trates all parts of the body, and forms one of its principal constituents.

36. All living bodies, without exception, are made up of *tissues* so constructed as to be permeable to liquids. There is no part of the body, no organ, however hard and compact it may appear, which has not this peculiar structure. It exists in the bones of animals, as well as in their flesh and fat; in the wood, however solid, as well as in the bark and flowers of plants. It is to this general structure that the term *organism* is now applied. Hence the collective name of *organized beings*,* which includes both the animal and the vegetable kingdoms.

37. The vegetable tissues and most of the organic structures, when examined by the microscope in their early states of growth, are found to be composed of hollow vesicles or *cells*. The natural form of the cells is that of a sphere or of an ellipsoid, as may be easily seen in many plants; for example, in the tissue of the house-leek, (Fig. 1.) The intervals which sometimes separate them from each other are called *intercellular passages* or *spaces* (*m.*) When the cellules are very numerous, and crowd each other, their outlines become angular, and the intercellular spaces disappear, as seen in figure 2, which represents

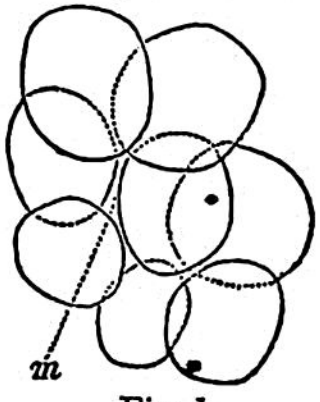

Fig. 1.

* Formerly, animals and plants were said to be *organized*, because they are furnished with definite parts, called *organs*, which execute particular functions. Thus, animals have a stomach, a heart, lungs, &c; plants have leaves, petals, stamens, pistils, roots, &c., which are indispensable to the maintenance of life and the perpetuation of the species. Since the discovery of the fundamental identity of structure of animal and vegetable tissues, a common denomination for this uniformity of texture has been justly preferred; and the existence of tissues is now regarded as the basis of organization.