

This cellular selection appears by the side of personal selection as an extremely important process of transformation, and the same will be found to be the case also with the theory of divergence; for *personal divergence* finds its elementary foundation in the differentiation of the cells, which constitute the individual person, that is, in *cellular divergence*.

The theory of the tissues of animals and plants (that is, histology) has long since recognized, from the theory of cells, that one of the most important phenomena in the development of the histons, or many-celled organisms, is the so-called differentiation or separation of the tissues. By this we understand, generally speaking, the fact which strikes us at once in the development of every many-celled individual, that homogeneous cells produce heterogeneous tissues. From the homogeneous cells of the germ-layers (for instance, in all metazoa or many-celled animals) there develop cells of entirely different kinds, which form the skin, the glands, the connecting tissues, the muscles, the nerves, etc. Thus we can convince ourselves, at the same time, that the original form of tissue in the animal body is a simple layer of cells, or an *epithelium*; even the first development of germ-skin (blastoderm) is an epithelium of this kind (see Plate V., Fig. 5, 6). And the falling in of the blastula (Fig. 7) gives rise to the gastrula (Fig. 8), and the simple germ-skin separates into the two so-called "primary germ-layers," the exoderm (*e*) and the entoderm (*i*). From the latter, by further separation, are produced the four secondary germ-layers (likewise simple epithelium, Fig. 9), and from these again all the various kinds of tissue. These latter, therefore, must all be termed "secondary