

MISCELLANEOUS NOTES AND EXTRACTS.

MOST RECENT FACTS ON DIPHtheria.

Upon the subject of diphtheria, Löffler is generally acknowledged as probably the highest authority. The following is a synopsis of what he knows of this disease. (In the Pacific Med. Record, translated from Correspond. Blatz fuer Sch. Aerzte). The cause of diphtheria is the diphtheria bacillus. It is found in the excretions of the diseased mucous membranes. The bacillus is expelled with the excretions, and may be deposited on anything in the neighborhood of the patient. Diphtheritic patients contain bacilli capable of infection as long as there is the least trace of diseased tegument in existence, and even for several days after their disappearance. Persons affected with diphtheria should be vigorously isolated as long as there are any bacilli present in their excretions. Children who have been affected with diphtheria should be kept from school for at least four weeks. The bacilli of diphtheria preserve their vitality for four or five months in particles of membrane in dry condition. For this reason, all objects which may have come into contact with the excretions of diphtheritics, such as linen, bedding, drinking and eating utensils, clothing of nurses, etc., should be disinfected by boiling water, or treatment with water vapor of 100° C. 240 F. Rooms which have been occupied by diphtheritics should be disinfected with the same carefulness. The flooring should be washed repeatedly with hot sublimate solution (1 : 1000), walls and furniture should be rubbed with bread. Investigation on the vitality of diphtheria bacilli in moist condition are not yet concluded. Possibly these bacilli preserve their vitality, when in moist condition, even longer than in dry condition. Humid and dark dwellings seem to be especially favorable to the preservation of diphtheritic virus. Such dwellings, therefore, have to be subjected to sanitary measures, especially in view of their thorough drying and accessibility of light and air. In moving from one house to another, great care should be taken for thorough disinfection of dwellings which have been infected. Diphtheria bacilli will continue to thrive outside the body at temperature of 20° C. 44 F. They grow very well in milk. For this reason the milk trade should be subjected to careful supervision. Lesions (slight injuries or abrasions) of the mucous membrane about the throat favor the attachment of the diphtheritic virus, while susceptible

individuals may be attacked by the disease without such lesions. During prevalence of diphtheria particular care should be bestowed on keeping the oral, nasal and guttural cavities of children perfectly clean. Besides this, prophylactic rinsings of the mouth and garglings with aromatic waters or weak sublimate solutions (1 : 10,000) are recommended for children. Any influence of determined meteorological elements favoring the spread of diphtheria has not been ascertained.

DETERIORATION OF WATER IN RESERVOIRS.

At a meeting of the New Jersey Sanitary Association, Mr. C. B. Brush dealt with the above named subject. He remarked that all water supplies are better at certain periods of the year than at others. In the hot, dry days the water becomes dead and lifeless, and if allowed to remain at rest for any considerable time, algæ formations appear on the surface. These, however, are destroyed and disappear as soon as the water is put in motion. If allowed to remain, the water cures itself—the algæ disappearing after a few weeks and leaving the water again in its normal condition. The algæ show themselves more quickly on water that has been filtered, either naturally or artificially. Water is delivered in its best condition when taken from a running stream and supplied directly to consumers without coming to rest during its passage. Water discolored by sediment is very often in its best condition, because the sediment is due to the fact that an abnormal volume of water is blown off from the watersheds, and any pollution there may be is so diluted as to be incapable of harm. But there is such a demand for clear water that reservoirs are necessitated, with their attending evils. Water that is stored for twenty or thirty days commences to deteriorate. This is due to stagnation, and the stagnation begins to manifest itself as soon as the oxygen in solution in the water becomes less than 0.3 per cent. The best means of preventing stagnation consists in keeping the water in motion, and there is no better way than by forcing air into the bottom of the reservoir, and keeping the water aerated. Mr. Brush gave an interesting account of his experience with a number of reservoirs where the water had become tainted in consequence of lying stagnant, and in every instance he obviated the difficulty by forcing air into the reservoir of the mains.