inasmuch as animals after a primary injection are for a time far more susceptible than previously.

The serum from animals that have been thus rendered immune is found to have special properties, preventive, antitoxic and therapeutic, and has been employed against diphtheria by various methods and with varying results.

Some animals are refractory to the germ of diphtheria, and it was formerly believed that the serum of such was in itself antitoxic; this has in recent times been proved absolutely false, vaccination by the toxine being essential in all cases for the production of antitoxic serum.

In the administration of the toxine to animals Behring combined the toxine with various reagents, preferring trichloride of iodine, while at Paris M. Roux employs gram's fluid with equally brilliant, if not even better, results, and finds that only a few days interval is necessary between the first and second injections.

Dogs, goats, cows, sheep and horses can be thus immunized, some authorities preferring one animal, some another. It may be said in general that the larger the animal and the less susceptible it be, the more suitable it is for inoculation purposes, inasmuch as thereby more serum is obtained and the toxine can be injected with greater impunity. At the Institut Pasteur the horse is employed, M. Roux having succeeded only after several years' labour in completely and satisfactorily immunizing the animal.

Aronnson, whose antitoxine has now become procurable, obtained the serum from dogs rendered immune. He precipitates the antitoxine of the serum with sulphate of aluminum, after adding ammonia, and then washes the precipitate with a solution of carbonate of soda and places it in small phials for sale. Its activity is doubted and its strength apparently much less than many other serums.

Serum from the horse which has been rendered immune is likewise readily obtained. It must be collected pure and is best kept in sterilized vessels with a small crystal of thymic