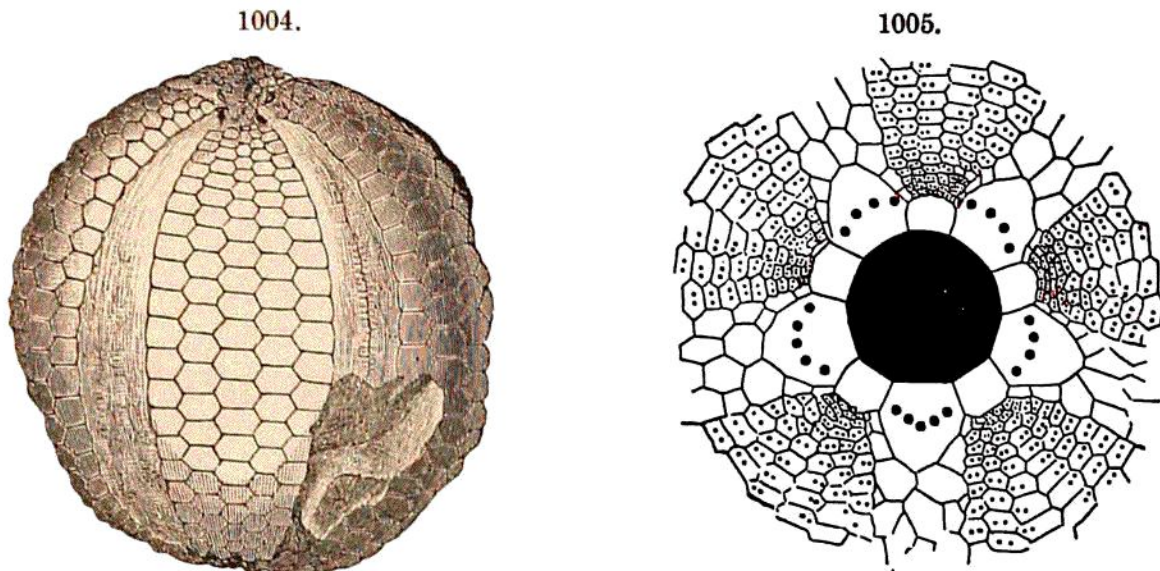


a foot. Figs. 993, 994, 996, 997 are the bodies of different species of Crinoids without the radiating arms. The Crinoids often have a long or short proboscis-like projection, at the center above, which is made of stout calcareous pieces like the body, but is tubular; it is seen broken off in Figs. 993 and 996; and Fig. 998 represents one separate from the body of a *Batocrinus* (near that of Fig. 996), showing the calcareous pieces constituting it. Fine figures of the Subcarboniferous Crinoids, illustrating the wonderful diversity of forms among them, are contained in the Illinois, Iowa, and Ohio geological reports. In some species the length and form of the proboscis (which contains the anal or excretory tube, not that to the mouth) are very remarkable.

Two species of *Pentremites*, armless bud-shaped, five-sided species, of the tribe of *Blastoids*, eminently characteristic of the Subcarboniferous, are represented in Figs. 999, 1000.



ECHINOIDS. — Fig. 1004, *Oligoporus nobilis* ($\times \frac{1}{2}$); 1005, *Melonites multiporus*, view of top ($\times 2$). Meek and Worthen.

Echinoids were of large size, and were unlike modern species in the excessive number of vertical series of plates between the ambulacral areas. One species (Fig. 1004) has 5 series of these plates, instead of the normal or modern number, two. In *Archæocidaris* (a portion of a shell of one species of which is shown in Fig. 1001), the spines with which the shell was bristled were (as in modern species of *Cidaris*) of large size and few (like Fig. 1002 in form), as the large prominences over the shell (Fig. 1002 *a*) indicate; but in Fig. 1004 they were very small. Fig. 1005 is a top view, enlarged, of *Melonites multiporus*. One very large slab in the Yale Museum, from St. Louis, Mo., contains 11 *Melonites* to a square foot. The generic name alludes to the resemblance in form to a melon.

3. **Molluscoids.** — Of *Molluscoids*, the screw-shaped Bryozoans, species of *Archimedes*, Fig. 1006, are characteristic. The screw has lost the larger