

poison, and the duration of the exposure to it, modify the intensity of the symptoms and the course of the disease.

CONTAGION AND INCUBATION.

That the contagiousness of diphtheria should still be doubted is hardly possible, and still the public act as if it did not exist. One of the latest facts is that communicated by Trammer to the annual meeting of the Illinois State Medical Society, on May 18th, 1880 (Med. Rec., June 12th). In one school district, with 59 pupils, an epidemic was started (no cases having previously existed) by two boys who visited a neighboring community where there were cases of the disease. In a few days both boys had symptoms of cold, received some domestic treatment for their little fever, and sore throat, and soon returned to school, where other pupils complained of the offensive odor of their breath. Soon other cases appeared, and the number of persons attacked was 58, with 17 deaths.

That diphtheria is contagious is beyond doubt. The contagious element is directly communicated by the patient; it clings to solid and semi-solid bodies, and in this way is transmitted even after a long time. There is hardly any disease which can cling as tenaciously to dwellings and furniture; it can be transported by the air, though probably not to a great distance, and hence in houses artificially heated, while the windows and doors are mostly closed, rises from the lower to the upper stories, and it is for this reason advisable to keep the sick on the top floor. It is certainly transmitted by spoons, glasses, handkerchiefs, and towels used by the patient. The contagious character increases directly in proportion to the neglect of proper ventilation.

In regard to the length of the incubation period, there can be no better authenticated facts than those contained in a report of Dr. Elisha Harris to the National Board of Health, an abstract of which is found in No. 1, National Board of Health Bulletin, June 28th, 1879. The report says that, in the fourth school district of the township of Newark (Northern Vermont), amidst the steep hills, where reside a quiet people in

comfortable dwellings, the summer term of school opened on the 12th of May. Among the twenty-two little children who assembled in the school-room in the glen were two who had suffered from a mild attack of diphtheria in April, and one of them was, at the time school opened, suffering badly from what appeared to have been a relapse in the form of diphtheritic ophthalmia. Besides, it is proved that these recently sick pupils had not been well cleansed, one of them having on an unwashed garment that she had worn in all her sickness three weeks previously.

At the end of the third day of school, several of the children were complaining of sore throat, headache, and dizziness, and on the fourth day and evening so many were sick in the same way that the teacher and officers announced the school temporarily closed. By the end of the sixth day from school opening, sixteen of the twenty-two previously healthy children became seriously sick with symptoms of malignant diphtheria, and some were already dying. The teacher and six of the pupils were not attacked.

SUMMARY.

Diphtheria therefore is very contagious. Both the patient and his surroundings, dwelling, furniture, towels, etc., convey the disease. In dwellings it rises to the upper stories with the current of warm air. The poison clings mostly to mucous membranes. Mild cases may communicate serious ones and *vice versa*. The period of incubation lasts two days or more. It may last a fortnight. Fresh wounds do not require so long to be affected. In these cases the supposition is, that the patient was already influenced by the epidemic. Visible symptoms of diphtheria are often noticed after the constitutional ones.

THE HYGIENE OF FOOD.

THE BREAKFAST.

The breakfast is probably the most important meal of the day. Mr. Ernest Hart writes in reference to it, in the *Sanitary Record*, London, England, as follows:—