been such a simple mulberry-shaped ball, composed only of small cells.

The further development of the globular lump of cells, which now represents the young body of the mammal, consists first in its changing into a globular bladder, as fluid accumulates within it. This bladder is called the germbladder (Blastula or Vesicula blastodermica). Its wall is at first composed merely of homogeneous cells. But soon, at one point on the wall, arises a disc-shaped thickening, as the cells here increase rapidly, and this thickening is now the foundation of the actual body of the germ or embyro, while the other parts of the germ-bladder serve only for its nutrition. The thickened disc, or foundation of the embryo, soon assumes an oblong, and then a fiddleshaped form, in consequence of its right and left walls becoming convex (Fig. 7, p. 349). At this stage of development, in the first form of their germ or embryo, not only all mammals, including man, but even all vertebrate animals in general-birds, reptiles, amphibious animals, and fishes -can either not be distinguished from one another at all, or only by very unessential differences, such as size and the arrangement of the egg-coverings. In every one the entire body consists of nothing but two thin layers of simple cells; these lie one on the top of the other, and are therefore called the primary germ-layers. The outer or upper germlayer is the skin-membrane (exoderm), the inner or lower the intestinal membrane (entoderm).

The germinal form of the animal body, which thus consists merely of the two primary germ-layers, is the same in all of the many-celled animals (Metazoa), and hence is of the utmost importance. I was the first to maintain the general

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