

front parts of the brain, namely, the *hemispheres* and *olfactory tracts*; these, assuredly, are serially homologous with the developments of the brain further back.

The hinder parts of the cranial walls are suppressed for a considerable space by the intrusion of the large egg-shaped periotic sacs (*au.*); these are distinct cartilaginous balls, and take up much room in the walls of the skull; moreover, they push certain cranial nerves away from each other very much by their intrusion. These are the seventh and the ninth; the eighth is part of the seventh, which gives up its dorsal branch for this (auditory) specialisation.

The closing in of the occipital arch, behind, compresses the space between the post-auditory nerves; and now, also, the hypoglossal (12) becomes enclosed in the occipital cartilage.

The notochord and its sheath (figs. 4, 4*a*, 5, *nc.*) is now only half as high as the post-clinoid wall; its end is bulbous, and somewhat curved forwards: this is seen still more in the thin sections of other individuals.

The pituitary body (*py.*) is seen in these views (figs. 4, 4*a*, 5) as a small vesicle overlying a larger sac, obliquely, and both are quite distinct from the closed papilliform rudiment of the infundibulum (*inf.*); in reality, however, the pituitary body is more complex at this stage than this view would indicate, and this will be seen in the figures of the thin sections.

(*e.*) *Upper view of chondrocranium.*—This dissection (Pl. IV. fig. 6) shows how well the cavity of the cranium is floored with cartilages, but it gives an imperfect idea of the size of the transverse wall (*p.cl.*) that rises within the cavity of the mid-brain. The growth of the cartilage is seen to be continuous from end to end.

At the fore end the olfactory nerves (1) notch the orbito-sphenoids (*o.s.*); and behind, these large wings are again notched by the optic nerves (2).

In the middle of the space behind the optic foramina the three main lobes of the growing pituitary body (*py.*) are seen, with the post-clinoid wall behind them.

This, the highest part of the basi-cranial axis, runs into the alisphenoids (*al.s.*), laterally; behind them, at the bottom of the deep recess, the basal plate has a round notch on each side in which lies the Gasserian ganglion (5); between the ganglia the notochord (*nc.*) turns upwards suddenly.

Behind these notches the plates have again a concave margin, for here the auditory sacs (*au.*) fit in; into them the eighth nerve (8) is seen entering; behind them the glossopharyngeal and vagus (9, 10) are seen emerging.

In this preparation the roof was cut away; the foramen magnum (*f.m.*) is seen to be large and reniform.

(*f.*) *Lower view of chondrocranium.*—This dissection (Pl. IV. fig. 7) displays some important parts, not the least remarkable of which is a small round recess at the angle in front of the palate, close behind the prenasal rostrum (*p.n.*), which is turned back-