

nosteum is of a more delicate build except for the greater clearness of the vertical pillars. If the horizontal arms are at all thickened by secondary matter the resemblance to *Stromatoporella clora* is very strong, for the quadrangular interspaces become rounded and the pillars lose their outline as in *S. clora*. In this variety there is a strong suggestion of Bargatsky's genus *Parallelopora*. The vertical section particularly resembles *Parallelopora darlingtonensis*. The fibre does not present the vacuities characteristic of that genus, unless the minute vertical tubules are morphologically equivalent. *Stromatoporella clora minuta* is founded on six fragments from Durham collected by Mr. Joseph Townsend, of Toronto.

Family—IDIOSTROMIDAE, Nich.

Genus—HERMATOSTROMA, Nich.

HERMATOSTROMA GUELPHICA, *sp. nov.* Plate IV, Figs. 1, 2 ;
Plate VI, Fig. 4

This species is founded on two very well preserved specimens, both from Elora. Neither of these examples is of sufficient size to render possible any account of the general surface characters or the size of the coenosteum. One specimen is three inches long by one and a half inch wide with a thickness of three-quarters of an inch. On the polished faces of this piece the pillars are seen to be parallel throughout and the horizontal elements to be destitute of curving ; from this it may be deduced that the coenosteum was of a considerable size and spreading rather than hemispheric in character. Latilaminar structure entirely absent.

The skeleton is composed of a series of parallel pillars of which about five occur in the space of one mm. The interspaces between the pillars are from one and a half to twice the thickness of the pillars themselves. The horizontal elements consist of rods of about the same calibre as the pillars,