

In the Island of Cape Breton the rocks of the shore of Bras d'Or Lake, near Barrosois Brook, consist of various alternations of sandstones, slates and shales.¹ Some of the shales, away from the shore, on the Barrosois or McLeod Brook, contain *Dictyonema flabelliforme*, and are therefore Upper Cambrian. The coarser beds on the shore of Bras d'Or Lake which contain the fossils described below are more modern, as will appear by the following review of their fossil contents.

In the following description the fossils are arranged according to their zoological standing.

LINGULIDÆ.

LINGULELLA, Salter.

In the collections examined there are two species that may be referred to the above genus, although the impressions of the sliding muscles are more external than Mr. Salter has declared to be the case in the Welsh species, *L. Davisii*, the type of the genus. The Canadian species were collected in Cape Breton and occur in a calcareous sandstone which has suffered from dynamical movements, and the fossils are all considerably distorted: the figures of the species are adjusted for this distortion.

LINGULELLA SELWYNI, n. sp., Pl. I., Figs. 1a and b.

The form is sub-ovate, broadly rounded in front, but having nearly straight sides in the posterior half; the beak of the ventral valve is regularly pointed and that of the dorsal bluntly rounded.

The ventral valve in its interior, exhibits two large, triangular scars, where the central muscles were attached, one on each side of the rhombic pit in the posterior third of the valve. The posterior adductors appear on each side of the hinge area, and there are sliding muscles exterior to and in front of them. In front of the posterior adductor muscle, on each side of the valve, there is a low ridge extending forward as far as the scars of the central muscles: at and in front of these ridges the imprint of the main vascular trunks is visible, extending forward toward the median line.

The interior of the dorsal valve has a broad sear (posterior adductor?) just in front of the striated hinge area, and on each side of the hinge are impressions of sliding muscles. The central muscles are indicated by a group of small pits near the centre of the valve; of these the anterior adductors are oval and somewhat apart at the mid-length of the valve; the anterior adjusters are indicated by a pair of small rounder pits, a little in advance of those last named and closer together. A faint line (indicating the border of the splanchnocœle?) includes these scars and

¹ Geol. Surv. Can. Rep. Prog., 1875-6 (Fletcher's Report), p. 389.