at Cincinnati, holding *Cœnograptus gracilis* and three other species of Normanskill Graptolites, also contain *Triarthrus Beckii* and other characteristic Utica species (Ulrich, *Am. Geol.*, i.).

4. **Echinoderms.** — Among Crinoids, Fig. 708, *Glyptocrinus decadactylus* H., not uncommon in New York, Ohio, Kentucky, and other states; also *Dendrocrinus Cincinnatiensis* Meek, and species of the genera *Heterocrinus*, *Porocrinus*, *Carabocrinus*, *Reteocrinus*, *Canistrocrinus*, *Stenocrinus*, *Ohiocrinus*, *Iocrinus*, *Anomalocrinus*, *Merocrinus*. Fig. 703 represents a large Star-fish from the blue limestone of Cincinnati, as figured by J. G. Anthony, the original of which was 4 inches across.

There are also Cystoids of the genera *Agelacrinites*, *Lichenocrinus*, *Hemicystites*, all *sessile* species, and in this respect Actinia-like; also Star-fishes of the genus *Palæaster*, etc.

5. **Brachiopods.** — The figures of Brachiopods on page 507 are from specimens obtained in the Cincinnati beds. Other characteristic species are *Lingula quadrata*, *Crania scabiosa*, *Zygospira modesta*.

6. **Mollusks.** — (*a*) *Lamellibranchs.* — *Cypricardites Sterlingensis* M. & W.

(*b*) *Gastropods.* — *Murchisonia Milleri* H.; *Cyrtolites ornatus* Con., near Fig. 679; *C. imbricatus* M. & W., Illinois; *C. carinatus* Miller and others; *Cyclonema bilix* Con.; *C. Cincinnatiense* Ulr., etc.; *Pleurotomaria Ohioensis* H., etc.; *Cyclora parvula* H.; also species of the genera *Trochonema*, *Helicotoma*, *Metoptoma*, etc.

(*c*) *Pteropods.* — Species of *Tentaculites*, *T. tenuistriatus* M. & W., and *T. Oswegoensis* M. & W., from Illinois, in the Cincinnati group; *Theca parviuscula*, H.; *Conularia formosa* M. & D.; *C. Trentonensis* H.

(*d*) *Cephalopods.* — Some of the species, besides those figured, are *Orthoceras amplicameratum* H.; *O. coralliferum* (4 inches broad); *O. transversum* Miller; *Gomphoceras eos* H. & Whitf., from Cincinnati; *Actinoceras* (*Ormoceras*) *crebriseptum* Hall; *Endoceras proteiforme* H.; *Trocholites Ammonius*.

7. **Crustaceans.** — *Asaphus platycephalus; A. Canadensis* Chapm.

Ostracoids occur of the genera *Leperditia*, *Cytheropsis*, *Beyrichia*, *Primitia*.

Some of the genera and species from the Cincinnati beds are the following: *Cœnograptus gracilis* H., Fig. 699; *Dendrograptus gracillimus* Lesq.; *D. tenuiramosus* Walc.; *Dicranograptus ramosus* H., Fig. 702; *Diplograptus Whitfieldi* H.; *D. spinulosus* H.; *Climacograptus typicalis* H.; species of *Zaphrentis; Inocaulis arbuscula* Ulv.; the Trenton species, *Glyptocrinus decadactylus; Heterocrinus Canadensis; H. geniculatus;* species of *Palæaster*, *Protaster*, *Codaster;* of *Lingula*, *Strophomena*, *Orthis*, *Rhynchonella*, *Crania; Tellinomya alta;* Fig 709, *Avicula demissa; Ambonychia radiata;* species of *Lyrodesma*, *Modiolopsis*, *Orthodesma; Conularia Trentonensis*, *C. formosa* M. & D., *Fusispira terebriformis*, *Endoceras proteiforme*, *Cyrtoceras ornatum; Trinucleus concentricus*, *Calymene Christyi* H., *Dalmanites breviceps* H., *Proetus parviusculus* H.; species of *Primitia*, *Beyrichia*, *Leperditia*, *Cytheropsis*.

In the Eureka district, Nevada, according to Walcott, the Pogonip limestone, which rests on the Cambrian and is 2700′ thick, contains in the lower part a mixture of Potsdam and Silurian species; the genera *Dicellocephalus*, *Agnostus*, *Ptychoparia* being largely developed, and some species identical with Wisconsin Potsdam species; and with these are *Acrotreta gemma* and some other Calciferous species; but above the middle of the Pogonip beds the characteristic Cambrian features are absent, and there occur the genera *Receptaculites*, *Monticulipora*, *Pleurotomaria*, *Maclurea*, *Cyphaspis*, *Bathyurus* and *Asaphus;* and still higher the genera *Orthis*, *Strophomena*, *Cyrtolites*, *Orthoceras*, *Endoceras*, *Tellinomya*, *Amphion*, *Ceraurus*, *Asaphus*, *Leperditia*, *Beyrichia*, which appear to indicate the horizon of the Lower Trenton, or the Chazy. Between the Pogonip limestone and the Devonian there are 500′ of Eureka quartzyte and 1800′ of Lone Mountain limestone, and only *Halysites catenulatus* has been found here. See Walcott, *U. S. G. S. Rep.*, 4to, 1884.