of the series. After incubation at 37 degrees for 48 hours, the sterility of the experiments was proven by broth cultures and the increase in amino N determined by the micro apparatus.

The increase in amino nitrogen with various enzyme preparations has varied from 14 to 26 mg. per cent. By varying the H-ion concentration of the solutions a maximum activity was found at P_H 7.0 with a decrease on both the alkaline and acid sides of neutrality. The acid endpoint of activity was about P_H 4.5. It was further found that heat destroyed the enzyme very readily. At a temperature of 56° C. for ten minutes in the absence of substrate, the enzyme deteriorated to such an extent that only a few mg. of amino nitrogen were obtained by its action. Higher temperatures completely destroyed it. Concentration curves at the optimum H-ion concentration approximated the usual curves for enzymes.

116 (1698)

A study of the Wassermann reaction in one hundred and forty cases of diabetes mellitus.

By JACOB ROSENBLOOM.

In a study of one hundred and forty cases of diabetes mellitus, a positive Wassermann reaction was found in sixteen cases. Eight of these sixteen cases presented signs of tertiary syphilis. These eight cases were treated for the existing syphilis. There was no increase in tolerance for carbohydrate following the treatment. This may be due to the fact that the fibrosis of the pancreas produced by the syphilis is not changed by the treatment.

117 (1699)

Blood pressure studies in one hundred and forty cases of diabetes mellitus.

By JACOB ROSENBLOOM.

Blood pressure estimations were carried out on one hundred and forty cases of diabetes for varying lengths of time. Some of these cases have been studied for a period as long as ten years. On the basis of these studies it may be concluded that the blood

pressure in uncomplicated diabetes is normal or slightly under normal. In every case of elevated blood pressure in this series I found complications such as aortitis, arteriosclerosis, nephritis, cardiac hypertrophy and aortic endocarditis. In conditions of acidosis the blood pressure falls. The presence or absence of hyperglycemia had no effect on the blood pressure.

118 (1700)

The antigenic properties of ragweed pollen.

By JULIA T. PARKER.

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Although most of the evidence would lead one to believe that pollens are antigenic, there are a few experimenters who still hold to a contrary opinion because they have been unable to produce antibodies to pollens. The question is of interest in its relation to hay fever. If pollens are antigenic, the anaphylactic nature of hay fever may be regarded as at least a possible explanation of the phenomenon. As pollens contain protein, although in small amounts, it would naturally be assumed that when sufficiently large quantities of pollen have been injected and delicate enough tests performed, antibodies could be shown to be present.

Although we have only two experiments to report, our results are so convincing that we feel that a definite conclusion is justifiable. These results were obtained by testing the isolated uteri of sensitized guinea pigs by the Dale Method.

EXPERIMENT I.

Three female guinea pigs were sensitized with pollen extract prepared as follows: 500 mg. of ground Mulford high ragweed pollen were shaken in a bottle in 200 c.c. of 0.04 per cent. NaOH in physiological salt solution for at least an hour on three successive days. This material was centrifugalized and the clear supernatant fluid, which gave the Millon and zanthroproteic protein tests, was injected intraperitoneally into the three guinea pigs. 70 c.c.