

ends of the once free trabeculæ (*tr.*), has begun to ensheath the intertrabecula (*i.tr.*), which is, manifestly, the prochordal homologue of the perichordal sheath, now hardened into the "cephalostyle." The prepituitary part of the basisphenoidal region is marked off from the presphenoidal region by a shallow notch directly in front of the pituitary body (*py.*).

At present, however, the hinder part of the existing wings of cartilage in the orbital region (figs. 1, 2, *o.s.*) are due somewhat to incomplete absorption of the alisphenoids; they are not quite reduced to their minimum development until after hatching; they always exist as a sharp edge to the auditory capsule in front.

From the pituitary space to the frontal wall there is one large plate of unossified cartilage (fig. 1, *p.s.,s.n.*), formed originally from the upgrowing of the trabeculæ and intertrabecula. This plate is thick below and subcarinate, the middle-piece dipping below the side-pieces; an oblique thickening divides the interorbital from the inter-nasal region, and in front the septum nasi—formed in all but its hinder part of the middle cartilage—sends downwards a short "prenasal" spike (*p.n.*). The orbito-sphenoidal wings (*o.s.*) are very large, having as yet an alisphenoidal selvedge behind; they form a trough in which the "hemispheres" lie. In front of these "wings" the olfactory nerves (1) burrow downwards into the nasal sacs, and these latter are covered over with the aliseptal growths of cartilage (fig. 4, *al.sp.*); in fig. 1 this roof is cut away in the part brought into view.

The quadrate (*q.*) is still quite unossified, and the epipterygoid (fig. 7, *e.pg.*) has not been segmented from it, but lies as a sigmoid process of the pedicle (*pd.*) in a groove of the pterygoid bone (*pg.*). The rest of the cartilage (*q.*) from where the base of the pedicle ends, is arched, hollowed, and notched, a thick ridge margining the arched part and running down the middle of the articular part on its outside. The condyle of the articular part (fig. 3, *q.c.*) is bilobate and transversely placed, the thick ridge on its outside passing into the semicircular ridge for the attachment of the "cartilaginous annulus" (fig. 10); between its hind extremity and the articular part there is a large, rounded, inferior notch, which admits the columella into this curious tympanic cavity, formed by the scooping of the huge "otic process" (*ot.p.*) of this cartilage—the mandibular pier. The next "pier" is specialised for auditory purposes, as the columella, and foregoes its hyoidean (or lingual) functions (figs. 2, 3, 5, 8, 9, *co.*).

The dorsal end pushes into the fenestra ovalis (*f.o.*), the membranous operculum of which acquires a cartilaginous character, but its cells are thin, lunate, and concentrically arranged, as in the sheath of the cranial notochord; those of the rod itself are the normal ovoidal corpuscles (fig. 9). Here I find a greater separateness of the stapedia plate from the "mediostapedial" rod (fig. 9, *m.st.,st.*) than in any other "Sauropsidan." The rod itself is ossified largely; the bony matter will reach farther outwards, and the proximal plate also will become ossified. Its Batrachian condition is best seen now.