tion. At most, there has been in some cases, a retardation of the process. The best results have been attained by the use of antitoxins representing as nearly as possible the complete metabolic activity of the germs, or by the injection of the living organism. It has, indeed, been possible to produce immunity by the latter plan, as the work of Trudeau and Baldwin has shown in the case of rabbits, and the more recent researches of Von Behring on the calf. Many experimenters have hoped to get better results by using as antitoxin-producers, animals that are generally supposed to be refractory to tuberculosis, such as the sheep and goat. The advantage of this has proved to be very questionable. In the few experiments that I have made, which have been carried out on slightly different lines from those hitherto published, I have employed goats, as being generally convenient and possessing a high degree of relative immunity. It is a well recognized fact that the blood serum of many normal domestic animals possesses what may be called natural antitoxic bodies, so that my first endeavors were directed to determining whether this is the case with regard to goat serum and tuberculosis. Should it prove to be so, then it might be attempted to increase this natural potency.

For the purpose of the experiment it was obviously necessary to obtain the serum without contamination from bacteria, and as nearly normal as possible. To attain this the following method was adopted. A large healthy male goat was taken, the hair was removed over the course of the external jugular vein in the neck, and the skin washed and sterilized by means of a solution of sublimate (1-1000). A large sterilized trocar, attached by a rubber tube to a sterilized bottle was then inserted into the vein, and the blood allowed to flow into the vessel. The serum was allowed to separate in a cold chamber, the clear portion carefully decanted off, and one-quarter per cent. of chloroform added as a preservative. It was found that the serum thus prepared kept perfectly well for some weeks.

Experiment I.

The first experiment was conducted under the following conditions. Eight guinea-pigs and ten rabbits, presumably in good health, were taken, and their weight and temperature, before inoculating, were obtained. They were then numbered and kept in separate hutches. On March 13th, 1902, they were inoculated, one half intraperitoneally and the other under the skin of the left leg, with a culture of the bacillus tuberculosis of extremely mild virulence, standardized as follows: