

the "otic process;" the former (*pd.*) is a mere spike always unossified at its tip, and touching the top of the epipterygoid with which it was continuous.

The latter (*ot.p.*) forms an almost circular dome-like vestibule to the "middle ear," and this part is largely unossified as yet. The main stem of the bone, however, is seen on its inner face to be solid and phalangiform, and largely ossified, the condyloid lower articular facet, and the convex part above, which articulates with the ear-capsule, are still, and indeed, permanently, soft; to the rim of this hollow "porch of the ear," the very Batrachian cartilaginous "annulus tympanicus" is attached, and in its notch the orbicular "extrastapedial" fits (Pl. XII. fig. 1, *a.ty.,e.st.*). This latter part is, as I have already shown, the distal end of the "epi-hyal" element, and the proximal end is the "mediostapedial," or stem of the "columella," whose base is the true periotic stapes (*st.*). The axis of each mandible (*mk.*) is still confluent with its fellow of the opposite side, and is wholly unossified. The shaft of the columella (*co.*), and the shaft of the cerato-hyal (Pl. XI. fig. 7, *c.hy.*) are both more extended than in the last, and the hypo-hyal is shorter and more bulbous; the "basi-hyo-branchial" (Pl. XI. fig. 7, *b.hy.,b.br.*) gives off an unossified glosso-hyal spike in front, and a pair of hypo-branchials (*h.br.*) are articulated to its projecting lobes behind.

#### *Transversely Vertical Sections of the Head.*

A description of these slices will complete what I have to say of this ripe stage.

*First Section.*—This section (Pl. XII. fig. 4) is made through the fore margin of the thick premaxillaries (*px.*) and the external nostrils (*e.n.*) The alinasal tubes (*al.n.*) are cut through, which are, essentially the same as the separate narial valves of the Frog, formed out of the external segment of the large upper labials. The narrowness of the face downwards is here shown, and the flatness of the face above.

*Second Section.*—The next section (Pl. XII. fig. 5) takes in the fore part of the nasal capsule (*n.w.*) as well as the alinasal valve (*al.n.*), and on this front part the prenasal (*p.n.*) is shown, growing almost directly downwards. This extension of the skull base serves here as a model for the premaxillaries, as in the Birds, but in these the prenasal soon loses this downward direction, and grows forwards as in Selachians, in both cases the "pro-rhinals" are either suppressed, or but slightly developed, as a rule.

*Third Section.*—Here (fig. 6) there are four passages (*e.n.,n.c.*), for the nasal pouches lie beneath the alinasal outlets in front. Above, the alinasal has passed into the aliseptal lamina (*al.sp.*); below, the nasal floor (*n.f.*) is seen to bind upon the hinder part of the prenasal spike (*p.n.*). The nasal septum (*s.n.*) does not reach the base at this part, nor is the beginning of the aliseptal lamina continuous with the nasal wall and floor (*n.f.*). The latter cartilage is now protected, externally, by the fore edge of the maxillary (*mx.*), and the hollow of the palate has begun, as shown in the space between the premaxillaries (*px.*).