

organized. One of these, *Actinophrys* (Fig. 9), has the body globular and unchanging in form, the outer wall of greater thickness; the pulsating vesicle like a blister on the surface, and the pseudopods long and thread-like. Its habits are similar to those of the *Amœba*, and I introduce it to show the variations of form and structure possible even among these simple creatures.

The *Amœba* and *Actinophrys* are fresh-water animals, and are destitute of any shell or covering. But in the sea there exist swarms of similar creatures, equally simple in organization, but gifted with the power of secreting around their soft bodies beautiful little shells or crusts of carbonate of lime, having one orifice, and often in addition multitudes of microscopic pores through which the soft gelatinous matter can ooze, and form outside finger-like or thread-like extensions for collecting food. In some cases the shell consists of a single cavity only, but in most, after one cell is completed, others are added, forming a series of cells or chambers communicating with each other, and often arranged spirally or otherwise in most beautiful and symmetrical forms. Some of these creatures, usually named *Foraminifera*, are locomotive, others sessile and attached. Most of them are microscopic, but some grow by multiplication of chambers till they are a quarter of an inch or more in breadth.

The original skeleton or primary cell wall of most of these creatures is seen under the microscope to be perforated with innumerable pores, and is extremely thin. When, however, owing to the increased size of the shell, or other wants of the creature, it is necessary to give strength, this is done by adding new portions of carbonate of lime to the outside, and to these Dr. Carpenter has given the appropriate name of "supplemental skeleton"; and this, when covered by new growths, becomes what he has termed an "intermediate skeleton." The supplemental skeleton is also traversed by tubes, but these are