## THE TREATMENT OF WOUNDS IN WAR.

By Sir W. Watson Cheyne.—The frequency of sepsis in the wounds is remarkable. Aseptic methods fail utterly in times of war because wounded men cannot be attended to at once, often not for many hours. During the interval, their wounds almost invariably become infected, and in the case of land troops frequently either with the tetanus or the aerogenes bacillus or both. All wounds except those inflicted by rifle bullets are in general extensive and the parts are severely torn and bruised. The infectious material is often actually driven into the wound under these conditions. Two different courses of treatment must be followed, depending upon the freshness of the wound. When seen within twenty-four hours—exceptionally even within forty-eight hours—after the injury, an attempt must be made chemically to destroy the infectious agents present. For this purpose only one antiseptic has been proved of great value, namely, phenol. The most effective method of procedure consists in the thorough primary cleansing of the skin about the wound by ether soap and one to twenty solution of phenol. The wound is then covered with gauze saturated with the phenol solution; the badly soiled fragments of tissue are removed, the wound is enlarged if necessary to give access to all its recesses, and hemostasis secured. In an extremity bleeding may be stopped by a tourniquet, in the trunk, by application of hemostatic forceps and firm plugging with gauze. When this is accomplished, the entire cavity is to be swabbed out thoroughly with liquefied phenol, being sure that the drug reaches every small recess. Recesses may be washed out with the one to twenty solution and the application repeated. The tourniquet is then released, in the case of an extremity, and the ends of the bleeding vessels are clamped and tied off. In trun kwounds the clamps are removed, one at a time, the bleeding vessel touched with liquefied phenol, a fresh clamp applied, and the vessel ligated. The wound should then be dressed with antiseptic gauze, the best being salicylic acid gauze, with a layer of cyanide gauze next the skin to protect it. By this method the wound is completely sterilized; growth of pathogenic organisms in the dressings, which are soon saturated with discharges, is prevented by the antiseptic. In wounds more than twenty-four to forty-eight hours old sterilization cannot be made complete by any method of local applications. In these cases the use of strong antiseptics and the mechanical removal of any considerable amount of tissue are contraindicated, as they tend to break down the natural barriers which have formed. Instead, continuous irrigation with sterile normal saline solution is the best of all methods, and drainage should be established by means of open rubber tubes, counter openings being