

Another section (fig. 3) is through the oral involution, and shows a slice through the lower part of the most solid lobe of the pituitary body (*py.*), the trabeculæ (*tr.*) are cut through on each side; the curious foldings of the lips of the involution are seen here as in fig. 4.

A section on a still lower plane (fig. 5) shows well the junction of the parts that form the pituitary floor, or *sella turcica*; the trabeculæ, intertrabecula, and fore part of the investing mass (*tr., i.tr., iv.*). Here the lower part of two of the pituitary lobes are cut through, and the sixth nerve (6) is seen passing outwards, having been severed from the floor of the hind-brain, towards the *external rectus* muscle; outside this is seen a fragment of the trigeminal nerve (5<sup>2,3</sup>). The internal carotids (*i.c.*) appear further forwards.

These embryos of so large a reptile, although only a third the size of the Tadpole of a Common Frog, show many most important things. Among these are the various visceral folds and clefts; the large size and great length of the intertrabecular bar, the size and height of the post-pituitary wall, with the end of the notochord; also the commencement of the pituitary body, of the infundibulum, and of the olfactory tract, whilst the optic nerve is still hollow.

The olfactory nerves are still quite solid and independent of the hollow olfactory tracts; beneath them, and beneath the eyeballs also, a curious gap or cleft is seen on each side, which at once suggests the idea of a series of clefts, as there are also a series of folds truly homologous with the clefts and folds behind the mouth; and, indeed, the mouth itself, with its opercular fold, the hind part of the upper lip, may be considered to belong to the same category.

Much earlier embryos would have been required to show the origin of the third pair of cranial nerves from the dorsum of the middle cerebral vesicle. I am satisfied that the sixth pair (abducentes) grow from the inferior surface of the hind-brain.

As the embryonic cartilage has become almost hyaline, in most tracts where that tissue has to be developed, a very short time suffices to bring this stage on to the next, in which almost all the endo-skeletal structures will be well marked out and laid down in that solid tissue.

*Fifth Stage. Embryos one inch and a third in length, measured along the curve.—*

(a.) *Lateral view of embryo.*—In actual size these embryos equal a honey-bee, yet their development is very perfect; and as the chondro-skeleton is now complete they are at a stage which represents the permanent skeleton of cartilaginous fishes (Marsipobranchii and Elasmobranchii), and the temporary skeleton of amphibian larvæ.

Small as these embryos are, they have assumed already much of the form which is permanent in this gigantic species. The chick of the Common Fowl arrives at this stage by the end of the first week of incubation, but is hatched in a much more im-