A USEFUL SPLINT FOR COMPOUND FRACTURES OF THE LEG.

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THE splint that I am here describing has been of such signal service to me in the treatment of certain compound fractures of the tibia and fibula due to gunshot or shell wounds that I venture to publish it for the use of other surgeons if they think fit.

For simple fractures of the tibia alone, or for compound ones with a small anterior wound and little displacement, the service pattern McIntyre is hard to beat, but in bad compound fractures of both bones, with large and septic wounds fore and aft, none of the ordinary splints is of much use when one is aiming at efficient drainage with early immobilization, and when daily dressing is a necessity. I therefore improvised the following arrangement out of any available pieces of wood; it is designed to provide for any extension necessary in view of overriding of the fragments, to support the leg in a comfortable position, to immobilize the broken bones, and, above all, to allow free access to the wounds without moving the limb. The slings may or may not be necessary according to the amount of extension. One pair of extension straps is bound to the upper part of the leg, and, passing round the central ends of the uprights D, D', is fixed to the screws J, on the outer sides of D D'; the other, pulling from below, pass through the foot board B, after being attached to a foot-piece, and are tied around one or more pieces, which, acting as a wedge, render increase or decrease of tension possible.

- A, Piece of stout board 6 in. wide, 2 ft. 8 in. long.
B, Piece of board 7 in. or 8 in. wide, 14 in. high, pierced by two slots, through which pass the extension straps.
C, C', Two upright pieces of thinner board placed one on each side of the foot and serving (1) to keep the foot in a perpendicular position, if necessary; (2) to support a horizontal heel-piece H; and (3) to strengthen B against the pull of the extension.
D, D', Pieces of stout board about 9 in. wide, 13 in. high, and 6 in. apart, firmly fixed to A, and supporting between them the double inclined plane E, F, G, made of thinner wood; the slope of F, G, is less marked than that of E, F; F, G, also projects 2 in. or 3 in. from the edge of D.

M from above.

B from below.

- H, A small piece of wood for the support of the heel, though the heel scarcely needs any.
I, A small block to support E, F, thus allowing A to be a little shorter than would otherwise be necessary, which may be an advantage.
J, A screw or other means of fastening the upper extension straps after bringing them round the proximal margins of D, D'.

K, The fastening or knot of the distal extension straps or plaster around a wedge-shaped or straight piece of wood L.

M, A strip of wood, about 21 in. long, shaped like a T square, attached to B by a screw P, so that it can be turned out of the way when it is desired to apply or remove the splint. The T end rests on the top of D, D', and is attached to them by loose nails or hooks.

From M one or more slings can be hung to support the leg at any point; it also serves to keep D, D', firm.

N, A piece of wood 15 in. or so long, attached to the base of B to keep the splint from tumbling or leaning to one or other side.

O, Foot-piece.

The drawing of a patient with the splint applied I publish by kind permission of Colonel G. B. Irvine, I.M.S., commanding No. 9 Indian General Hospital.

A STAGING TO FACILITATE DRAINAGE AND CONTINUOUS IRRIGATION.

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IN the memorandum on the "Treatment of bacterial infection of projectile wounds" by Colonel F. E. Burghard, A.M.S., and others, published in the JOURNAL of April 24th, a passage at the conclusion of the article reads: "And clearly, so long as a wound is heavily infected, the ideal method of treatment, if only it were always practicable, would be immersion in a bath, or continuous irrigation with some aseptic or mildly antiseptic fluid."

With a view to making continuous irrigation of a wound practicable, no matter in what part of the body that wound may be, the staging now described has been devised. It will be understood that the staging can only be properly utilized if the mattress is so shaped and arranged as to co-operate with the staging.

If a shoulder or leg is to be irrigated a $\frac{3}{4}$ mattress will be required; for the buttocks, pelvis, or back the mattress should be transversely divided. The military mattress in its three sections can be readily adapted to any necessary position. In order to obtain sufficient space underneath the staging it may be necessary to place one mattress on the top of the other.

The staging is made as simple as possible. It consists of an oblong frame resting on four telescopic legs. Movable transverse bars, 2 in. wide, support the part of the body that needs irrigating or draining. For supporting the buttocks special bars are made. These transverse bars are provided with vertical detachable splint bars for the purpose of fixing a limb if necessary. Only one set of splint bars is shown in the sketch. Extension can be applied from the end of the frame.

A deep tray hooks on underneath the frame, and is placed wherever it is required. It is provided with a stopcock, and if the fluid discharged into it is excessive it can then be passed on by means of rubber tubing into a further receptacle under the bed.

The legs rest upon fracture boards, and can be adjusted to enable the frame to be raised or lowered or tilted at an angle.

The advantages claimed for the staging are:

1. Free continued irrigation can be carried on in any part of the body.
2. An entire avoidance of heavy dressings and "pus poultices."
3. Free drainage from dependent parts.