

appears at the end of two to four days, as an ivory-white moist film. In this medium the progress of the growth was studied. Smears made from young cultures showed, not a spirocheta, but small, oval bodies, which, if stained with the Giemsa method, corresponded very closely in form and dimensions to *Cytoryctes luis* of Siegel. During the development of the organism the form changes to one resembling a trypanosome, and after a new series of modifications assumes the form of the *Spirocheta pallida*.

The Relationship between Tuberculosis of Man and of Animals.—The question of the communicability of bovine tuberculosis to man is discussed again and at length by RABINOWITSCH (*Arbeiten a. d. path. Inst. z. Berlin*, 1906, p. 365), who for some time has been interested in this problem. She has made a comparative study of thirty strains of tubercle bacilli. Twenty-five of these strains were isolated from twenty cases of tuberculosis in man, while five were obtained from perlsucht infections in animals. The organisms could not be differentiated from their morphological appearances, nor from their relative pathogenic action toward guinea-pigs, for which animals they were exceedingly virulent. The differentiating points rested in their biological characteristics, and their pathogenic action toward rabbits. On culture media the bacillus of human type grows much more rapidly and luxuriantly than the bacillus of perlsucht, while the latter type of organism possesses a much higher grade of virulence for rabbits than the human bacillus. Rabinowitsch considers that these differences are sufficient to warrant a separation of the two types of bacilli, though the question as to how widely removed they are is still questionable. The important result of the work comes out in the classification of the organisms obtained from the cases of human tuberculosis. From two of these twenty cases bacilli were obtained which had all the characteristics of the cultures from the tuberculosis of cattle. One of these was a case of primary intestinal tuberculosis, one a case of feeding tuberculosis in a child. Of six atypical strains which did not correspond with the human type and yet were not typical of the bovine type, two were from cases of primary intestinal tuberculosis, one from a questionable case of feeding tuberculosis, and three from cases of miliary tuberculosis. Besides these strains, a bacillus was obtained from the caseous nodules in the spleen from a case of miliary tuberculosis, which, in its cultural characteristics and pathogenic properties (extreme virulence toward chickens, particularly in feeding) should be considered the bacillus of avian tuberculosis. From the remaining eleven cases typical bacilli of human tuberculosis were obtained. Rabinowitsch concludes that the bacillus of bovine tuberculosis is pathogenic for man and may give rise to extensive lesions and a fatal infection.

Etiology and Diagnosis of Hydrophobia.—WILLIAMS and LOWDEN (*Jour. Infect. Diseases*, 1906, iii, 452) present an extensive study of the "Negri bodies" and their relation to hydrophobia. From a study of numerous infected animals, dogs, cats, and human beings, they find that the three tests used, namely, a search for the "bodies" in smears, a search in hardened tissues, and by inoculation, correspond to one another as to diagnostic results, and the bodies were always found when the biological test was positive. In all animals inoculated from the