

acquired its proper Chelonian characters; it was more like that of a Batrachian in the last stage.

The roof is open up to the occipital ring (*s.o.*); the sides are continuously cartilaginous (*al.s.,o.s.*); the hind part of the base (*b.s.,b.o.*) is very deep; and the fore part of the base arises now from the top of a steep wall, the orbito-nasal septum (*p.e.,s.n.*).

This sectional vertical view shows a chondrocranium quite similar to that of the chick near the end of the first week of incubation (Phil. Trans., 1869, pl. lxxxii. fig. 3), for at that time the prognathism of the Fowl's face is only just beginning; and if the premaxillaries existed then they would be vertical, and not almost horizontal, a direction they possess in the bird very early.

The composition of the hollow posterior, and vertical anterior, basal parts will be largely illustrated by other views (sectional); the fore part of the nasal septum shows a small pre-nasal rod directed downwards; the "alæ" or shelving side-walls are well seen in this view.

As in the embryo Whale¹ and Pig (Phil. Trans., 1874, pl. xxxiv. fig. 6) the orbito-sphenoids (*o.s.*) are very large, and a lesser fold of cartilage is continued from them along the sides of the cavity for the mid-brain, and unites with the top of the ear-capsule; this is the large "alisphenoid" (*al.s.*).

The orbito-sphenoids are notched by the optic nerve (2) postero-inferiorly, and the alisphenoids similarly by the trigeminal nerve (5); these latter "wings" are buttressed on their inner side by the dilated ends of the huge "post-clinoid wall" (*p.cl.*).

This "wall" is due to the enfolded form of the embryonic head, but as the parachordal cartilages stop short above, and do not follow the folding of the mid-brain, they of course only form a single plate thus ending free above.

We shall see that the median tracts of the basis cranii do, in some degree, become folded over; but the paired cartilages stop above, and begin again below; there is, therefore, a hiatus in the chondrocranial floor, which, where it begins its prochordal growth, below and in front, is a sort of added part, or outgrowth of the primary basal tracts, which would, normally, end where the notochord itself ends.

I look upon this peculiar modification of the basi-cranial axis as due to a specialisation taking place for the purpose of finishing an actual or practical end to the skull, the organic end having been bent under the head; its position would be directly below the fore-brain, after the cranial flexure had taken place.

Nevertheless, I do not doubt the homology of these paired tracts and their lateral alæ (trabeculæ and orbito-sphenoids) with the paired tracts and their alæ that grow on each side of the notochord (post-sphenoidal and occipital regions).

This outgrowing front region of the skull is a correlate of the outgrowing and

¹ See Eschricht, On *Balæna japonica*. Copenhagen, 1869 (pl. ii. figs. 1-3, k).