formly convex, gradually sloping upwards nearly (if not quite) to the hinge-line. The dorsal margin is not perfect in the specimen figured, but judging from the direction of the striæ on the surface of the cast, it is nearly straight, or at the most, only gently convex in front of the beaks, and nearly parallel with the length of the shell, sloping slightly downwards. Behind the beaks it is gently convex, nearly straight, and slopes downwards to the narrowly rounded posterior angle, the latter situated at about one-third the height of the shell. The margin behind the beaks is compressed. Close under the beaks, in front, there appears to have been a short escutcheon. From the umbones backwards for about six lines, a linear groove runs along close to the dorsal edge on each side. This may be related to the ligament.

The most projecting point of the anterior extremity appears to be situated considerably above the mid-height of the shell, near the hinge line. The posterior angle is below the mid-height.

Surface concentrically striated.

Length 3 inches; greatest height, a little in front of the mid-length 18 lines; greatest depth of both valves, just below the umbones 8 lines.

The specimen was collected by Sir W. E. Logan in the Upper Silurian rocks at Port Daniel on the Bay of Chaleurs.

Genus Pteronitella, (n. gen.)

Among the fossils collected at Arisaig, Nova Scotia, in the Upper Silurian, there are many casts of the interior, of several species congeneric with *Avicula retroflexa* (Hisinger). These show that in front of the beaks, there are several small cardinal teeth, and that close beneath the hinge line there are several more or less elongated posterior teeth. This arrangement is quite different from that of both *Avicula* and *Pterinea*, to which these shells are usually referred. There is a strong anterior muscular impression and the whole structure of the hinge resembles closely that of *Cyrtodonta*.

Prof. McCoy has noticed the teeth, in his description of *P. retroflexa* (Pal. Foss., p. 262) but does not seem to think their structure of generic importance. The above generic name is proposed, to include *P. retroflexa* and some others, soon to be described.