

thus, as found in *E. profundum*, *E. Minganensis* and *A. Atlanticus* (Pal. Foss., vol. i, p. 354, 1865), says:

"The following are some additional details of the structure of this remarkable genus: The general form, as exhibited by the three species at present known, is that of an elongated hollow cone, or, rather, a hollow cylinder with one end narrowed to a point, the smaller extremity being closed and more or less curved; the larger end open. They thus resemble certain large species of *Zaphrentis* or *Cyathophyllum*, and, in fact, from their form and septate structure, were at first thought to be corals. Some of the individuals appear to have obtained a length of two or three feet, with a diameter of three or four inches.

"All of the species are transversely and more or less deeply marked by irregular annulations. The structure consists of an inner thin wall or endotheca, lining the great central cavity, an outer wall or epitheca, forming the rough external surface, and between these a system of radiating septa. The outer wall in two of the species, *A. profundus* and *A. Minganensis*, is perforated with numerous small irregular apertures leading directly into the loculi or empty spaces between the septa. In the third species, *A. Atlanticus*, it (the outer wall) appears to have a

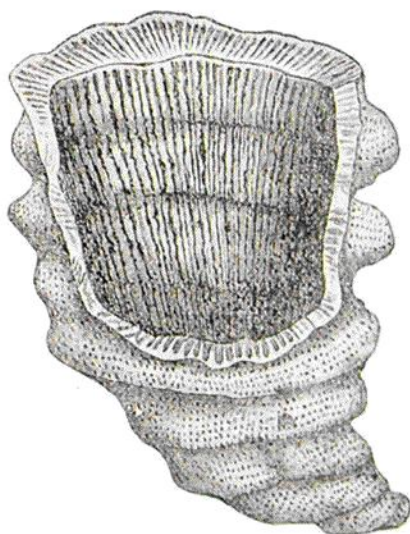


FIG. 6.



FIG. 7.



FIG. 8.

FIG. 6. *Ethmophyllum Minganensis* (after Billings).

FIG. 7. *Ethmophyllum Minganensis* (enlargement of surface).

FIG. 8. *Ethmophyllum Minganensis* (spicula, enlarged to 50 diameters).

compact, smooth surface, with only a few perforations. The inner wall is very thin, with numerous pores leading from the loculi into the great central cavity. The septa consist of thin, flat plates, arranged longitudinally exactly as in the genus *Zaphrentis*. They extend from the outer to the inner wall and are perforated with numerous small circular pores, so that the interseptal loculi all communicate with each other as well as with the central cavity and the exterior. The loculi are sub-