EOZOON CANADENSE AT CÔTE ST. PIERRE.

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not noticed by previous observers, is the occurrence of layers filled with little globose casts of chamberlets, single or attached in groups, and often exactly resembling the casts of Globigerince in greensand (Pl. X. figs. 4-10). On weathered surfaces they were often especially striking when examined with the lens. In some cases the chamberlets seem to have been merely lined with serpentine, so that they weather into hollow shells. The walls of these chamberlets have had the same tubulated structure as Eozoon (fig. 4); so that they are in their essential characters minute acervuline specimons of that species, and similar to those which I described in my paper of 1867* as occurring in the limestones of Long Lake and Wentworth, and also in the loganite filling the chambers of specimens of Eazoon from Burgess. Some of them are connected with each other by necks or processes, in the manner of the groups of chamberlets described by Giimbel as occurring in a limestone from Finland, examined by him. That they are organic I cannot doubt, and also that they have been distributed by currents over the surface of the layers along with fragments of Eozoon. Whether they are connected with that fossil or are specifically distinct may admit of more doubt. They may be merely minute portions detached from the acervuline surface of Eozoan, and possibly of the nature of reproductive buds. On the other hand, they may be distinct organisms growing in the manner of Globigerina. As this is at present uncertain, and as it is convenient to have some name for them, I propose to term them Archieosphierinæ, understanding by that name minute Foraminiferal organisms, having the form and mode of aggregation of *Globigerina*, but with the proper wall of Eozoon.

In slicing one of my specimens from Côte St. Pierre I have recently observed a very interesting peculiarity of structure, which deserves mention. It is an abnormal thickening of the calcareous wall in patches extending across the thickness of four or five lamellæ, the latter becoming slightly bent in approaching the thickened portion. This thickened portion is traversed by regularly placed parallel canals of large size, filled with dolomite, while the intervening ealeite presents a very fine dendritic tubulation. The longitudinal axes of the canals lie nearly in the plane of the adjacent laminæ. This structure reminds an observer of the Canostroma type of Stromatopora, and may be either an abnormal growth of Eozoon, consequent on some injury, or a parasitic mass of some Stromatoporoid organism finally overgrown by the Eozoen. The structure of the dolomite shows that it first incrusted the interior of the canals, and subsequently filled them—an appearance which I have also observed in some of the larger canals filled with serpentine, and which is very instructive as to their true nature.

From the above facts the true nature of *Eozoon* may, I think, be rendered evident to any geologist, however little he may have made the fossil Foraminifera a subject of study. The theories as to its origin may be summed up thus :—

1. The complicated theory of pseudomorphism and replacement,

* Quart, Journ. Geol. Soc. vol. xxiii. p. 260.