The investigations of Stroebe, Arloing, Cournont, Nicolas, Spengler, Hahn, Baumgarten, Maragliano, Babes and Broca, Ferran, Niemann, McFarland, Petterson, von Behring, Dixon, Grancher, Ledoux-Lebard, Hericourt and Richot, Trudeau, McFadyean, and Schlegel are all referred to, more or less in detail. He then goes on to say that "Progress in this line did not occur until efforts were made to immunize animals against living tubercle bacilli by the use of living tubercle bacilli by Dixon in 1889," as published in the *Medical News* of October 19th, 1889.

In the *University Medical Bulletin* of April, 1905, Drs. Pearson and Gilliland published an article upon cattle infected with tuberculosis, giving a line of experiments which consisted in treating them by intravenous injections of a suspension of living human tubercle bacilli, the results of which went to prove a marked curative power of such treatment in young growing animals.

Dr. H. P. Ravenel's report after a visit to Maragliano's laboratory is to the effect that from a laboratory standpoint the experimenter has succeeded in producing a serum which protects experimental animals against the poisons of the tubercle bacillus. The curative value of this serum is not so well established. This latter view is supported by clinical reports on this subject presented by three members of the medical staff of the institute—Drs. Joseph Walsh, William H. Stanton, and H. R. Landis. Five cases were placed under treatment. As compared with other cases under observation at the same times, the results could not be said to be in favor of the serum treatment.

Dr. Ravenel refers to the fact that in the autumn of 1903 Dr. Alexander Marmorek, at that time connected with the Pasteur Institute in Paris, announced that he had produced a serum which was vaccinal and curative.

"The true toxin," he holds, "is formed by very young, or what he terms primitive, bacilli." This may be so, yet my work has demonstrated that the toxin is also produced by old or involuted or degenerated bacilli: therefore, if we fail to obtain a prophylactic serum and