

In a case of hemorrhage from the intercostal artery, from homicidal stabbing, I arrested the flow immediately by making pressure within the pleural cavity, directly on the vessel, by introducing into the wound the handle of a door-key. The key was then turned transversely, so as to make direct pressure, and maintained in that position for some hours, until there was no more tendency to hemorrhage. The same mechanical action might be effected by the similar use of the handle of an ordinary gimlet.

As a very efficient substitute for Esmarch's elastic bandage, I suggested some years ago, in an article in the *Philadelphia Medical Times*, the use of a bandage made from ordinary flannel, cut bias, so as to increase its elasticity. Such an elastic bandage, from a material almost everywhere at hand, is, I know from experience, perfectly effective.

The hemostatic action of hot water does not seem to be sufficiently known and appreciated among practitioners. It is so effective, and can be so readily applied, that it may well displace from practice all other hemostatics. Water at a temperature not beyond tolerance of the immersion of the hand in it, which is a temperature of one hundred and fifteen to one hundred and twenty degrees, is ordinarily all that is necessary; but in some cases not amenable to treatment by ligature, a temperature above 160° F., the coagulating point of albumen, may be necessary.

The absence of a tenaculum may be well replaced by a small fish-hook secured to a pen-holder.

For dislodging a foreign body in the œsophagus by forcing it downward, an ordinary carriage or riding whip, knotted far enough from the end to insure the proper degree of flexibility, may be an efficient expedient in an emergency.

Materials for splints for the temporary dressing of fractures can be at almost all times extemporized from the materials of wooden boxes and binders' boards. To dress fracture of the forearm and of the leg, in a case required to be removed to a distance from the scene of the accident, I once improvised an efficient dressing by breaking into strips some ordinary palm-leaf fans, which were at hand, and bound them on the limbs. I commend the material for its merits of being elastic and conformable to the shape of the limb. Good temporary dressings can also be made from common straw, cut to proper length and bound in layers on the limb.

For a readily made fixed dressing, a plan I have resorted to is with ordinary sand-paper as the material. The sand-paper is dipped into warm water, to soften the paper and glue, and it is then applied and retained with a bandage. The glue of the sand-paper soon gives rigidity; body and firmness are produced by the sand and paper. Strong fixed dressing, it should be remembered, can be readily prepared and with the familiar domestic commodities of starch, or with the combination of eggs and flour.

In removing a patient with a fractured thigh or leg, the uninjured limb can be made to temporarily act as a splint and take care of the injured one, by simply bandaging the limbs together. It should be borne in mind that many fractures of the long bones can be well treated without any kind of splints. Fractures of the femur are now generally treated with splints. After coaptation is effected, simple extension, by means of weights, is the only essential. Fractures of the clavicle are, I am convinced, from practical experience and much attention to the subject, the most effectively treated by keeping the patient in the supine position of the body, with the head alone slightly elevated, to relax the sternomastoid muscle, one of the factors of displacements of the fragments. If this position, on a level mattress, is maintained for only a week or ten days, the tendency to displacements is so overcome that a mere sling for support of the arm and shoulder, or other simple dressing, is all that is necessary.

The simple postural method of treatment, without splints, is applicable to most fractures in the vicinity of joints. In fractures of the upper end of the humerus, splints are usually of no real practical advantage, and the injury can be well treated by position of the arm, and by support against the thorax, maintained by adhesive strips, or bandages, occasionally aided by an axillary pad.

The usual fracture of the lower end of the radius, transverse in direction and produced by a fall on the extended palm of the hand, if properly reduced by longitudinal traction and forced flexion of the wrist and hand, has rarely a tendency to displacement if the wrist and hand are maintained in a state of moderate flexion without the use of any splint.

The ordinary splint, applied on the outside of a fractured jaw, is mechanically inefficient for the object, and has no advantage over an ordinary bandage, or handkerchief, applied to keep the part at rest.

Many surgical instruments are made after traditionally complicated forms. Scalpels, bistouries, and needles should not be crooked. I know of no use for curved knives, and the occasions for the use of curved needles may be limited to a few plastic procedures in cavities. The ordinary surgical needle, with its absurd and inconvenient curve, I long ago discarded in favor of the more efficient, simple and cheap glover's needles. A good surgical needle can be readily made from an ordinary sewing needle, broken off above its point and grounds to such an oblique point as is given to the hollow needle of the hypodermic syringe.

A common gimlet is an efficient instrument for opening the mastoid cells, in cases of abscess, when there is grave threatening of cerebral complication, demanding prompt action.

The patient use of a carpenter's rasp may safely substitute the trephine, in cases of fractured skull,