Article II.— Sponges in Laurentian Rocks. 43

As only fragments of the skeleton of this sponge are known, the reference to Cyathospongia is conjectural.

In the size of its mesh this sponge may be compared with fragments of hexactinellid sponges found in the basal (Etchimenian) series of the Cambrian rocks of this region. The mesh of the sponge is much smaller than that of *Protospongia fenestrata*, Salter, of the Welsh Cambrian rocks; it is also smaller than *P. minor* of Div. 1*d*, of the St. John Group.



Fig. 1. Cyathospongia eozoica. Mag. 80 diam.

Horizon. In the quartzites of the middle division of the upper series.

The great limestone beds of the upper division are present in force at Drury's cove and vicinity, and contain beds, some of which are bitumenous and others graphitic. On examining these limestones, graphitized layers were found whose surfaces exhibited numerous spicules of sponges. Finding the sponge remains particularly abundant on the graphitic layers, I was induced to examine the surfaces of the graphite, which is found in irregular beds in the upper part of the Laurentian rocks near the Falls of the St. John river. These graphite beds proved to be remarkably rich in sponge remains. So plentiful are the groups of spicules on the layers of the rock, that the individual form of the sponge could not be made out.

HALICHONDRITES GRAPHITIFERUS. M. Sp.

I did not detect Protospongia or Cyathospongia in the graphitic shales, but there are immense numbers of simple spicules; long, acerate, and mostly in parallel sets. The sets of spicules lie across each other at all angles.

So far I have been unable to determine whether this sponge, with bands of parallel acerate spicules, is a monactinellid or hexactinellid sponge, and therefore refer it to Sir Wm. Dawson's provisional genus *Halichondrites*.

Horizon. In graphitic slates in the lower half of the upper division.

ROCKS

ion of f this rfaces se, by ags of inellid e subicules, The eleton The

sed by les are nestral cing a icules. e fourible by