

The bacilli have been found repeatedly in the sputa or spittle of consumptives, and physicians now habitually examine the sputa of patients with the microscope in order to diagnose the case or prove that it is one of tuberculosis, or otherwise. They have been found on the walls of rooms inhabited by consumptives, wherein the sputa had dried upon the floor and the sweepings had carried the germs into the air and to the walls; and they have even been found in the dried fly-specks on the windows of rooms inhabited by consumptives, where the flies had fed upon the sputa. The sputa have been pulverized and sprayed into the air and dogs compelled to breathe the air and have thus contracted the disease and died. It is recorded that, recently, when Tappeiner was performing these experiments on dogs, a robust servant, aged forty, laughed at the idea that consumption could be communicated in this way, and in spite of all warning went into the inhaling room, breathed the sputum dust, and caught the disease and died in fourteen weeks of consumption.

As bearing upon preventive measures, it is probable that this manner of infection, through the air passages by means of the dried secretions of diseased subjects, is of the first importance, but recently,

INFECTION BY SWALLOWING THE BACILLUS

With the food consumed, especially with the flesh and milk of tuberculous cows, has attracted a great deal of interest both on this continent and in Europe. The facts that cows are very prone to the disease, that a certain amount of relation has been observed between the mortality of bovines and that of human beings from consumption, and that the Jews who exercise such great care in the inspection of the meat they consume are exceptionably free from tuberculosis, are enough to give rise to a strong suspicion that the disease is not infrequently communicated to man by means of the flesh of infected animals being used as human food. Suspicion of this has given rise to a great deal of discussion, investigation, and a vast number of experiments, and it is now almost universally believed by good authorities that both the flesh and milk are a possible and even probable, if not common, source of the infection in the human body.

That tuberculosis could be communicated to the human body by means of the flesh of tuberculous animals used as food has evidently been suspected from the earliest records. There existed in the Mosaic laws strict legislative rules condemnatory of the flesh of an animal affected with the disease. The laws embodied in the "Mischna" (the oldest part of the Talmud) distinctly refer to the prohibition of the use of such flesh. From that time onward various ordinances have been instituted with the object of checking the use of consumptive flesh, especially in France and the German States, and even in Spain, Italy and Switzerland; and severe punishment has at different times been inflicted upon butchers and others who have wilfully sold such flesh for human food.

It has been argued that there is no direct proof of the transmission of tubercle from animals to man by the consumption of flesh and milk. Such proof, it need scarcely be said, urges Prof. Walley, of the Royal Veterinary College, Edinburgh, "cannot for manifest reasons be obtained, but the mass of indirect proof in favor of such supposition is enormous." He adds, very recently a most striking example of the effect of consuming the flesh of a tuberculous animal has been brought to light by a French physician in the case of a young woman who rapidly became consumptive as the result of eating the imperfectly cooked bodies of tuberculous fowls.

The question of the infection of tuberculosis being conveyed by milk is of greater importance than is infection by flesh, for the two-fold reason that the former is so largely consumed by infants, and generally in an uncooked state. The danger of contamination by milk will be more clearly comprehended when it is known that the tubercle bacillus can be readily detected in the lactiferous product