

not exceeding fifty; whilst the fossil species discovered up to the present time, amount to over thirteen or fourteen hundred. They constitute moreover, at least ninety per cent. of the bivalve shells met with in the lower fossiliferous rocks.

The following are the more important genera of Canadian occurrence: *Lingula*, *Orthis*, *Strophomena*, *Leptæna*, *Spirifer*, *Athyria*, *Spirigera*, *Atrypa*, *Rhynchonella*, *Pentamerus*, and *Stricklandia*.

*Lingula* :—Shell : horny, thin, oblong, and nearly equivalve. Black and shining in our examples, and consisting largely (as first shown by Prof. Sterry Hunt), of phosphate of lime. No internal calcareous appendages. This genus ranges from the Lower Silurian epoch into the present or existing period. Numerous species occur in our Silurian formations. *L. quadrata*, fig. 89, from the Trenton Limestone, Utica Slate, and Hudson River Group (Lower Silurian,) may be cited as a common example.



Fig. 89.

*Orthis* :—Shell calcareous. Bi-convex or plano-convex; with straight hinge-line, and punctate surface. No internal supports, properly so-called. This genus ranged throughout the Palæozoic age, but was most abundant during the Silurian and Devonian periods. The species have usually a more or less circular outline, with the surface of the shell marked by fine or coarse radiating lines.



Fig. 90.



Fig. 91.



Fig. 92.



Fig. 93.

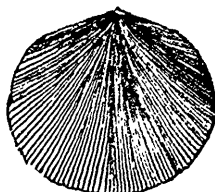


Fig. 94.

Canadian examples are exceedingly numerous; more especially those belonging to *O. testudinaria*, fig. 90, of the Trenton and higher divisions of the Lower Silurian series. Fig. 91 represents *O. trice-*