

ing, particularly in such a case as that mentioned by Dr. Weiss, alcohol is an absolute, powerful and immediate specific. — *Va. Med. Semi-Monthly*.

EFFECTIVENESS OF ANTI-TOXIN IN THE TREATMENT OF DIPHTHERIA.

Dr. J. J. Kinyoun, United States Marine Hospital Service, in charge of the Bacteriological Laboratory at Washington, in an article published in the *Forum* for August, gives a lucid historical sketch of the progress and efficacy of the anti-toxin treatment of diphtheria. The treatment began to be used in the Berlin hospitals in 1894, and the first full year of the anti-toxin period was 1895. The following is the hospital record at Berlin for the years specified in cases of diphtheria and membranous croup, which latter disease has been found to be generally due to the diphtheria bacillus, and which consequently yields as readily to the anti-toxic treatment as diphtheria: 1892, 3,683 cases with 1,342 deaths; 1893, 4,315 cases with 1,637 deaths; 1894, 5,220 cases with 1,416 deaths; 1895, 6,105 cases with 987 deaths; 1896, 4,345 cases with 559 deaths; 1897, 3,723 cases with 546 deaths. The anti-toxin was used for three months only in two of the hospitals in 1894, and the death rate fell from 37.7 per cent. in 1893 to 27.1 per cent. In 1897 the death rate had fallen to 14.6 per cent.

In the Kaiserin Friedrich hospital, in 1894, the new treatment was used from March to September, and the mortality in all cases of diphtheria and croup was 15.6 per cent. From September to November no further supply of the serum could be obtained, and in that period the mortality rose to 48.8 per cent. Then a supply of serum came to hand, and on a resumption of the new treatment the mortality rate at once fell to the former percentage. This was a demonstration of its effectiveness which could not be explained away.

The Paris statistics do not give the whole number of cases treated, and we must judge from the number of reported deaths from the two diseases in question. From 1886 to 1893 the number of deaths averaged about 1,500 a year. In 1895, the first year in which anti-toxin was generally used, the number fell to 993; in the next year to 411; in 1897 to 444, and in 1898 to 274. The record of the London hospitals is not equal to that of Berlin and Paris, but there, too, the death rate has been greatly reduced. In New York during 1894 some 2,900 deaths from the two dis-