

the tonsils and soft palate we find patches of a greyish colored pseudo membrane and externally the submaxillary glands are felt to be hard and swollen. Then we have chills and fever accompanying. The temperature may be high, reaching 105° , or it may be only 99° , and in some cases it may even be subnormal. These latter, though, are rare. Accompanying this we have also quickened respiration and rapid pulse. A characteristic odor is also spoken of by some writers, but I have never detected it. With the membrane extending up into the soft palate, and the symptoms previously mentioned, we need have no hesitation in pronouncing the case diphtheria. To treat diphtheria successfully we must decide whether it is primarily a local or primarily a constitutional disease. I believe it to be primarily local. Holding this view I proceed, after having first had my patient put to bed (and the recumbent posture should always be maintained throughout the attack) and isolated so far as is possible, to treat it first by local applications in order to destroy the bacilli at the site of infection. This may be done by means of astringent and antiseptic solutions, used as gargles, spray or swab, as the case may require. A gargle I have found very useful composed of tinct. ferri mur., potas. chlor., glycerine and water. To be used every two hours. Or zinci sulph. may be substituted for the potas. chlor., or a wad of listerine and carbolic acid may be used, or the throat sprayed with peroxide of hydrogen solution. Internally, quinine in fair-sized doses, either in mixture or capsule, and if the heart shows signs of weakness I give stimulants and strychnia in small doses. I also give calomel in small doses, frequently repeated, until free catharsis results. Mercurial inhalations may be used with good results. This may be done by arranging a wire over an ordinary lamp and placing thereon a tin box lid with $\bar{3}$ ss. or $\bar{3}$ i. of calomel under an umbrella, over which and the patient a sheet is spread, and the patient allowed to inhale the vapor for ten or fifteen minutes, repeated every three or four hours.

Now, as to antitoxine. We have had this remedy before us since 1890, when Behring told us of its effects in rendering animals immune in diphtheria. He described his experiments with guinea-pigs, in a paper read in 1891 before the International Congress of Hygiene at London. Commencing with guinea-pigs, Wernicke then secured immunity in sheep and Aronson in dogs. Then oxen were tried, but with unsatisfactory results. Then, in order to secure larger quantities of serum, it was tried on horses, and finding that immunity could be transferred they were adopted, and are at present utilized. There are several preparations of this solution in the market, but in Berlin, from whence we get most of our reports, Behring's and