

the form of a longitudinal fold, and both folds then grow together over the furrow in the central line, and thus form a cylindrical tube. This tube is called the marrow-tube, or medullary canal, because it is the foundation of the central nervous system, the *spinal marrow* (medulla spinalis). At first it is pointed both in front and behind, and it remains so for life in the lowest vertebrate animal, the brainless, skull-less Lancelet (*Amphioxus*). But in all other vertebrate animals, which we distinguish from the latter as skulled animals, or Craniota, a difference between the fore and hinder end of the marrow-tube soon becomes visible, the fore end becoming dilated, and changing into a roundish bladder, the foundation of the *brain*.

In all Craniota, that is, in all vertebrate animals possessing skull and brain, the brain, which is at first only the bladder-shaped dilatation of the anterior end of the spinal marrow, divides into five bladders lying one behind the other, four superficial, transverse in-nippings being formed. These *five brain-bladders*, out of which afterwards arise all the different parts of the intricately constructed brain, can be seen in their original condition in the embryo represented in Fig. 7. It is just the same whether we examine the embryo of a dog, a fowl, a lizard, or any other higher vertebrate animal. For the embryos of the different skulled animals (at least the three higher classes of them, the reptiles, birds, and mammals) cannot be in any way distinguished at the stage represented in Fig. 7. The whole form of the body is as yet exceedingly simple, being merely a thin, leaf-like disc. Face, legs, intestines, etc., are as yet completely wanting. But the five bladders are already quite distinct from one another.