A SPECIAL CRUTCH FOR MEN WHO HAVE LOST BOTH AN ARM AND A LEG.

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THE accompanying illustrations show a crutch designed by me for a man who has suffered a double amputation (Figs. 1 and 2). He has lost the left leg below the knee, and the left arm at the surgical neck of the humerus, so that there is no axilla capable of bearing weight on that side. The appliance enables a man so disabled to move about either while he is waiting to have an artificial leg fitted or when he is tired of using the new leg.

FIG. 1.—Crutch for loss of left leg and left arm; the patient standing beside it.

FIG. 2.—The patient using the crutch.

The appliance consists of two crutches of the bifurcated type morticed into one axillary piece in the form of the letter A. The crutch, on the side on which the leg is lost, slopes more than that on the sound side and its timbers are morticed inside the latter (Fig. 3). Cross-bars of wood complete the horizontal part of the letter A, but project to the outer side of the more sloping crutch to form, with a curved aluminium plate, a shelf on which the man places his flexed leg stump. The two crutches are braced together above, and a steel wire truss takes up the side strain on the more sloping crutch. A handle is fitted in the usual place on the sound side. The legs of the crutch are two feet apart at their base.

In use the man places his stump on the shelf and swings

his sound leg between the crutch legs. No weight need be borne on the axilla of the sound side.

The total height of the appliance should be at least two inches less than that of ordinary crutches intended for a man of the same height. This is necessary to enable the man, by fully straightening his sound leg, to lift the crutch forward clear of the ground. A man with only one hand can stand on the appliance and remove his hand from the handle to open a door, or use his hand for other purposes. If the patient has lost an arm on the opposite side to the leg, the handle is placed outside the stump shelf, the axillary piece of the crutch being on the armless side, not necessarily carrying any weight.

Both types are being used in the Duke of Connaught's Hospital for Limbless Soldiers at Bray, co. Wicklow, for

FIG. 3.—Crutch for loss of left leg and either arm.

FIG. 4.—Extemporized crutch for loss of left leg and either arm.

double amputations as well as for cases of crutch paralysis.

For emergency work the appliance may be rapidly constructed, as shown in Fig. 4, by lashing together two strong bifurcated crutches with the head of one crutch below the other; a few pieces of timber lashed crosswise serve to brace them firmly and by their projecting ends to form the shelf. Vertical pieces of timber lashed from the shelf to the foot of the more sloping crutch relieve the side strain.

It is made by Messrs. Smith and Sheppard, of St. Stephen's Green, Dublin, in its various forms, and the following measurements should be given: Height from sound axilla to ground, height from sound axilla to middle of sound hand, height from perineum to ground, and state which arm and leg are lost.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TOXIC JAUNDICE: ATROPHY OF LIVER: REGENERATION AND RECOVERY.

THE observations of Dr. Crawford (p. 450) on the recuperation of the liver tissue after an attack of toxic jaundice caused by the action of T.N.T., agree closely with those which I have been able to gather at another big filling factory.

Of the number of cases reported since notification came into force we have 33 still remaining at work with us. Ten of these were notified erroneously and there is doubt as to the nature of a further three; but the remaining twenty were apparently cases of true toxic jaundice. I have made a full examination of all these within the last six weeks. I am not able to say in every case to what extent the area of liver dullness was diminished during the attack, as in the early days of the factory the patients were allowed to go to their own homes about the country for treatment; but when I made this examination, from six to eighteen months after their return to work, the fact was marked that they did not show diminution in the area of liver dullness nor interference with nutrition or the digestive functions.

The most noticeable thing about some of the cases is that though the liver seems to have recovered they show signs of deterioration of heart muscle, with inability to undergo sustained exertion, and general signs of heart distress—in fact, they present the same picture as those workers who have suffered from severe toxæmia without jaundice, and my experience here is that those workers who recover from toxic jaundice do not afterwards suffer from damage to the liver function so much as they do from degeneration of heart muscle. I feel that the toxæmia is the general affection, and that jaundice is an accidental symptom in certain cases, determined by some at present unknown cause in certain of the victims of toxæmia. One very general feature is the complaint for the first few months after convalescence of pain in the right side, either over the liver area—front or back—or in the abdomen just to the right of the umbilicus.

I note with interest Dr. Crawford's statement that in her cases the motions were not completely bile-free; this, to my mind, should be a common sign in toxic jaundice, owing to the fact that some of the liver tissue is operative, and that the bile ducts are not occluded. My experiences also coincide with Dr. Crawford's statement that cyanosis is not a necessary antecedent to toxic jaundice, many cases showing no signs of it when the first tinge of yellow showed in the sclerotics.

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