

large wings—the orbito-sphenoids (*o.s.*). Now, as in the Tadpole, these “wings” arise from the very floor of the skull; this will be greatly changed afterwards.

A careful comparison of the sections and dissections figured from the embryos of this stage will make plain the development of the pituitary body (*py.*).

The views from below (Pl. II. figs. 2, 3), and in the vertical section (fig. 4), show but little of the complexity of this structure; this, however, is illustrated by other preparations. In a horizontal section of the fore part of the basis cranii (Pl. II. figs. 6, 7, lower and upper views) the formation of this quasi-glandular structure is seen to be by the oral lining passing inwards, upwards, and backwards. The actual opening is now heart-shaped (fig. 6), and the fold has its walls composed of rather larger subglobular cells.

This pituitary pouch is obliquely placed; its upper part going backward. Seen from the roof (figs. 7 and 8) the sides appear thicker than the top; the end is almost separated from the rest, and its walls are very thick.

But the upper part, which alone becomes the pituitary body, is not so simple as these aspects seem to show; it becomes racemose, and the temporary, open, lower portion becomes also curiously folded.

We get additional light upon the structure of this unexplained “body” by sections which, in the fore part of the head, are vertically transverse, but owing to the cephalic fold become almost parallel with the floor of the skull behind (Pl. IV. figs. 1–5).

The first of these sections has already been referred to as showing the low position of the trabecular (orbito-sphenoidal) alæ (*o.s.*) on each side of the carinate “inter-trabecula.” The second section (fig. 2) goes obliquely through the mass of the high “post-pituitary wall” (*p.cl.*), exposing the huge Gasserian ganglia (5), the upper part of the auditory capsules (*au.*), and the notochord (*nc.*), both in its ascending and in its horizontal part. The membranous space in which it lies is the “posterior basi-cranial fontanelle,” the trabeculæ and parachordals proper, pass into each other on each side of this space in front.

That this section is above the pituitary body is seen by the fact that it shows the budding *infundibulum* (*inf.*), but none of the lobes that are to be grafted upon it. Another section (fig. 4), made at a somewhat different angle shows this budding lobe of the fore-brain (C 1, *inf.*) in front of the lobed and winged rudiment of the pituitary body (*py.*).

Part both of the trabeculæ and cranial walls, the alisphenoids behind, and orbito-sphenoids in front, are seen, and the internal carotids (*i.c.*) are coming up to form the “circle of Willis.”

The ophthalmic branch of the fifth (5<sup>1</sup>) is seen passing forwards on the inner side of the eye (*e.*), and the third nerves (3), each with its distal ganglion are shown; this second enlargement of the “motor oculi” lies directly above the origin of the diverging orbital muscles.