

multiply outside the body, but live a wholly parasitic life.

They are destroyed by boiling, also by perchloride of mercury solution, and carbolic acid; but they resist the action of a 1 per 1000 solution of the perchloride, and a five per cent. solution of carbolic acid for some minutes. Drying does not kill the organisms.

Dr. Cornet, of Berlin, has been for two years investigating certain problems in the pathology and therapy of tuberculosis at the Hygienic Institute over which Prof. Koch presides, and a brief result of his work is given in a recent issue of a German medical publication.

The first series of investigations takes up the subject of the presence of the tubercle bacillus outside the body, or in other words, the study of infected localities.

The method employed was to rub down a supposed infected surface with a sterilized sponge, the dust and dirt collected was put in sterilized bouillon, and then injected into Guinea-pigs with proper precautions. Working as he did, under Prof. Koch, it is safe to admit that Dr. Cornet's methods and technique were trustworthy.

The injected animals were killed in about forty days after the inoculation, since within that time only the abdominal viscera can become infected.

In twenty-one wards of different hospitals in Berlin, which were exclusively or in part occupied by phthisical patients, the walls at the heads of the beds were treated in the way described. Fifteen of these wards were shown to contain infective tubercle bacilli.

Active tubercle bacilli were found in a Berlin hotel, in which a phthisical patient had been living, also in a room in which, six weeks before, a woman had died of phthisis.

Of ninety-four animals injected with this matter, fifty-three died with intercurrent diseases; of the remainder, twenty were tuberculous and twenty-two healthy.

The second part of his work is chiefly confirmatory of the observations of Prof. Koch, that the infecting bacilli enter by way of the lymphatics. In inhalation-tuberculosis the bronchial glands are the first affected; while in abdominal-tuberculosis, the mesenteric glands are the first to suffer.

The third part of his work takes up the therapeutical phase of the subject. His method, which

is not a new one, was to give animals certain drugs and then make inoculations of tubercle bacilli, watching to see if the tissues would be so modified by the internal medication as to retard or prevent the tuberculosis.

The animals used were Guinea-pigs and rabbits. The first experiments were with tannin, which was given in amount equal to about two ounces for a man weighing about 125 pounds. The animals became tuberculous in from twenty to thirty-four days. Other animals were given acetate of lead, pinguin, sulphuretted hydrogen water, menthol, corrosive sublimate, creolin, and creosote. They all died of tuberculosis in from twenty to ninety days. Twelve animals were infected with the tubercle bacilli, six of them were sent to Davos, six kept in the cages at the Hygienic Institute. They all died of phthisis and in about the same time.

These experiments were therefore entirely negative, and they go to show that the living body cannot be medicated so as to in any way modify the progress of tubercular disease.

First and foremost among the predisposing causes in the propagation of tuberculosis among bovines, is its hereditary tendency.

Dr. T. Henry Green says: "The influence of hereditary predisposition is so marked that it must necessarily occupy a prominent place in the pathology of phthisis. As to the nature of what is transmitted—although in quite exceptional cases this may possibly be the tubercle bacillus—speaking generally, it is in all probability, simply a tendency to the disease. It may be said that this tendency consists in some feebleness of the constitution in general, and often of the lungs and other organs in particular. As a result of this feebleness, there is usually a want of constitutional vigor, the power of resisting injurious influences is diminished, and the lungs and other organs and tissues which are especially weak, are in consequence abnormally liable to become inflamed. Further, this inherited weakness not only renders certain organs abnormally liable to inflammation, but also abnormally incapable of recovering from the effects of the inflammatory process."

According to Prof. Walley, hereditary tendency may be divided into direct and indirect; the former when it is transmitted by a sire or dam to its immediate progeny, the latter when only transmitted to the second or third generation, constitut-