

Later in the same year (1889) I delivered an address before the New Jersey Sanitary Association on the general subject of "tuberculosis," in which I stated that guinea pigs inoculated with this attenuated virus would "resist the action of virulent virus for months at least."

Professor Koch announced in August, 1890, that he had succeeded in developing a substance which had the power of preventing the growth of the tubercle bacillus in man. At that time, however, no hint was given of the method of preparation of the new substance.

On September 6th of the same year an article from my pen appeared in the *Medical and Surgical Reporter* of Philadelphia, in which, referring to my first announcement, I said:

"It will probably be interesting to the scientific world to know that the results published last October have been corroborated by a series of inoculations of the prepared virus into guinea pigs, rabbits, and opossums, after which they have resisted matter so virulent that all animals not previously inoculated with the changed virus took on tuberculosis when inoculated with such matter."

On November 15th, 1890, I announced through the *Philadelphia Times and Register* "That, following out the hypotheses advanced in my terse article in the *Medical News* of October, 1889, had given the most brilliant results."

Three days later I took occasion to lay before the Academy of Natural Sciences of Philadelphia a report summarizing more in detail my work of investigation on the tubercle bacillus in the bacteriological laboratory of the Academy, and stating that animals treated with the involution form of tubercle bacilli continued to resist injections of virulent bacilli.

Realizing the danger of introducing live tubercle bacilli into the human economy, I was with many others laboring to obtain the active principle that would produce immunity. To accomplish this, I submitted the tubes containing tuberculous bacillary growths to the action of ether, and also of a saturated solution of chloride of sodium. The mixtures were then passed through a Pasteur filter