The flexor longus digitorum also passes from the back of the leg behind the inner malleolus beneath the internal angular ligament, and forward to its insertion into the toes. The peroneous longus arising from the outer side of the leg passing downward behind the external malleolus beneath the external angular ligament to the outer border of the foot, changes its position, and through a groove in the cuboid bone it passes obliquely inward and forward across the sole of the foot to its insertion near the inner border of the sole, into the base of the first meta-tarsal bone and the internal cuneiform. This muscle acts, (1) to extend the ankle joint; (2) to adduct the anterior part of the foot; (3) to depress the inner border and so to evert the sole. By drawing backward and outward the base of the first meta-tarsal bone, it tends to render more concave the antero-posterior and transverse arches of the foot. Thus while in part of its action it tends to oppose the tibial muscles, on the other hand, it assists them in maintaining the longitudinal arch. The tendo Achillis, by which the powerful muscles forming the calf of the leg are inserted into the posterior end of the oscalcis, raises the heel from the ground lifting the weight of the body, and slightly adducting the foot and inverting the sole. The latter motion occurring at the joint between the astragalus and the calcaneum.

Pathological Anatomy.[1]—The various abnormal positions assumed by the foot, and thus constituting its deformities are only exaggerations of positions which are normal and physiological.

There are four main divisions made of the deformities of the foot:

(1) Talipes equinus—exaggerated extension.
(2) Talipes calcaneus—exaggerated flexion.
(3) Talipes varus—exaggerated adduction.
(4) Talipes valgus—exaggerated abduction.

It is seldom that any one of these exists alone, It is generally associated in some degree with another form, for example the equinus and varus which when combined constitute the ordinary club-foot, also calcaneous and vulgus are frequently associated. The term club-foot is generally employed to designate the combination of an excessive degree of extension and adduction. This deformity may be defined as consisting of inversion, torsion and depression of the front part of the foot accompanied by elevation of the heel so that when the subject of deformity is in the erect position the outer border of the anterior portion of the foot alone constitutes the walking surface. The plantar surface is not directed downward but in a varying degree backward and upward. The degree of severity of the deformity will depend upon the amount of exaggeration of positions that are in themselves normal. This is the most common deformity of the foot constituting about three-quarters of all cases, and is mostly congenital. In a typical case all the structures of the foot, bones, ligaments, muscles, fasciæ and skin take part in the distortion.

The deformity is not alone one of the foot proper but has also to do with the relationship of the foot to the leg, and even the leg bones in strongly marked cases are abnormal through relative shortening of the tibia, especially of its inner border, while the fibula at its lower end occupies a plain anterior to the normal, so that a line joining the centres of the malleoli looks anterior and is directed more inward than in the normal condition The scaphoid bone is found articulating with the inner surface rather than with the anterior end of the head of the astragalus, and in some cases an articular facet is found on the scaphoid where it articulates with the tibia and there is frequently a firm ligamentous attachment between the scaphoid and the inner malleolus

FIG. 2.—A case, 10 yrs. old, corrected by tenotomy.