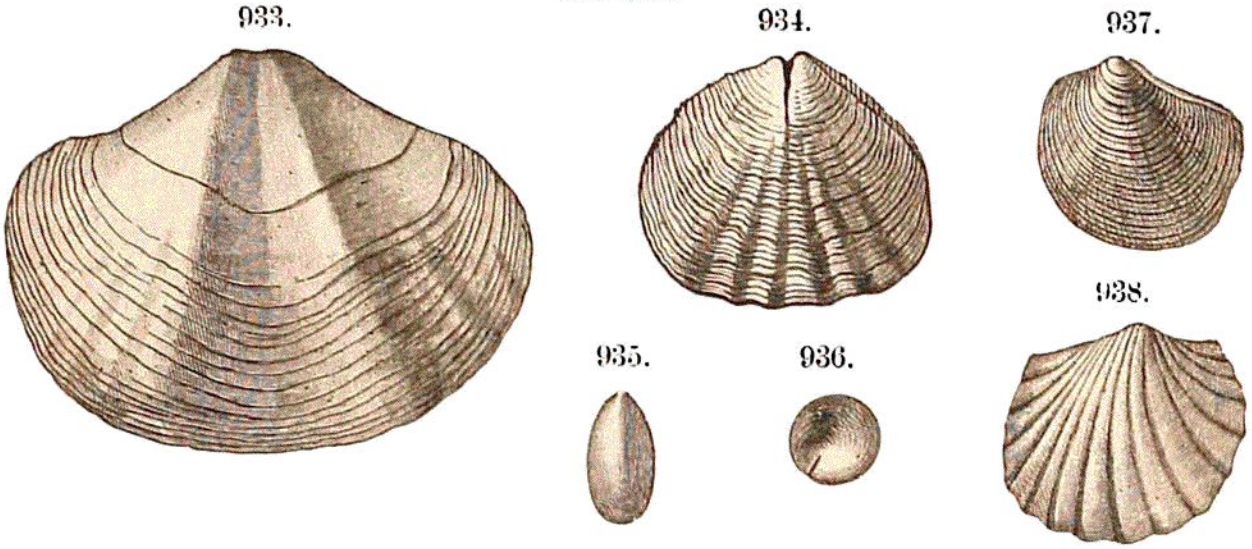
Brachiopods were far more numerous in the Chemung beds than in the Portage. The figures 939 to 942 represent common species; 941, an *Atrypa* of ornate type, like the young of *A. reticularis;* 940, a species of *Productella.*

933–938.



Brachiopods. — Fig. 933, Spirifer lævis (P.); 934, Leiorhynchus quadricostatum (G.); 935, Lingula spatulata, (× 3) (G.); 936, Orbiculoidea Lodensis, (× 2)(G.). **Lamellibranchs.** — Fig. 937, Lunulicardium fragile (G. and P.); 938, Glyptocardia speciosa (G. and P.). Hall, except Fig. 934, King.

4. **Mollusks.** — *Lamellibranchs* were few in the Portage, but very numerous in the New York and Pennsylvania Chemung beds, outnumbering all other Mollusks. Hall describes 252 Chemung species, and only 11 from the Portage and Genesee beds, with 174 from the Hamilton. Figs. 939, 940, 943, 944, 945, represent some common forms. A compressed specimen of a New York Catskill species is represented in Fig. 948. It has the form of a freshwater Unio, and the name *Amnigenia*, of Hall, alludes to its suspected freshwater habitat. It is from the "Oneonta sandstone" of Chenango and Otsego counties, N.Y., and has been found also in the Catskill beds of Bedford County, Pa.

The "Black shale" of Ohio and the states west and south, which represents the Genesee with more or less of the Portage and Chemung beds, is remarkable for the great rarity of fossils. In Ohio the lower beds have afforded the Portage species: *Chonetes scitulus, Goniatites complanatus, Coleolus acicula, Styliolina fissurella;* and the upper and middle portion, the Chemung species: *Leiorhynchus mesacostale, Spirifer disjunctus, S. altus;* also species of *Lingula* and *Orbiculoidea.* Southern Indiana has afforded *Lingula spatulata, Discina* (*Schizobolus*) *truncata, Chonetes lepidus, Leiorhynchus quadricostatum* (Genesee species), *L. limitare* (a Marcellus sp.), *Styliolina fissurella.* Fossil plants also are rare; but wood of Gymnosperms, referred to *Dadoxylon* and *Cordaites,* is found in it. In most parts of the shale, Sporangites are in great abundance, *S. Huronensis* of Dawson, $\frac{1}{400}$ to $\frac{1}{100}$ inch in diameter.

Gastropods are few in both the Portage and Chemung beds. The prolific genera of the earlier Devonian, *Platyceras* and *Platystoma,* have a number