

by Mr. Billings, several are referred to new genera. The limestone of Anse au Loup on the north shore of the Straits of Belle Isle, has furnished two peculiar corals (or sponges) somewhat resembling *petraia* or *zaphrentis*, but considered by Mr. Billings to belong to a distinct genus, which he names *Archeocyathus*. The form is turbinate, simple or aggregate; the cup deep, and composed apparently of two walls with connecting radiating lamellæ, between which, poriferous tissue is distributed. The inner wall, according to Mr. Billings, appears to have been traversed by pores, affording a communication between the inside of the cup and the spaces filled with the interseptal tissue. One of the species is named *A. Atlanticus*, the other *A. Minganensis*. The latter passes upwards into the calciferous group, and is the form previously described by the author (from internal casts) as a *petraia*. Amongst the Brachiopods, which include species of *Obolus*, *Orthis*, *Orthisina*, and *Camerella*, there is also a newly-determined genus. On this, Mr. Billings bestows the name of *Obolella*, from its relationship to *Obolus*. In the latter, the smaller ends of the central pair of muscular impressions belonging to the ventral valve are directed downwards and towards each other, whilst in *Obolella*, according to Mr. Billings, the reverse of this occurs. The shell is of the ordinary calcareous character, and does not exhibit the dark lustrous appearance common to most species of *Obolus*. Two species are enumerated; but one of these, *O. cingulata*, from Anse au Loup, and from Swanton, Vermont, Mr. Billings considers may be still generically distinct.

The trilobites of these Potsdam rocks are more especially interesting. In addition to the much discussed *Paradoxides*, first discovered in the Potsdam beds of Vermont, and of which examples have since been found at Anse au Loup, Mr. Billings describes no less than five species of the genus *Conocephalites*, and two belonging to *Bathyrurus*. The first of these genera, it is now well-known, is eminently characteristic of the Primordial Zone of Europe. The occurrence of the *Paradoxides* or *Oleni* at the distant locality of Anse au Loup, is a fact of much importance in settling the true position of the Vermont strata. Their discovery is due to Mr. Richardson, of the Geological Survey, who has traced out on the north shore of the Straits of Belle Isle a complete sequence of the lower fossiliferous beds.

At the close of this publication, descriptions are given of some new fossils from the Calciferous, Chazy, Black River, and Trenton formations. The more important of these comprise several sponges,