## WOUND INFECTION IN WAR SURGERY.

## By Miss Amy Phipps.

## III.-COMPOUND FRACTURES.

(Concluded from page 403.)

The treatment of compound fractures, which in many cases have been terrible smashes of tissue and bone, have taxed surgical skill to the uttermost, in the effort to save an apparently hopeless limb.

Here one has to aim at immobilisation, and at the same time make possible the efficient dressing of extensive wounds, with the minimum of pain. And, needless to say, each case must be treated on its own merits. For many fractures, there is in use at this hospital an exaggeration of the "Balkan" arrangement for swinging a limb by means of a wooden "four-poster" bandaged to the bedstead, across which are fitted horizontal bars; attached to the latter are reels, and from these the leg or arm is slung by cords, the extension being applied in the usual way from the foot or elbow; in wounds of the body, the same apparatus enables the patient to get ease from the bed. In this way, wounds can be dressed practically without movement of the limb; for the same reason, fracture boards are often made on firm supports, a foot or more deep, to bring the patient more in a line with the surgeon or other dresser.

The "Wallace-Maybury" extension splint is also largely used, either suspended or otherwise. In the same way plaster splints, with windows facing the wounds, are much employed; these, however, need careful watching, as pressure sores are very liable to form and extend with alarming rapidity. The plaster edges round the wound should be bound with rubber adhesive, to prevent soiling from discharges.

Where adhesive plaster cannot be borne for applying extension, an apparatus may be made quite simply with a double layer of strong calico, with a hole in the centre; between these layers, and round the wound, is a piece of coarse rubber tubing to prevent pressure. Through this hole the foot passes, and extension is applied in the usual way by buckle and strap from the sides. This is not suitable for fractured femurs, where much extension is necessary.

The methods of applying plaster of Paris are numerous. Splints are largely applied with malleable, but strong, iron supports, again reinforced with strong plaster bands; also shapes made of several layers of book muslin, soaked in plaster cream, to fit the parts, and twisted rope supports of the same. Various

devices for the prevention or remedy of drop foot are used, one of the simplest being a support of strong malleable iron wire, encased in rubber tubing, a "T" shape piece of which passes between the toes, and the main portion passed to the leg, to which it is bandaged.

All appliances are made by a volunteer nonprofessional carpenter from England, who also acts as orderly in the hospital. As far as pressing work will permit, all that can be done to effect a permanent and entire cure, such as nerve suture, massage, and electrical treatment is carried out, though in many cases such patients have to be sent into the interior to make room for the exigencies which an emergency hospital close to the line of action is called upon to meet.

## AN INTERESTING CASE.

On May 1st, 1916, the following interesting case was admitted into wards :---

K. B., a male, aged 46 years, was admitted with a history of having swallowed a foreign body—a stick about  $\frac{1}{2}$  in. thick and about 10 in. long, a month before, and had had pain in the abdomen ever since. Pain felt all over the abdomen, but more severe in the upper half, with a burning sensation. The patient was cleaning his teeth with the stick usually used by the natives of India for this purpose. The stick slipped from his hand down the gullet, and he has felt pain ever since. A distinct swelling, about the size of a moderate fist, rather elongated, is felt in the right hypocondriac region. All this time no vomiting, and he could digest his food. Skiagram taken with no result.

16.5.16.—Operated on—laparatomy.

After he was well under chloroform, the stomach was washed out with the stomach pump. An incision was made about three inches parallel to the middle line, and about two inches away from it. The skin and various layers of fascia were incised, and the muscle below was seen œdematous. This too was incised. The abdominal wall in this locality was densely adherent to the viscera. These adhesions were at first left intact. With the finger the stick could be felt in the stomach: while drawing that viscus out, the stick broke. A small incision was made on the surface of the stomach near its pyloric end. The two pieces of stick were taken out, and so also was the bark. This opening was closed with fine catgut sutures. Some pus was seen in the adhesions. These were broken down and the pus carefully swabbed out. The pus had a foul smell. When these adhesions were sufficiently broken down,



