

argillaceous sandstones, occur in Thunder Bay, and especially near the Grand Falls of the Kaministiquia River, and probably belong to the Potsdam period. They overlie the Huronian rocks in unconformable stratification with these, and hence belong to a succeeding geological epoch. If of Potsdam age, the question again arises as to whether they represent a distinct series, older than the sandstone beds of the east, or whether they are to be considered of the same period of deposition. If older, they might be arranged as in the above table, under the name of the Kaministiquia formation. They are more or less altered by metamorphic action, and contain native copper, iron pyrites, and other metallic matters.

As the sandstones or shore-line deposits of the Potsdam Group form the most characteristic and widely-spread rocks of the period, as exhibited at least in Canada, it is necessary to refer to them in somewhat greater detail. In the table given above, they are designated as the Beauharnois Formation, from their especial development in the county of that name. They consist essentially of beds of sandstone of various colours, but chiefly white, green, red, brown, or yellowish; and of conglomerates of different degrees of coarseness. Many of the sandstones are fine-grained and of a purely silicious character, and some exhibit bands or stripes of different colours. With these beds, a few layers of dolomite or of more or less impure limestone are occasionally interstratified. Fossils, with the exception of fucoids, are of rare occurrence. In addition to the problematical *Scolithus* (see PART IV., page 97),* the most common is a species of *lingula* (*L. acuminata*, fig. 155), a genus which thus occurs in the very lowest of our fossiliferous rocks, and which, passing upwards through the entire series of geological formations, is still found in the seas of the existing age. Some remarkable fossil tracks occur also in our Potsdam beds. These belong to two distinct types or genera. The oldest,



Fig. 155. - *Lingula acuminata* (Conrad).

in point of discovery, were first made known by the late Mr. Abraham, of Montreal, in 1847. They were observed on the surface of a sandstone bed on the St. Louis River, in the County of Beauharnois, and were considered to be the tracks of a tortoise or some related chelonian. The examination of other examples,

*The *Scolithus* cavities figured on this page appear to differ from the common Canadian forms in being longer and more regularly cylindrical. The Canadian type is named *S. Canadensis* by Mr. Bilings. (See Revised Report on the Geology of Canada.) p. 101.