of which 89 showed 4 + Wassermann on admittance; 11, 3 +; 8, 2 +; 1, 1 +; 4 +—; 5 were negative; 7 infants with hereditary syphilis, no initial Wassermann. Of these the results of treatment are shown by the following table:—

Stage of Disease	Apparently recovered	Im-proved	Unim-proved	Died	Total
Primary..	1	3	1	—	5
Secondary ..	10	36	14	—	60
Tertiary..	—	12	23	1	36
Hereditary ..	—	7	6	2	15
Asymptomatic	—	—	—	—	9
	11	58	44	3	125

SERUM DIAGNOSIS OF SYPHILIS AND GONOCOCCUS INFECTION BY COMPLEMENT FIXATION.

BY

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UP to February, 1914, the diagnostic work of the State Laboratory was limited to the examination of cultures from diphtheria, sputum from tuberculosis, and specimens of blood for the Widal reaction. During 1914 the diagnostic work was extended to include all examinations that are of definite practical value with the exception of the Wassermann test, which could not be developed without careful study and preparation.

During October, November, and December, the Wassermann work was fully organized and outfits distributed to physicians and health officers, but only 15 examinations were made before January 1st, 1915. From this time on, however, the increase in the work has continued without interruption. In 1915 nearly 6,000 specimens were received, and over 12,000 tests were made, and in 1916 over 10,000 specimens were received, and more than 20,000 tests were made. At the present time the work continues to increase month by month, and in view of the mobilization of troops in camps and the recruiting of large numbers of men for the army and guard of the State, the number of examinations should increase enormously if the authorities take the proper precautions to safeguard against the spread of venereal disease among these men and in the

communities where they may be stationed. The Wassermann test is an essential factor in a campaign of prevention against the spread of venereal disease.

Accordingly, to prepare for the emergencies which may arise from the demands for the examination of the specimens, the laboratory staff has been and will be even more rapidly increased to do the work. Volunteer assistants and more experienced candidates will be trained in many phases of the technical procedure of the work so that the staff can be augmented at short notice without materially interfering with the efficiency of the work.

In the laboratory from the beginning serum has been drawn from the specimens, and the Wassermann test has been carried out with two antigens and by two methods of fixation. One of the antigens is a crude alcoholic extract of beef heart with which tests are fixed in the ice box at temperatures from 5° to 10° C. The other antigen is a cholesterinized extract of guinea pigs' hearts with which tests are fixed for one-half hour in the water bath at 37° C. A sheep-rabbit system is used, and all reagents are carefully standardized daily. Comparative tests are made with other laboratories at intervals.

A record of the methods in use by other laboratories engaged in public health work is kept on file for reference, and notice of a change in these methods by the laboratories is sent to the Albany laboratory. In this way the laboratories of the State are in as close touch as to method and technic as it is possible to keep with the present staff and the increasing demands of the work.

The gonococcus complement fixation test was introduced in 1915, but only 54 specimens were received and on these 59 tests were made. In 1916, however, the work rapidly increased. Over 1,200 specimens were received, and on these 3,000 tests were made.

The problem of standardizing the gonococcus complement fixation test so that the results will possess definite practical significance, has been an extremely difficult one, and there is undoubtedly much work to be done to improve the technical procedures. The results of the examinations should be interpreted only in the light of careful clinical observation.