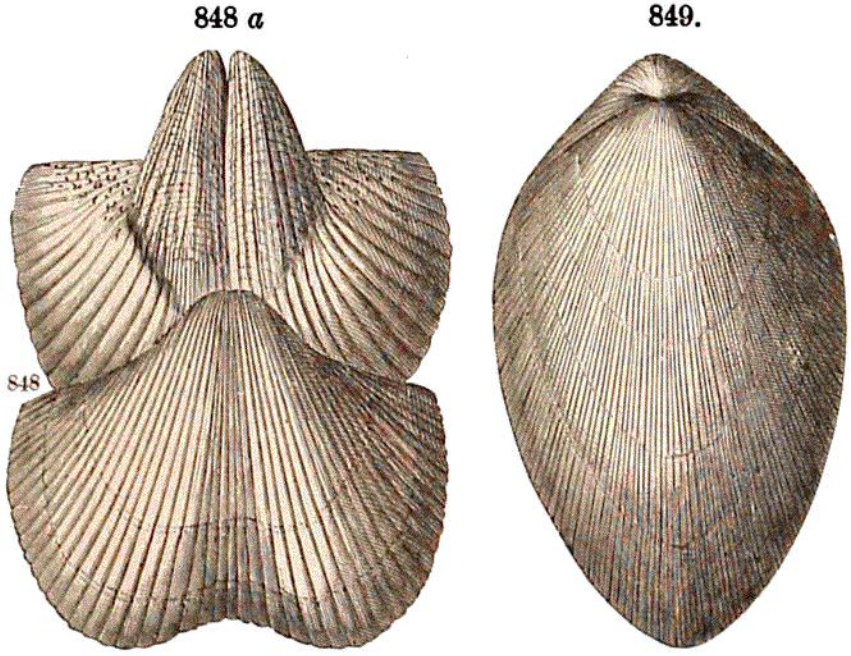
on this page are characteristic; among Gastropods, a dozen or more species of *Platyceras; Conularicæ,* one, *C. lata,* over five inches long; a few *Orthocerata;* Trilobites of the genera *Homalonotus, Dalmanites,* and others. The *Homalonotus major,* of Whitfield, had a length exceeding 15 inches, and a breadth of 5 inches. *Dalmanites dentatus,* of Barrett, has the front ornamented with a range of large triangular teeth, and is the earliest species of this type of *Dalmanites. Acidaspis tuberculata* occurs here and also in the Shaly limestone of the Lower Helderberg.



BRACHIOPODS. — Figs. 848, *a*, Spirifer arenosus; 849, Rensselæria ovoides.

With the close of the Oriskany period, the Lower Helderberg conditions of the Eastern Interior ended. The deposits no longer thickened to the eastward.

Hall remarks on the close relation of the Oriskany fauna in central New York to that of the Lower Helderberg, but in other regions, especially in Ontario and Maryland, to that of the overlying Upper Helderberg. The true Oriskany sandstone or *Hipparionyx* fauna of New York comprises 45 species (Schuchert), which are chiefly large Brachiopods, Lamellibranchs, and Gastropods, with an almost total absence of Corals and Crustacea. In contrast with this, Beecher and Clarke have shown that the Lower Oriskany fauna of Becrafts Mountain and to the southward contains more than 120 species, of which 15 are Trilobites and about 10 are Corals, and the whole fauna is transitional, showing the passage of the Lower Helderberg fauna into typical Lower Devonian.

I. C. White concluded, from his observations in eastern Pennsylvania (1882), that the beds were accumulated on the borders of the seas in which the Lower Helderberg limestones were at the same time forming in clearer waters, thus making it one with them in period of origin. The beds of the latter often pass directly into the Oriskany, as if they constituted it. In Virginia there is the same close relation to the Lower Helderberg. It is to be observed, on the other hand, that the beds of Becrafts Mountain overlie those of the Lower Helderberg. At the Delaware Water Gap the rock is largely a shale; in Maryland, a crumbling sandstone, from loss of its calcareous part; at Gaspé, a limestone, with probably a part of the underlying sandstone beds, a *Rensselæria* having been found 1100′ above the base of the sandstones. Oriskany fossils are reported also from the head of Tobique River in New Brunswick. The Nova Scotia strata of this epoch occur at Nictaux and on Moose and Bear rivers. They include a thick band of fossiliferous iron ore, which is an argillaceous deposit at Nictaux, but, owing to partial metamorphism, is magnetic iron ore, and partly specular, on Moose River. The Oriskany beds of New York are described in the *N. Y. Geol. Rep.* of Vanuxem and Hall, in Hall's *Pal. Rep.*, vols. iii. and iv.; by