Elementary Anatomy.

AS APPLIED TO NURSING.

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LECTURE I.

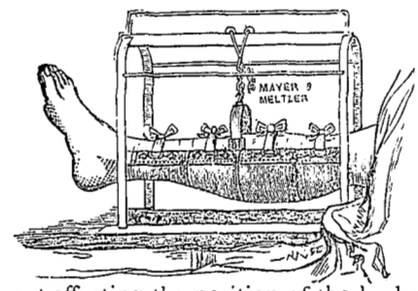
(Continued from page 44.)

IF the fracture is compound, the skin over the injured part is, as we said before, torn to a greater or less extent, and in this form the injury is very much more serious to the patient than when the skin is unbroken, because it is a matter of general experience that compound fractures are much more often dangerous than those which are not exposed to the air. This is a general rule which may be stated dogmatically now, and you may take it upon trust; hereafter we shall see the reason for this difference in the severity of two apparently almost identical injuries, so far as the bones themselves are concerned.

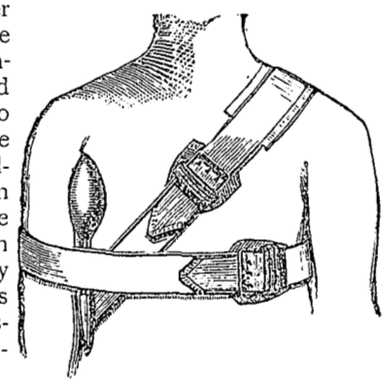
Now, inasmuch as it is clear that the broken ends of the bones jogging amongst the muscles, nerves, and bloodvessels will tear with their sharp points these delicate tissues, it becomes a matter of the first importance that fractures should be attended to immediately; because, for example, a simple ordinary fracture can cause a fatal result by tearing across the vessels in its vicinity, a good example, by the way, of a fracture which is termed *complicated.* In the treatment of fractures, therefore, the golden rule is to *fix the broken limb as soon as possible;* and it is in these accidents that there have been obtained some excellent results from the instruction given in the First Aid Class of St. John's Ambulance Association, and other similar teaching bodies. For instance, an experienced bystander can confer inestimable benefit upon the sufferer, with a fractured limb, by tying his stick or umbrella, with pocket handkerchiefs, along the course of the injured bone, thereby fixing it firmly above and below the fracture—in other words, carrying out for the immediate moment the precise treatment which the surgeon will afterwards more carefully adopt; and, as a measure of precaution, preventing the movements of the fractured ends, which, as we have seen, may be so productive of danger, or, at any rate, of injury to the patient. As a general rule the Nurse does not see the patient until coincidently with the surgeon's treatment, and then finds that the upper part of the broken limb requires to be firmly held while the surgeon draws the lower part steadily down with the fingers of one hand placed over the seat of fracture until he has brought the broken ends into exact apposition with each other. When that is accomplished, splints such as those shown in this illustration, are placed upon each side of the limb and secured

above and below the fracture with strapping, so to render the fragments immobile, and then fina secured with a bandage.

A good illustration of the method of treating a fractured *tibia* and *fibula* is given in this diagram, the splint being swung upon a cradle so that the clothes are kept off the broken limb and the patient can more easily move without affecting the position of the broken fragments.



Every fracture needs its appropriate splints, and these may be more conveniently described altogether in a future Lecture—but there is one fracture which, as a rule, requires no splint at all, viz.: that of the *clavicle.* In this the ends of the bones are brought together by placing a large pad in the armpit of the affected side so as to push out the shoulder, the elbow being drawn back and to the side and fixed in that position by belts or bandages as is well illustrated in this engraving.*



We will imagine that a patient with a fractured leg has been thus treated, and that we have the power to look through the skin and tissues down to the bone, and watch the manner in which Nature will repair the injury. The first thing we observe is that the blood which has come from the broken vessels, in and about the bone and periosteum, clots all round the broken ends, while between the broken surfaces of the bone exudes a milky fluid, which we term *lymph.* After watching this, we

*For these illustrations the author is indebted to Messrs. Mayer & Meltzer the well-known surgical instrument makers.

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