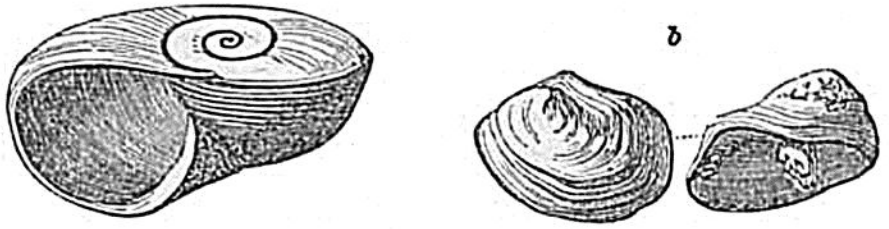
erroneously identified, an error to which he confesses that he himself contributed; and on the whole these lower beds contain, he thinks, a very distinct set of species, only three or four of them out of eighty-three passing upwards into the incumbent formations.*

Be this as it may, the Black River Limestone, No. 15, contains certain forms of *Orthoceras* of enormous size (some of them 8 or 9 feet long!), of the subgenera *Ormoceras* and *Endoceras*, seeming to represent the Lower Silurian or Orthoceras limestone of Sweden. Moreover, the general facies of the fauna of all these beds is essentially similar. Another ground for extending our comparison of the Llandeilo beds of Europe as far down as the calciferous sandstone is derived from the researches of Mr. Logan in Canada, and the study by Mr. Salter of the fossils collected by the Canadian Surveyor near the S.E. end of the Ottawa River, where one mass of limestone incloses species common to all the beds from the Calciferous Sandstone (No. 18) up to the Trenton Limestone (No. 14). In this rock, the *Asaphus gigas* and other well-known Trenton species are blended with the *Maclurea* (a left-handed *Euomphalus*, fig. 606), a genus

Fossils from Allumette Rapids, River Ottawa, Canada.

Fig. 606.



Maclurea Logani, Salter.
a. View of the shell. *b.* Its curious operculum.

characteristic of the Chazy Limestone, or No. 17; and *Murchisonia gracilis* (fig. 607) is another Trenton Limestone species found in the same Silurian limestone of Canada;† while one of the most common shells in it is the *Raphistoma?* (*Euomphalus*) *uniangulatum*, Hall, a species characteristic in New York of the Calciferous Sandstone itself.

Fig. 607.

Murchisonia gracilis, Hall.
A fossil characteristic of the Trenton Limestone. The genus is common in Lower Silurian rocks.

In Canada, as in the State of New York, the Potsdam Sandstone underlies the above-mentioned calcareous rocks, but contains a different suite of fossils, as will be hereafter explained. In parts of the globe still more remote from Europe the Silurian strata have also been recognized, as in South America, Australia, and recently by Captain Strachey in India. In all these regions the facies of the fauna, or the types of organic life, enable us to recognize the contemporaneous origin of the rocks; but the fossil species are distinct, showing that the old notion of a universal diffusion throughout the "primæval seas" of one uniform specific fauna was

* Hall; Forster and Whitney's Report on Lake Superior, Pt. II. 1851.
† Logan, Report Brit. Assoc. Ipswich, pp. 59, 63.