

bone somewhat resembles that of the analogous bone in those fishes, such as the perch and gurnard, cod and haddock, which have their ventrals suspended to the scapular belt; but its position in the Cromarty specimen, and that of the ventrals in the various specimens of the Cœlacanth family in which their place is still shown, forbids the supposition that *it* was so suspended, — a circumstance in keeping with all the existing geological evidence on the subject, which agrees in indicating, that of the low type of fishes that have, monster-like, their *feet* attached to their necks, the Old Red Sandstone does not afford a trace. This inferior type, now by far the most prevalent in the ichthyic division of the animal kingdom, does not seem to have been introduced until near the close of the Secondary period, long after the fish had been degraded from its primal place in the fore front of creation. In one of my specimens a few fragments of the rays are preserved, (fig.

43, *b*.) They are about the eighth part of an inch in diameter; depressed in some cases in the centre, as *ii*, over the internal hollow formed by the decay of the cartilaginous centre, the bony crust of which they are composed had given way; and, like the rays of the thornback, they are thickened at the joints,

and at the processes by which they were attached to the ischiatic base. It may be proper, I should here state, that of some of the internal bones figured above I have no better evidence that they belonged to the *Asterolepis*, than that they occur in the same beds with the dermal plates which bear the characteristic star-like markings, — that they are of very considerable size, — and that they formed no part of the known fishes of the formation.

Fig. 43.



*a.* Single joint of ray of Thornback.

*b.* Single joint of ray of *Asterolepis*.