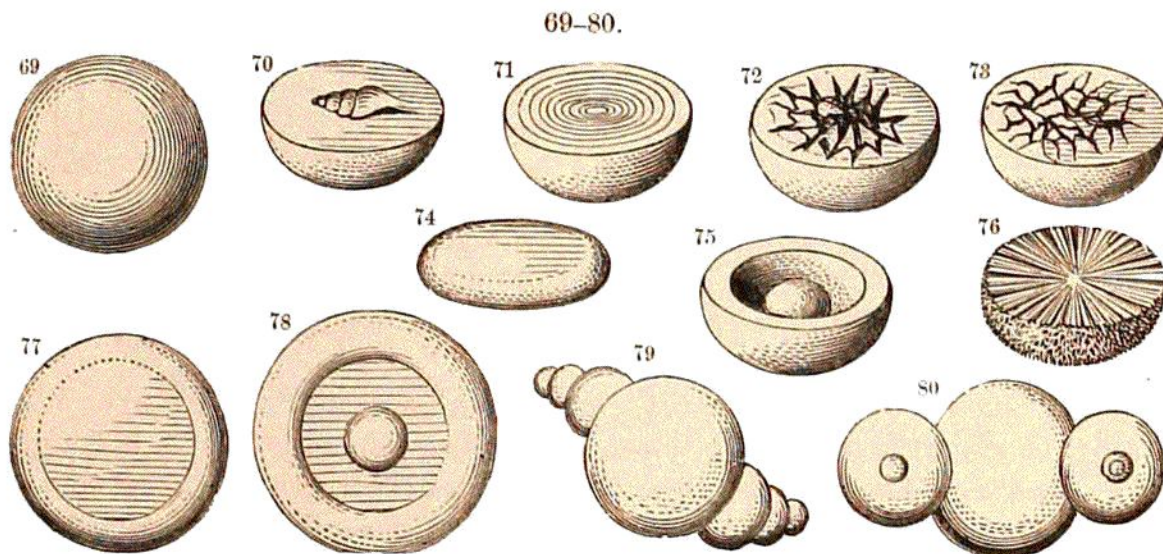


(18) *Scratches* (*striæ*) or *furrows* or *polished surfaces* sometimes cover rocks, which have been produced by abrasion attending movements. They often cover the walls of fissures, and sometimes the surfaces of beds of rock; and in such cases they are called by the miners' term, *slickensides*. They occur also over the rocky surface of a country as a result of past or recent glacier flows; and such are called simply glacier scratches or *striæ*. This subject is further explained under Dynamical Geology.

(19) *Concentric structure*.—In concentric structure there is an aggregation of matter around a center, making, usually, spheres or flattened spheroids, as in Figs. 69–83. The form is usually dependent on growth by deposition from a solution around a center, so that the growth is outward, or *centrifugal*. In ordinary *concretions* it is growth by accretion, and it sometimes produces a series of distinct concentric layers. The forms are



spherical (Fig. 69); more frequently flattened spheroids (Figs. 74, 83); and very frequently aggregations of concretions that are symmetrical in arrangement (Figs. 79, 80). Concentric layers are shown in Figs. 71 and 81. At the center there may be, as a nucleus, a shell (Fig. 70), or a spider, or insect, or leaf, or merely a grain of sand undistinguishable by the unaided eye. They often form as the first step in the process of consolidation, and make a rock consisting of concretions which may disappear when the consolidation is complete. Some layers may have spherical concretions, and another above and below flattened (Fig. 82), those beds in which filtrating waters spread with equal facility in all directions having spherical, and those of a laminated structure, in which the waters spread laterally most easily, having spheroidal or flattened kinds. They are sometimes hollow rings, or contain a ball within (Figs. 77, 78).

The kind represented in Fig. 81, in which the concretions are about as large as peas, is called *pisolite*, from the Latin for *pea*. A similar kind, having the spheres about as large as the roe of fish, but not often with concentric layers, is the rock *oölyte*. *Oölyte* is now forming on the Florida