

## INVENTIONS I HAVE SEEN DURING THE WAR.

BY MISS MARGARET STUART-NAIRNE, F.F.N.C.

(Continued from page 311.)

*The Dakin and Carrell Systems of Wound Irrigation.*—Almost all nurses have become familiar with the Dakin system of continuous irrigation of septic wounds by the Dakin solution, containing lime and bicarbonate of soda. The Carrell treatment is carried out in the same way, with an ampoule containing the solution suspended above the patient's bed, and a system of tubing leading to the wounds requiring irrigation. The flow through the tubing is controlled by a clip, which is opened at intervals, or so adjusted that the solution flows through in very small quantities continuously. One of the inconveniences attached to the treatment is the fact that the beds are apt to become inundated in spite of mackintosh protections.

I saw this difficulty coped with in a large hospital in Paris, where the Carrell treatment was carried out with great success. In the bed of each patient a tray, with fairly high sides, large enough to reach from one side of the bed to the other, was placed under the area to be irrigated. On top of this was placed a square or oblong air-cushion, made with several holes, to permit fluid to run through into the tray underneath, the whole contrivance being covered with a draw-sheet. At stated intervals the patient was lifted up by nurses or orderlies, the tray withdrawn, emptied into a pail, and rinsed, the cushion sponged with disinfectant, and the draw-sheet changed. This performance took place with remarkable dexterity and quickness, with the minimum of discomfort to the patient. In this way it was possible to carry out the treatment with very little dressing on the wounds, thick packing being not only unnecessary, but inadvisable. These patients had merely a slight gauze dressing, held in position by a sterilised pad, which was safety-pinned over, and had no bandages whatever.

*Blake's Splints.*—These were very much used during the war in France, some ambulances being actually installed to deal with fractures alone by the Blake method. This consists of an arrangement of scaffolding and pulleys and sandbags, by means of which fractures were kept in position whilst swinging free of the bed. Many advantages were gained by this method, amongst them being the difference in comfort to the patient, and the ease with which the beds could be made. In some cases the patient was even able to stand or sit out by the side of his

bed to have it made, without any difference taking place in the pull on his splint.

*The Ambrine Treatment for Burns.*—This is a wonderful discovery, which was made more than a dozen years ago, and came into its own during the war. Splendid work was done with it in the treatment of extensive and superficial burns on gassed soldiers, as well as burns from different causes on civilians. Ambrine is a wax-like substance which is melted down, and painted on the burned surface with an ordinary small camelhair brush. In very serious cases it is sprayed on instead of being painted. In order to obtain the best results, the treatment must be done very meticulously.

The burn is first gently irrigated with tepid boracic solution or sterile water, and the wet surface is then dried, preferably with hot air. (No moisture whatever must be left, otherwise the temperature of the water is raised when the hot ambrine is applied, and the burn is aggravated, as the ambrine retains its heat for a long time.) A thin coating of ambrine is then applied, and covered with a layer of cotton-wool so thin that it is transparent. This, in turn, is painted over with ambrine, which hardens as it is applied. No gauze is put on these dressings, which are finished off with ordinary squares of absorbent cotton, followed by non-absorbent cotton, held in place by bandages.

The amount of ambrine used, and also the thickness of the packing, depend altogether on the state of the wound, and this is a matter which has to be very carefully observed by the person who does the dressing. For this reason it is almost necessary for the same person to do the same dressings each day, in order to remark any difference in their condition. A serious wound requires a substantial dressing, and a very thick packing, in order to retain the ambrine at a high temperature as long as possible; a superficial wound, or one that is almost cured, does well with a very slight dressing. Serious wounds are dressed twice a day, then once a day, then every two days, and so on.

Frequently a gas-burn which appeared to be slight proved to be profound, and a large slough made its appearance after one or two applications of ambrine. In such a case the ambrine was discontinued, and fomentations applied until the slough came away, when the ambrine was continued again. Occasionally a burn which seemed obstinate in healing showed a particular coloration after some time, and for such cases also fomentations were resorted to until the wound was considered to be in a fit state for the re-application of the ambrine. A

[previous page](#)

[next page](#)