

adherent to the cells were masses which projected into the bronchi. Various stages could be observed which led Fraenkel to conclude that the method of formation of the Curschmann spirals with gradual secretion of sticky mucus which remained adherent to the cells, and thereby the respiratory movement of air was whipped about until it assumed a spiral form. He believes that the central portion of the spiral, the nature of which has been in doubt, as the remnant of the body of the epithelial cell which has been stretched into a narrow and elongated form. Many eosinophiles were observed in the bronchial exudate. They were chiefly of a mononuclear character, a fact which has been observed previously in asthma-sputum.—*Philadelphia Medical Journal*.

Diphtheria Bacilli in the Mouths of Healthy Persons.

There is so much difference of opinion regarding the presence of diphtheria bacilli in the mouths of perfectly healthy individuals and of those attending patients sick with this disease that the work of Kober (*Zeitschrift für Hygiene und Infektionskrankheiten*, 1899, Vol. XXXI, p. 433), carried on in the laboratory of Professor Flügge, should be very gratefully received. These researches were carried on upon 128 persons who had come in contact with diphtheritics, and upon 600 persons who had not come in contact with those suffering from this disease.

In the cases in which the bacilli of Leoffler were found the diagnosis was based upon (1) growth on blood serum and microscopic examination at the end of six hours; (2) the double coloration of Neisser of cultures from nine to eighteen hours old; (3) testing the acidity, and (4) inoculation of guinea-pigs.

The results which Kober reached showed that the ideas usually held regarding the frequency of diphtheria bacilli in the mouths of healthy individuals are much exaggerated, for while the view has been generally held that the bacilli are present in the mouths of 7 per cent. of healthy individuals, Kober found them only in fifteen of his 600 cases examined, or 2.5 per cent. In ten of these fifteen cases the bacilli were not virulent. A minute inquiry showed that ten of these fifteen had recently come in contact with a focus of diphtheria, so that in reality the diphtheria bacillus is met with in the mouths of only .83 per cent of healthy persons who have not come in contact with diphtheritics. In the series of 123 cases that had come in contact with diphtheritics Kober found that in only ten, or in 8 per cent of the cases, were the bacilli to be found, although it has generally been supposed that this was so in 13.8 per cent. of all such cases. In these ten cases the bacilli were virulent.—*Maryland Med. Jour.*