

(fig. 9, *e*, fig. 9a, *e*). Subsequently, this opening lessens considerably, but is never closed, not even in the adult. At this period, the position of the brain in relation to the spinal cord is remarkable: the whole of this organ, with the exception of a small portion, the cerebellum, (Pl. 12, fig. 8, *e*<sup>3</sup>, 9, *e*<sup>3</sup>, 9a, *e*<sup>3</sup>), next to the open region, trends in a direction which is perpendicular to the spinal marrow (fig. 9, 9a, *e*). At no other time is the brain so strongly bent upon itself. Thus far there is but one fold, that at the cerebellum; the latter forming the angle of junction between the brain and the medullary tube, and all that is to be hereafter—severally, the olfactory lobes, the hemispheres, the optic lobes, and the corpora quadrigemina—is now comprised in a simple, large chamber, which stands in the most deflected position conceivable, at right angles to the longitudinal axis of the body.

Subsequently, the brain suddenly narrows behind, (Pl. 12, fig. 10, *e*<sup>3</sup>) and folds downward and forward along the median line, so as to give its posterior edge a heart-shaped figure; and thus the posterior boundaries of the corpora quadrigemina are formed. We have given a perfect profile view of an embryo a little older, in order to show the transverse position of the brain as regards the spinal axis (Pl. 12, fig. 6; Pl. 18a, fig. 13). Soon after this, the superior or dorsal side of the brain becomes indented by two transverse, shallow folds, so as to have an undulated profile (Pl. 18a, fig. 14). This produces a slightly three-lobed aspect; one lobe being anterior to the folds, one between them, and one behind the same; the last lobe, the corpora quadrigemina, (fig. 14, *e*<sup>3</sup>) is clearly separated from the open region (fig. 14, *e*<sup>1</sup>) behind by a folding, which we have described in the last phase. These folds increase in depth, and plunge far into the head; the posterior one (Pl. 24, fig. 7, *e*<sup>5</sup>) reaching much deeper than the anterior one, which is just in front of the eyes (fig. 7, *k*). The breadth of the brain, at this stage, has decreased considerably, (Pl. 24, fig. 7a, *e*<sup>2</sup> to *e*<sup>3</sup>) and is slightly undulating at the sides, so as to appear four lobed when seen in front: the anterior lobe, formed by the hemispheres, (fig. 7a, *e*<sup>3</sup>) being the same as the one seen before the eyes in the profile view (fig. 7); the second, the optic lobe, is that which lies just in front of the deepest fold (fig. 7, *e*<sup>5</sup>); the third lobe, formed by the corpora quadrigemina, is that which lies close behind the deepest fold; and the fourth and last lobe (fig. 7, *e*<sup>2</sup>) is the cerebellum. The lateral constriction, between the optic lobes and the corpora quadrigemina, soon becomes very deep, (Pl. 24, fig. 9a, *e*<sup>4</sup>) and the latter body is gradually elevated, (Pl. 14, fig. 4; Pl. 16, fig. 6 and 6a,) so as to give the head a crested appearance. This crest rises at one time very high (Pl. 14, fig. 2a; Pl. 18a, fig. 9). However, the prominence of the corpora quadrigemina does not indicate an absolute preponderance in size or capacity, when compared with the other lobes, since we find, upon