

chondrocranium, from having a flat-bottomed Batrachian form, grows up into a high wall between the eyes, as well as developing a partition in the nasal region.

Other Batrachian characters show themselves in later stages in the Turtle's skull, but this is the stage at which it approximates nearest to that of the Tadpole; this is especially seen in the flat, out-turned ends (cornua) of the paired trabeculæ (figs. 5-7).

This stage is especially valuable as helping, in comparison with what is to be seen in Tadpoles and larval Urodeles, to a clear conception of the true nature of the prochordal part of the trabeculæ.

I apply the term *basineural* to the paired elements of the skull-base and skull-walls, and their homology with the series of paired cartillages of the spine (neural arches) is clearly to be seen in the stage before us.

The axial part, the notochord, with its thin mesoblastic sheath, stops behind the oral involution; but the three mesoblastic tracts are carried on to the frontal wall of the embryo, the trabeculæ continuously, and the intertrabecula, with only a short tract suppressed. This, however, becomes all filled up afterwards, or long before the time of hatching.

Now, however, and during the next stage, until the middle of the incubating period, the prochordal part of the trabeculæ is segmented off from the parachordal part.¹

The tissue is continuous, but the cartilage divides and forms a temporary joint, inherited, I have no doubt, from some old type to whom such a joint was useful.

The prochordal tracts (seen from above in Pl. II. figs. 5 and 7; from below, in fig. 6; and in section in figs. 9 and 10, *tr.,i.tr.*) occupy half the lower region of the skull, which, however, is shorter by two-fifths than it would have been if the mid-brain had stretched out in a straight line instead of folding itself into a sudden loop.

But the chondrocranium only shows a tendency, in the curved form of the notochord, to loop itself; it really begins again at a new point, and the prochordal part of the trabeculæ is set on at the base of the ascending part.

In the next stage we shall see a more perfect looping, even of the basal part of the skull; now, we see the floor merely breaking out again under the fore-brain. The prenasal end of the intertrabecula bends, already, somewhat downwards in the front of the head; behind, it runs under the fore half of the pituitary space; at that part the three rods are all rounded (fig. 10, *tr.,i.tr.*).

Further forwards, between the eyes (fig. 9), the intertrabecula is on a still lower plane than in the pituitary space; this is an important fact to be noticed, as the carination of the orbital septum in this type is due to this low position of the middle bar. There also the three bars are only separated by less solid tissue; further forwards (Pl. IV. fig. 1, *tr.,i.tr.*) they are more distinct again, and there the trabeculæ give out

¹ For some years I supposed this distinction of parts to be primary; I am now satisfied that it is secondary (see Proc. Roy. Soc., Feb. 13, 1879, p. 339).