

*Locality and Formation.*—Anse au Loup, on the north shore of the Straits of Belle Isle, in sandstone of the Potsdam group. Also 14 miles east of Swanton, in the State of Vermont, in rocks of the same age.

*Collectors.*—J. Richardson, Rev. J. B. Perry, and Dr. G. M. Hall.

*PALMOPHYTES CONGREGATUS. (N. sp.)*

*Description.*—Stems cylindrical, from one to four lines in diameter, often crowded together in such abundance as to completely cover the surface of the rock. They lie across each other in every direction, and appear to be so interlaced that where very thick the same stem can seldom be traced for more than one inch in length. They are either straight or crooked, and sometimes present sudden slight enlargements of the diameter, giving them a somewhat nodulose aspect.

*Locality and Formation.*—One mile south of the boundary line, on the road leading from Moor's Corners in St. Armand to Saxe's Mills in Highgate, Vermont. In the thin beds of the Potsdam group. Red Sandrock formation of Vermont.

*Collector.*—E. Billings.

AMORPHOZOA OR ZOOPHYTA.

In the limestone at Anse au Loup there are numerous fossils which from their radiated structure have the aspect of true corals, and yet in polished sections seem to possess the poriferous organization of sponges. I shall therefore leave it an open question as to which of the two divisions they should be referred. There appear to be two closely-allied genera, but for the present I shall place all the species in one.

Genus ARCHEOCYATHUS. (N. gen.)

*Generic characters.*—Turbinate simple or aggregate; cup deep. The internal structure so far as it can be made out, consists of an inner wall constituting the inner surface of the cup, and an external wall or epitheca enveloping the whole. Between the two walls there are numerous radiating septa, the interseptal spaces being filled with poriferous or cellular tissue. It is highly probable that the inner wall is permeated by pores communicating with the interseptal tissue.

In *A. Atlanticus* the radiated structure is not so well defined as it is in the others, but still it can be observed in the polished sections. In *A. Minganensis* the septa are well developed, and give to the fossil the aspect of a *Petraia* or *Zaphrentis*. It may be that these two species should be placed in different genera, but as there are numerous fragments of what appear to be intermediate forms, it would seem to be the better course to group them together in the first instance.