

The endocranium (seen in Pl. XII. figs. 1-3, cleared of the investing bones, and palatine membrane bones) is a very remarkable structure, extremely large behind, reduced to a vertical plate with alæ in the middle, and enlarging into a pillow-shaped, double pouch in front. This form would not be so remarkable if the eyeballs were retained in the figures, with the capsules of the ears and nose; they are indicated in the sectional views.

There is a large synchondrosial tract, to be lessened afterwards, between the basi-occipital and basisphenoidal regions (*b.o., b.s.*), and the lateral parts of the latter are still unossified; in the adult there is only this one bone in the posterior sphenoidal sclerotome, and none in the anterior.

The basisphenoid is formed as an ossification of the end of the notochordal sheath, of the contiguous parts of the investing mass, running upwards as the post-clinoid wall, and of the newly-coalesced ends of the trabeculæ and intertrabecula, up the bottom of the deep notch behind the common optic foramen (Pl. XII. figs. 1, 2, 3, *b.s.*). The internal carotid arteries find their way into the "sella" between these outer and middle bars, and the bony substance growing well around them, makes the bone strong beneath the pituitary body, for there is no open space left there; the cupped "sella turcica" (Pl. XII. fig. 3, *py.*) is only imperfect below where the arteries enter.

Below (fig. 2, *b.s.*), the bone is thick and trilobate, growing backwards towards the basioccipital, and outwards towards the quadratè and tympanic cavity; above (fig. 3), the squarish bony mass is notched, right and left, to form the large foramen ovale (5).

Between these two endocranial regions—the occipital and posterior sphenoidal—the large ovoidal auditory organs (*au.*) are imbedded. Seen from the inside (Pl. XI. fig. 2), they present the appearance of a trimerous, syncarpous fruit, the three bony centres—prootic, epiotic, and opisthotic (*pro., ep., op.*) giving them this likeness; between these there is a wide triradiate synchondrosis.

The sigmoid crest or selvedge running down in front is the remains of the alisphenoid (*al.s.*), a deep chink behind separates the mass from the occipital wall (*e.o.*); a shallower groove divides the capsule from the basal plate, whose sphenio-occipital synchondrosis runs from side to side uniting the right and left stems of the triradiate periotic cartilage.

On account of the large size of the occipital roof, and its far growth forward, the epiotic (*ep.*) forms the upper piece, and the prootic (*pro.*), which is almost twice as large, lies below as well as in front; this bone is perforated by the branches of the last pre-auditory nerve, the facial (7), with its specialised dorsal branch, the auditory (8), also in front, the prootic is notched by the trigeminal (5).

The opisthotic (*op.*) is intermediate in size between the other two; it is an exactly posterior shell, triangular within, but, behind, growing out into the paraoccipital wing, where it always appears as a large distinct bone when the skull is looked at externally.