

this fact, after the reparative processes are complete, the practitioner or surgeon may be unjustly blamed, or be compelled to defend a malpractice suit, for the presence of a defect or deformity for which the processes of nature, and not he, are responsible.

The very means which have been employed to bring the over-riding fragments of a broken femur into apposition—bandage-pressure, the splint, the weight, extension or counter-extension—though necessary appliances to obviate a greater evil, each and a by pressure, interfere with the circulation of the limb, and its fixation disturbs normal nutritive processes. The protracted inaction necessary in the fracture of a femur causes an arrest of growth in children

Not long since, Prof. A. M. Phelps, in a series of experiments on the lower animal, demonstrated that a healthy joint could bear immobilization with impunity. With the limb in its entirety, however—the muscular, neural and osseous structures—it is quite different. Any pathological condition involving a limited area of a limb of a child, be it of a constitutional or traumatic character, attended with inflammation entailing articular and muscular inaction, is as a rule attended not only with atropho-motor paralysis, but likewise with arrest of growth. So that on careful measurement it will be found that the sound limb has gained on the diseased to a marked extent. When the limb is confined but a short period the difference will be slight. It is a well-known fact that during the growing stages of the body, an attack of sickness or confinement, rendered necessary by injury, the body suddenly lengthens out, so that as the patient takes his feet his gain in stature is usually marked and noticed by everyone. Perhaps the fresh impetus imparted to the sound side on rest in bed, with temporary arrest of developmental processes on the injured side, in cases of femoral fractures and other injuries of the lower extremities in children, may account for the differences in length after processes of repair are complete. This explains what had long been a mystery to me in cases of femoral fracture in children who had marked shortening when they recovered; yet, when the fractures were in the lower third of the shaft and subperiosteal, and when the fragments were brought into perfect apposition, and on recovery the perfect outline of the shaft was evident from an examination of its external outline, still there was a shortening of from one-quarter to an inch. When we finally encountered numerous cases of simple injury at the hip, followed by myositis or arthritis without any lesion of