

the compression of the blood vessels of the neck by the tunic collar and by the kepi, which interfered with the proper circulation of the blood in the head and eye. In several countries the uniform was altered, and another headdress was adopted, but without effect.

The theory of contagion by noxious exhalations was being favoured when the role of the microbe was revealed by Pasteur. Sattler, in 1881, proved the infectious nature of trachoma by inoculating a granulation taken from a sufferer, into a blind person who voluntarily lent himself to the experiment; seven days later, his eyelid showed clear signs of trachoma. Since then numerous microbes have been found in the eyes of trachoma patients, but none of these discoveries have stood up under criticism.

In 1907, Prowaczek and Hellerstaedter at Java, noted in the granulations of a trachomatous person and in those of a monkey to which they had communicated the infection, cellular inclusions characteristic of the filtrable viruses, that is those agents which pass through filters so fine that their meshes withhold the smallest microbes. Among these filtrable viruses, whose nature is still mysterious from many points of view, are the germs of influenza, the common cold, vaccinia, smallpox, chickenpox, measles, german measles, mumps, rabies, exanthematic typhus fever, yellow fever, infantile paralysis, encephalitis lethargica, parrot fever (psittacosis), foot and mouth disease.

Finally, in 1910, A. Cuenod and Roger Nataf, at Tunis, furnished the proof that trachoma was due to one of these viruses. They even succeeded in transmitting trachoma to a monkey by placing beneath his conjunctiva the legs of flies which they had permitted to walk about for some time, in a tube containing some trachoma virus. This causative agent, destroyed by desiccation in half an hour, is not very resistant. Indeed, the cases of contamination which have occurred among doctors and nurses have almost always had their origin in the direct projection of trachomatous matter into their eyes during the treatment of a patient; and European soldiers and sailors do not contract this disease in trachoma regions unless they live with a native woman.

In order to become trachomatous, in the same way as to become leprous, in general one must be exposed to it constantly; for example, the small child with its mother, with a brother or sister, with a nursemaid, with playmates, or the husband with his wife—hence the name "trachoma of wedding-gifts" and "the gift of the wet-nurse." Or else a trauma in the eye must accompany the contamination. For example, wrestlers are almost all trachomatous. In rare instances, transmission may result from a momentary contact, like the case reported by Jean Sedan, of a French engineer and his wife making a short trip to Morocco and stopping exclusively in European hotels; or of an immigration agent who, in Alsace, used to handle the papers of Polish immigrants.

The means of infection are usually the fingers, a handkerchief, a towel, flies, and also in the Mussulman countries, the Kohl stick used to blacken the eyelids.

Various factors may predispose to the appearance of the disease; on one hand a generally weakened constitution, especially a deficiency of vitamins in the diet, which brings on what has been called "adenoidism" or

"lymphatism," namely a predisposition to adenoid growths in the throat, to inflammation of the tonsils and lymphatic ganglions; on the other hand, dust, sandstorms, rubbing or irritative handling of the eyelids. In this, as in every sphere of hygienic practice, cleanliness, a healthy and not overcrowded home and a well-balanced diet are the best guarantees of good health.

TUBERCULOSIS AMONG STUDENT NURSES.

A group of American doctors have been making a study of tuberculosis among students of nursing. The following is a summary quoted from the *American Journal of Nursing*.

"The students included in this report comprise 643 white females entering the training school from September, 1935, to September, 1939. Slightly more than a third of the students were from rural districts of less than 2,500 population, and an equal number were from cities of more than 100,000 population. The remaining students were from small towns and suburban communities. A fourth . . . were from Philadelphia.

"1. Periodic examination with the tuberculin test and fluoroscopy was given to 643 students of nursing at the Philadelphia General Hospital. A rapid rate of infection was noted. At the end of four months, 48 per cent. of those originally giving a negative reaction reacted to tuberculin, at the end of one year 85.9 per cent. reacted, and at the end of three years 100 per cent. reacted.

"2. A high incidence of pleurisy with effusion and of pulmonary infiltrations roentgenologically typical of tuberculosis was observed. The annual attack rate was 4.81 per cent., an incidence slightly higher than that reported in similar large general hospitals.

"3. Serious illness from tuberculosis, however, was not proportionately frequent, and no deaths occurred, presumably in part because of prompt treatment.

"4. Only slight differences in incidence and in anatomic character and distribution of tuberculosis as determined by roentgenologic examination were observed between students who had been tuberculin negative at the onset of observation and students who had been tuberculin positive on admission. Comparison of the subsequent clinical course of students in the two groups showed no difference in the proportions of progressive and retrogressive lesions.

"5. The development of a positive tuberculin reaction was associated with a high incidence of non-specific respiratory, gastro-intestinal, febrile and vague toxic illness, and with an especially high frequency of abdominal symptoms simulating appendicitis.

"Harold L. Israel, M.D.; H. W. Hetherington, M.D.; and John G. Ord, M.D.: "A Study of Tuberculosis Among Students of Nursing."

"THE AMERICAN JOURNAL OF NURSING."

The *American Journal of Nursing* is always a refresher, and we congratulate ourselves each time we lose ourselves in its variety of sections, containing as they do up-to-date matters of interest and instruction for nurses all over the world. From its first issue in October, 1900, we possess the whole file, and some day we hope to select a handsome and suitable binding, worthy of its contents, so that it may repose in its own cabinet, side by side with the 89 vols. of the *BRITISH JOURNAL OF NURSING*, as together they have recorded the History of Nursing for close on half a century. But for such expenditure the times are out of joint. Thus the binding of our *A.J.N.* must be a victory gift, and let us hope they may be found intact when that glorious day dawns.

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