

was struck by the fact that the process on the posterior border of the astragalus varies very much in different bones. In some it is almost absent, whilst in others it is very well marked, sometimes overhanging the os calcis considerably, and measuring three-fifths to half an inch in length. The attachment of the posterior fasciculus of the external lateral ligament also varies in extent; in some cases the whole ligament, or one strong strand of it, is attached to this process; in others it is attached to quite a large portion of the posterior and external border as well. This variety in the process and attachment of the ligament would, of course, influence greatly the production of the fracture. I also noticed, that when the groove for the tendon of the flexor longus hallucis muscle was deep the process was prominent, and *vice versa*.

May not this fracture account for some cases of sprained ankles which are so slow to recover, and which occasionally leave permanent lameness, or at any rate weakness? In such cases as I have described, it is probable that any motion of the foot (as flexion and twisting out) which puts the posterior peroneo-tarsal ligament on the stretch would be painful. Some may say that this is not a fracture at all, but merely an example of an ununited epiphysis, as is seen occasionally in the acromion process of the scapula. I have thought of this, and discarded the theory for the simple reason that in the astragalus there is only one ossific centre, viz., in the body of the bone. I have never yet seen, in the numerous examinations I have made of the astragalus in new-born children, a special centre for this process. Again, if it were an epiphysis, there would of necessity be a layer of cartilage between this process and the main bone. Dr. Ino Neill, in the *American Journal of Medical Science of 1849*, describes a fracture of the posterior extremity of the astragalus found in a dissecting-room subject. In this case, however, there was great deformity, with dislocation of the anterior portion forwards; the tibia was forced down between the fragments, and greatly separated them. The fractured portion consisted of the whole posterior border, and included the groove for the flexor longus hallucis.

*Note.*—Since writing the above, an astragalus (right) has come into my possession, in which the process on the posterior border has been broken off, and bony union has taken place.