

At present, it has only half covered this tract, and, at present, the epiotic is separated from the superoccipital by a tract of cartilage; soon, it alone, loses its independence by ankylosis with the superoccipital. The upper surface of the auditory capsule (Pl. XII. figs. 1, 3) is convex and shelving, and is confluent with the chondrocranium, its three canals are seen above the hollow quadrate (*q.*). Below (Pl. XI. fig. 3, and Pl. XII. fig. 2) it is somewhat scooped, and is bifenestrate, for there we find the fenestra ovalis and rotunda (*f.o.*, *f.r.*); the former, filled with the stapedial plate (*st.*), and the latter leading to the rudimentary cochlea.

Behind, a double passage exists for the ninth and tenth nerves (9, 10). The epiotic lies over the junction of the anterior and posterior canals. The prootic takes in part of the horizontal, as well as most of the anterior canal; the opisthotic covers most of the posterior canal, and sends a process downwards between the two fenestræ.

Passing forwards we encounter no more bone (either now or afterwards) in the chondrocranium. The orbito-nasal septum is presphenoidal behind, ethmoidal in the middle, and naso-septal in front. The hinder part, or anterior sphenoid, is as large as the other two together. The orbito-sphenoids (Pl. XII. figs. 1 and 3, *o.s.*) form together a sub-cordate leaf of cartilage, half folded at the mid-rib, and with its base behind. The nasal sacs form a bilobate pouch, each half of which opens into a short lateral tube in front, projecting like the horns of a Snail, half protruded; the tube is a continuous (non-distinct) "outer supero-labial." Below (Pl. XII. fig. 2), the septum nasi is seen as the common bond of the two pouches; it enlarges in front between the two pairs of nerve passages, and there becomes the hooked "prenasal" (*s.n.*, *p.n.*). Above, where the olfactory nerves are entering (fig. 3, 1, *eth.*), there is a triangular flap looking backwards, like that of a Bird's chondrocranium (Phil. Trans., 1869, pl. lxxxiii. fig. 2, *eth.*), which is the rudiment of the "tegmen cranii," so largely developed in fishes. From its point to the projection on the superoccipital, behind, all the roof is a membranous fontanelle, re-roofed with the great membrane bones.

Many of these things will be seen better in the sections yet to be described, which also show some rudiments of what are manifestly pre-oral visceral arches. The hindmost rudiments of this kind are the "epipterygoids" (Pl. XII. figs. 1, 3, *e.pg.*), which are now largely ossified, and quite detached from the pedicle of the quadrate (*q.*, *pd.*); their relation to the pterygoids is shown in fig. 1, where the latter bones are shown, laterally, in outline.

Leaving the antorbital visceral rudiments for the present (there are no "pro-rhinals"), I come, now, to the post-oral arches.

The upper element of the first of these, the quadrate (*q.*), takes up one-third of the side of the skull, and is greatly modified from its primary, simple state, as a supra-mandibular segment or "suspensorium."

The Amphibian regions of this part come out again here, namely, the "pedicle" and