

The thick chondrifying capsule of the ear (*au.*) is cut through horizontally in this preparation so as to show the junction of the anterior and posterior canals (*a.s.c.*, *p.s.c.*), and the two ends of the horizontal canal (*h.s.c.*)

Between each ear-capsule and the skin there is a large sulcus or ditch; this runs forwards into a large oval hole, just outside the trigeminal nerve (fig. 5; 5); the sulcus is the tympanic cavity, and the hole the "Eustachian tube"; both of these are parts of the first post-oral cleft (Pl. I. fig. 7, *cl.* 1).

The hind basin is short and wide, but the front basin is egg-shaped, with the broad end in front and the narrow end behind. But this narrow end dips largely, and there it is open below (*py.*); a little further forwards it is perforated on each side for the large optic nerves (2), and quite at the fore edge the olfactory nerves (1) pass out, and grow downwards and backwards over the nasal space or cleft.

Between the optic nerves and olfactory sacs the basin has cartilaginous sides, the orbito-sphenoids (*o.s.*); and after a while this cartilage will bridge over the space where the trigeminal nerves run out and connect the orbito-sphenoids to the post-pituitary wall by a temporary alisphenoidal band.

The middle part is taken up by three cartilages, the *trabeculæ* and *intertrabecula*; here the chondrification corresponds very exactly to my first stage in the Selachian (Trans. Zool. Soc., vol. x. pl. xxxv. figs. 3 and 5, *tr.*). But there the middle part is still soft, and it has not become definite along the middle in the interocular region; in the Turtle the three bars are coeval.

The lateral bars are like those of the Tadpole (Batrachia, part 2, Phil. Trans., 1876, pl. lv.); but there the middle one develops slowly, and in three distinct parts, ultimately uniting the symmetrical bars.

In the Tadpole the thin flat intertrabecular floor of the orbital region chondrifies first; then the meso-ethmoidal wall, and lastly, the anterior space between the cornua trabeculæ, where in some kinds ("Hylidæ"), it sends forth a well-formed "prenasal rostrum."

In the Axolotl ("Urodeles," Phil. Trans., 1877, pls. xxii., xxiii.) the trabeculæ gradually grow up to the frontal wall, and then become fused together in the inter-nasal space.

But in the larva of *Seironota* (*Ibid.*, pl. xxix. figs. 1, 2) they sooner reach the fore part of the head; in all the "Urodeles" the intertrabecular cartilage is but feebly developed, and that merely as a conjugation of the trabeculæ in the nasal region.

Altogether, whether we compare these things in the Turtle with types below or above, the intertrabecula has in it a unique development as to relative size and continuity, and in its early appearance, contemporaneously with the paired bars (trabeculæ).

All the three rods are nearly circular in section at present (fig. 10), but this is a very temporary state of things, for they all soon grow into vertically compressed plates, and the