## DIPHTHERIA :- ITS HISTORY AND PREVENTION.

R. Thorne Thorne, M. B., F. R. C. P. Lond, F. F. S., Assistant Medica<sup>1</sup> Officer to the Local Government Board, etc., London, has recently given most valuable contributions to the knowledge on diphtheria, in the "Milroy Lectures" for 1891.

From the facts cited in these lectures (N. Y. Med. Jour.) we learn that during the past twenty years there has been a progressive increase in the rate of mortality from diphtheria in England and Wales, and that this increase is especially marked in urban populations, while formerly it had been most prevalent in rural districts, as we have before pointed out. This is particularly noticeable because this increase is contemporary with a constant improvement in municipal water supply, sewerage, and drainage in-urban districts, and with a decrease in the death rates from all other causes, from the group of zymotic diseases, and from enteric fever. The geological features of a locality seem to play no part in the causation of the disease, but the dampness of the place, as indicated by the height of the ground water, seems to foster and to Season has a decided influence, both upon the manifestation of enhance the mortality. diphtheria and the mortality. Beginning in September, the highest point is reached during October and November, and there is a gradual decrease during December and January, the smallest mortality occurring during May, June and July. "The greatest number of cases occurs between the ages of three and twelve years, and there is a slightly greater mortality among females than among males. The author attaches great weight to a prevalence of ill-defined throat illness before, during, and after an increase in the number of cases of diphtheria, and believes that in many of these cases there is a <sup>k</sup> progressive development of the property of infectiveness, culminating in a definite specific type which is indistinguishable from true diphtheria." Much evidence is adduced to show that diphtheria has often been conveyed through the medium of milk; and the fact that cows, as well as cats, can be inoculated with the bacillus diphtheriæ gives good ground for believing that the infectivity of milk is due to some disease of the cow. Accordingly, the author urges that raw milk should never be used, but that it should always be raised to a temperature of 155° F. and kept at that heat for at least six minutes. The author believes that teachers often receive convalescents into school at too early a date, and do not exclude children of the same family presenting incipient symptoms of illness, because the financial condition of the school or the teacher's salary is dependent upon the average attendance.

At the last meeting of the American Medical Association, Dr. J. Lewis Smith, New York's highest authority on diseases of children, read a paper before the section on these diseases, on the prophylaxis and treatment of diphtheira (N.Y. Med. Rec.). He said : Physicians undoubtedly conveyed the disease. They should always examine the fauces by standing behind or at the side of the patient, so that no ejected mucus may come upon them. After each visit they should wash thoroughly, in a sublimate solution, hands, face, and beard. Walking cases without fever, anorexia, or malaise diffused the disease. Daily inspection of the fauces of school children had been proposed. Convalescents should not mingle with healthy children for four weeks. He admitted the full claim of the Klebs-Loeffler bacillus to be the cause of the disease. It was a surface microbe, never penetrating the interior of the body, but attacking only mucous surfaces or cutaneous abrasions. It produces a ptomaine containing carbon, hydrogen, azote, sulphur, and oxygen, which by absorption through both blood- and lymph-channels causes the nephriticgranulo-fatty degeneration of heart muscle and paralysis. The treatment should embrace hygiene, diet and alcohol. Locally, NORMAL EPITHELIUM (healthy mucous covering) was a barrier to the germ's entrance, and hence remedies should be such as not to destroy the epithelial covering. Denuded or diseased surfaces were favorable starting-points for the disease.

In a recent editorial in the Therapeutic Gazette on this subject it is stated that: The contagion is exceedingly prone to cling to clothing, and the disease has in many instances been traced to this source. Fortunately, the contagion is of a very heavy nature, and is but little d.ff.sible. Physicians attending cases should scrupulously disinfect their persons and clothing.