

Platyceeras, allied to *P. pyramidatum*, Hall.

* *Orthoceras exornatum*, Dawson.

O. Pictoense, n. s. (see infra).

O. elegantulum, Dawson.

* *Beyrichia pustulosa*, Hall.

Acidaspis, a small species allied to *A. tuberculata* of Hall
(see infra.)

Illenus.—pygidium.

In the second edition of *Acadian Geology*, 1868, the author published a list of fossils, including many of the more characteristic species above-named, and summed up his conclusion as to their age, as follows: "On the whole I regard the beds seen on the East River of Pietou as belonging to the same line of outcrop with the Arisaig series; but as probably containing in addition to the Upper member of that series beds somewhat higher in position." The fossils more recently collected so far modify this conclusion that I cannot affirm the existence of beds upward as far as the Oriskany, but must be content to regard the highest fossiliferous beds of the East River Silurian as about the horizon of the highest of those seen at Arisaig.

It still remains to inquire as to beds older than the Upper and Middle Arisaig series. As to these great caution is necessary, owing to the paucity of fossils, and to the liability to confound the Upper Silurian rocks with those of the Cobequid group.

Coming up in the anticlinals, and along the flanks of the masses of older rock, there are beds of conglomerate, brown and white quartzite and hard slates, which seem to underlie the fossiliferous beds holding the iron ores, and may represent lower members of the Upper Silurian series. In these beds vermicular markings, perhaps fucoidal and perhaps burrows of annelids, occur near Cameron's brook, and in the same beds are fragments of *Lingule*. I have little doubt that these beds are lower than those holding the iron ores, though probably not below the base of the Upper Silurian. On McLellan's Brook, Mr. Fraser has found beds holding casts of *Zaphrentis*, which may not improbably be older than the Lower Helderberg. The tail of *Illenus* referred to above was found in a small ore-bed on the Fraser (Saddler) location, and which I believe to be not improbably lower than the great beds of Hematite. These are the only fossils known to me at present, which indicate a horizon older than the Middle Arisaig. There are, however, great masses of