

parent. While the growth which starts the propagation, in the case of self-division, is a total one affecting the whole body, it is in the formation of buds only partial, affecting merely a portion of the parental organism. But here, also, the bud—the newly produced individual which remains so long most directly connected with the parental organism, and which proceeds from it—retains the essential qualities and the original tendency of development of its parent.

A third mode of non-sexual propagation, that of the *formation of germ-buds* (Polysporogonia), is intimately connected with the formation of buds. In the case of the lower, imperfect organisms, among animals, especially in the case of the Plant-like animals and Worms, we very frequently find that in the interior of an individual composed of many cells, a small group of cells separates itself from those surrounding it, and that this small isolated group gradually develops itself into an individual, which becomes like the parent, and sooner or later comes out of it. Thus, for example, in the body of the Fluke-worms (Trematodes) there often arise numerous little bodies consisting of many cells, that is *germ-buds*, or *polyspores*, which at an early stage separate themselves completely from the parent body, and leave it when they have attained a certain stage of development.

The formation of germ-buds is evidently but little different from real budding. But, on the other hand, it is connected with a fourth kind of non-sexual propagation, which almost forms a transition to sexual reproduction, namely, the *formation of germ-cells* (Monosporogonia), which is often briefly called formation of spores (sporogonia). In this case it is no longer a group of cells, but a single cell, which