

the swelling has subsided, which takes place from five days to a week, the following dressing is applied: A posterior splint is made of two thicknesses of bleached Canton flannel, strengthened in the middle, under the knee, by two extra layers; this is made long enough to reach from a little above the ankle to above the middle of the thigh, and wide enough to cover two-thirds of the circumference of the limb above and below the joint, but at the joint it should only just cover the condyles of the femur. Two pieces of Canton flannel, of from two and a half to three inches in width, double thickness, one long enough nearly to encircle the limb at the ankle, the other to encircle it at the upper third of the thigh, are prepared at the same time. The pieces designed for the posterior splint are then thoroughly saturated in a mixture of plaster-of-Paris and water, taking care that the mixture is not too thick, and then smoothed out upon a board with the hand, and applied smoothly to the limb. Then the two bands are prepared in the same way and applied around the upper and lower extremities to hold it in position. A dry roller bandage is then firmly applied over all, and the plaster allowed to set.

As soon as this is accomplished the bandage is removed, and we have a firm posterior splint, secured above and below by transverse bands. Two other strips, of a double thickness of Canton flannel an inch wide, and long enough to overlap on the posterior surface of the splint, are saturated in a fresh mixture of plaster-of-Paris and then tightly applied above and below the patella, while the fragments are held in position by an assistant, in the same manner as adhesive straps are used for coaptation in this fracture. A dry roller bandage is then rapidly applied with the figure-of-eight turns over the strips. The surgeon then, with thumb and finger of each hand over these coaptation bands, forces the fragments into close approximation, and holds them there until the plaster has set (Fig. 1). The bandage is then removed and a fresh one applied over the whole length of the limb. The dressing is then complete. Fig. 2 shows the splint with the bandage removed. It is a good plan for the surgeon, before applying the coaptation bands, to see that the fragments can be easily approximated. In a number of cases I have found some difficulty in keeping the fragments in the same plane, or in preventing them from tilting, there being a tendency for one to rise above the other. This can be overcome by making pressure with the fingers over the line of fracture while waiting for the bands to harden.

*This dressing differs essentially from all others, in that the fragments are adjusted by the hands of the surgeon, and the "setting" of the plaster keeps them in the exact position in which they were held.* The patient is not compelled to keep his bed, but may sit up or go about on crutches with but little

inconvenience. This apparatus, like all plaster-of-Paris splints, should be applied directly against the skin, care being taken, however, to remove the hair, or else smear the limb with cosmoline or oil.

The condition of the fragments can now be examined at any time by simply removing the bandage, and in case any separation has taken place in consequence of the shrinkage of the limb, it can be corrected by removing the coaptation bands and applying new ones. Care should be taken, if this becomes necessary, which is seldom the case, to moisten the posterior splint in order to insure the adherence of the new pieces.

Pressure sores have never been produced in my experience, nor have the patients ever complained of any pain caused by undue tightness of the dress-



FIG. 1.

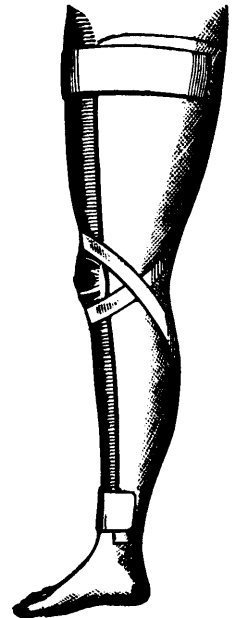


FIG. 2.

ing. In fact, constriction of the limb by the splint, bands, or bandages, so as to interfere with the circulation, cannot occur, even in inexperienced hands. In order to prevent a rough edge at the upper and lower extremities of the splint, it is advisable to fold them over about half an inch, thus bringing a perfectly smooth edge in contact with the soft parts. This dressing should be left on for from six to eight weeks. The majority of patients rarely have any appreciable separation of the fragments at the end of the treatment, but as the union is generally ligamentous, a certain amount of separation will take place in time, as in all cases in which there is not bony union.

A case that I treated ten years ago, by this method, came under my notice again a few weeks since; the fragments, which after the treatment were