

by heating for twenty minutes at 76° C., is destroyed by acid and alkalies and by the combined action of Eosin (a photodynamic substance) and sunlight. He also showed that the serum remains active for one year, and these observations have been confirmed by various observers.

Regarding the exact nature of the phenomenon, then, Wassermann maintains that it is caused by the alexin being fixed by specific substances in the luetic serum (produced as a result of the infection) combining with a lipoid substance in the antigen. This practically reduces it to a specific antibody antigen reaction. From this extreme view of Wassermann on the one hand, opinions range all the way to the exactly contrary opinion of Elias Neubauer, Porges and Salomon (31), and others, who hold that the reaction is nothing more than an interaction between certain colloids. This view, however, has not been finally accepted. In a recent article Flashman and Butler (32), after going over the ground in an extremely careful and judicial fashion, conclude that "the reaction in the infection would thus seem to be placed in the same category with the alexin fixation which occurs with all antigen antibody reactions, and it seems necessary under this supposition to consider that certain substances of a highly organized nature produce the antibodies whose presence is indicated by alexin fixation," and later say: "It would seem that the minds of many observers have been so diverted by the discovery of the possible explanation of the Wassermann reaction by the interaction of known chemical substances that their attention has in some degree been drawn from the biological aspects of the test. All antigen antibody reactions are probably ultimately chemical in their nature, and sooner or later the nature of the substances which act as antigens in infection, whether contained in the body substance of a microorganism or formed by its influence, and of the other reacting substances, the antibodies, will be more or less exactly determined."

Having thus considered the theoretical aspects of the