

422-430.

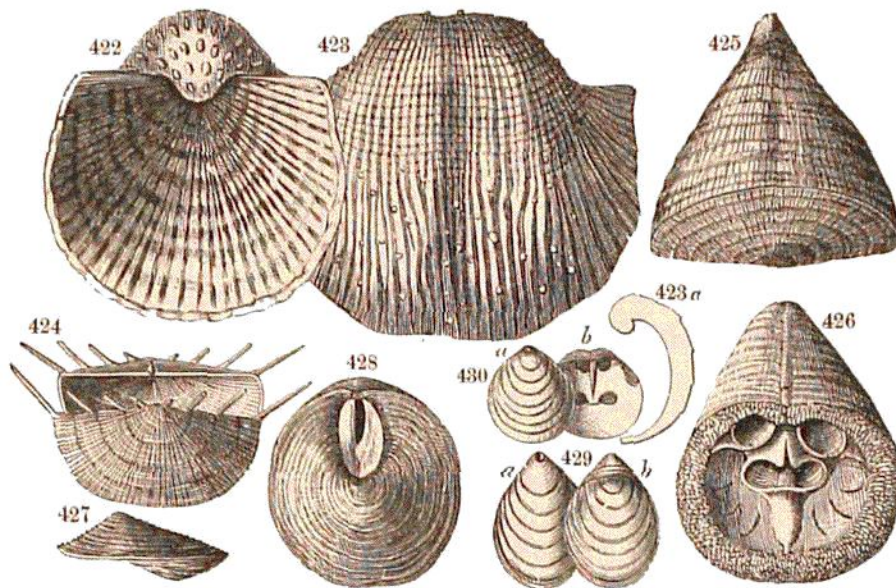


Fig. 422, *Productus aculeatus*, dorsal view; 423, *Productus semireticulatus*, ventral view; 423 *a*, section of *Productus*, showing the curvature of the valves; 424, *Chonetes latus*, opposite views; 425, *Calceola sandalina* (a Coral with lid, resembling a bivalved Brachiopod); 426, *Crania antiqua*; 427, *Discina* (*Discinisca*) *lamellosa*, side view; 428, id. showing foramen; 429 *a*, *b*, *Siphonotreta unguiculata*, opposite views; 430 *a*, *b*, *Obolus Appollinis*.

Brachiopods are among the oldest of fossils. The animals have been shown by Morse to have close relations to the Annelids, though not multiply like them, but when adult without distinct segments.

2. **Bryozoans** (*Polyzoans*).—Bryozoans, or *Moss-animals* (so named with reference to the moss-like corals they often form), look like Polyps, owing to the series of slender ciliated organs surrounding the mouth, as represented in Figs. 395, 395 *a*; 395 is magnified about 8 times; and 395 *a* represents the animal showing its stomach at *s*, and the flexure in the alimentary canal, with its termination alongside of the mouth. The coral consists of minute cells either in branched, reticulated, or incrusting forms. They are often calcareous; and such were common in the Silurian, and still occur. *Eschara*, *Flustra*, *Retepora*, are names of some of the genera. The Oysters in the market often have their shells encrusted with large groups of the minute cells of Bryozoans.

Fig. 431 represents a membranous species (called *Gemellaria loricata*); *b* is the moss-like coral, natural size; and *a* a portion of a branch, enlarged, showing the cells.



BRYOZOAN, *Gemellaria loricata*.

## 5. Echinoderms.

Echinoderms, while eminently radiate in the adult stage, in the young have bilateral symmetry; and a few species never get beyond the form of the young. The exterior is more or less calcareous, often furnished with spines. They have distinct nervous and respiratory systems and also a complete digestive system. The name alludes to the spines over the surface in a prominent part of the species, and is from *echinus*, a hedgehog.

The following are the subdivisions:—

1. **Holothurioids** (*Sea-slugs*, *Sea-cucumbers*).—Having the exterior soft, and throughout extensile or contractile, and the body elongated; mouth at one end surrounded by a wreath of branched tentacles.