## THERAPEUTIC NOTES

Cough.—Sill (Am. Jour. Diseases of Children) has Whooping treated thirty-three cases of whooping cough with the pertussis vaccine. The effect of the vaccine was to diminish the number and severity of the paroxysms, as well as the amount of the vomiting. There were no untoward effects, nor any complications. The average length of time of cough was four and one-half weeks. injections were given every two or three days until the symptoms were relieved, and produced no swellings or abscess formation at the site of injection, and no general constitutional symptoms. milder cases it is not necessary to give so much nor so often. youngest child treated was one month, and the oldest six years, most being between six months and three years. The doses varied from twenty million bacteria, in the mild cases, to sixty million in the severe cases. The cases did better when the vaccine was given in moderately large doses every other day or two. Prophylactic treatment was administered in families where one child was affected, and none of these contracted the disease.

Meningitis.—S. Flexner (Jour of Exp. Med.) has Epidemic gathered his data from wide sources, and for a period extending over several years. Antimeningitis serum was first used in 1906, and the figures include 1912. The serum has been now established as the treatment, and still further diminution in mortality may be looked for. In his report, 1,300 cases are studied, although there were far more treated with the serum supplied by the Rockefeller Institute. Of 1,294 serum-treated patients, whose cases are subjected to analysis, 894 recovered, and 400 died—a mortality of 30.9 per cent. Fifty-six cases showed relapses at different intervals. In 30 per cent. of 830 recoveries permitting judgment as to termination of the disease, the termination was by crisis; of the 56 relapses, 40 recovered and 16 died. The number of permanently injured among the serum-treated is small, and of all sequels, deafness remains least influenced. The injury to the internal ear takes place early, sometimes before the diagnosis is established. arthropathies have been reduced, and the tendency to hydrocephalus in the young diminished.

Tonsillectomy.—R. Schreiber (Ther. der Gegenwart) describes R. Klapp's instrument, by which any general practitioner in his office can remove a tonsil with ease. In the sixty cases he has used