In the third case the whole process is not broken off, but only a part of it. As in the first case, the fragment is united with the main bone by fibrous tissue. This specimen was found in the left astragalus of a woman, aged about sixty, whose bones had undergone fatty degeneration.

In all three cases there was no history, and no deformity was made out before dissection. The joints were perfectly healthy looking.

Supposing that this fracture was produced by some twist of the foot, I performed a number of experiments on the cadaver to endeavour to find out the cause. By flexing the foot, the posterior fasciculus of the external lateral ligament is put on the stretch; the tension is still greater when the foot is flexed and twisted out. In every case where this manœuvre was performed I failed, even when the greatest force was used, to break off the little process of bone mentioned above. If the subject was old, and the bones porous, the tip of the internal malleolus was torn off, and if the action was continued, the fibular attachment of the external lateral ligament. If the subject was a young adult, the tip of the internal malleolus was not broken, but the internal lateral ligament was torn away from it; and if the action was continued, the external lateral ligament was torn away from either its fibular or astragaloid attachment. The process of bone external to the groove for the flexor longus hallucis was never broken off, but always remained intact. Thinking that perhaps the fracture might be caused by jumping from a height, and landing on the heels with the foot flexed, and perhaps twisted out, I, in order to simulate this (imperfectly, I must admit), sawed several limbs across below the knee, and, flexing the foot applied force from above by means of a large mallet. Out of five trials I did not succeed once in fracturing the process to which the posterior peroneo-tarsal ligament is attached, but once fractured the sustentaculum tali of the os calcis. That I was unable to produce this fracture does not disprove that it might be caused by a twist of the foot in jumping or otherwise, as I could but very imperfectly imitate the accident as it would occur during life. The sudden twist of the foot, and the force of the weight of the body, with its great leverage, would be difficult to imitate.

Whilst pursuing my investigations in regard to this subject, I