bone at all, but which after recovery left the patient with a shortened limb, though with full functional use, the difficulties in etiology became greater than ever.

There can be scarcely a doubt that many cases of malpractice have been instituted in that class of fracture—cases in which the deformity or shortening resulting was often in part, if not wholly, dependent on atrophic vaso-motor changes, temporarily disturbing nutritive processes and thereby arresting growth, rather than solely by an osseous distortion of any description whatever.

The essence of pathological changes in those cases of motor-atrophy accompanied with an arrest of growth, is neuropathic: an enervation induced in the first place by a propagation of inflammation from the muscle to the nerve. The nervous system in early life must serve a dual purpose. First, to preside over the normal nutrition, and secondly, to supply the necessary pabulum in normal growth and development.

In those cases marked by an arrest of growth, the second or temporary function is only in abeyance. But in those neurotrophic manifestations, so common in disorganizing injuries, in which the visible gross lesions are chiefly arthritic or osseous, the temporary or permanent pathological changes present a complexity and diversity of phases. These will be more readily comprehended if divided into groups

The first will embrace those cases in which after the injury of a joint there is an absolute arrest of growth involving the entire limb, and in which trophic inhibition is the most positive neural symptom, i.e., though the limb has temporarily ceased to grow, mobility is not wholly arrested, and though certain muscle groups, single muscles, or parts of a muscle, may be wanting in reflex response to the will, none will resist electrical irritation. And furthermore, though in time functional restoration has returned, and the local disease has vanished, yet on a critical inspection of the joint (if one of a complexity of motion as the hip, shoulder or wrist) it will be noted that there is a want of uniformity in the strength and mobility of certain sets of muscles, and likewise a marked disparity in their contour and consistence, thereby, at least for a time, giving the limb below (if the leg) a distorted inclination—a partly flexed, adducted, abducted or rotatory position, which, however, in time with appropriate treatment, or even without treatment, in healthy subjects may be corrected by a later full development of the enfeebled parts, or by a com-