills although it lived and grew through the period during which external gills normally persist.

The operated animals grew less rapidly than the controls. Only one control and one experimental animal survived the normal