

Eyes.

The enormous magnitude of the eye of the Ichthyosaurus (Pl. 10, Fig. 1, 2), is among the most remarkable peculiarities in the structure of this animal. From the quantity of light admitted in consequence of its prodigious size, it must have possessed very great powers of vision; we have also evidence that it had both microscopic and telescopic properties. We find on the front of the orbital cavity in which this eye was lodged, a circular series of petrified thin bony plates, ranged around a central aperture, where once was placed the pupil; the form and thickness of each of these plates very much resembles that of the scales of an artichoke (Pl. 10, Fig. 3). This compound circle of bony plates, does not occur in fishes; but is found in the eyes of many birds,* as well as of Turtles,

* The bony sclerotic of the Ichthyosaurus approaches to the form of the bony circle in the eye of the Golden Eagle (Pl. 10, Fig. 5); one of its uses in each case being to vary the sphere of distinct vision, in order to descry their prey at long or short distances. These bony plates also assist to maintain the prominent position of the front of the eye, which is so remarkable in birds. In Owls, whose nocturnal habits render distant vision impossible, Mr. Yarrel observes, that the bony circle (Pl. 10, Fig. 4), is concave, and elongated forwards, so that the front of the eye is placed at the end of a long tube, and thus projects beyond the loose and downy feathers of the head; he adds; "The *extent* of vision enjoyed by the Falcons is probably denied to the Owls, but their more spherical lens and corresponding cornea give them an *intensity* better suited to the opacity of the medium in which they are required to exercise this