

of a square network, but certain of the squares are somewhat rounded as if by the presence of astrorhizal canals. The astrorhizal systems are delicate and appear to be superimposed, as a wall-less axial canal can be made out on parts of a vertical surface. The pillars are continuous and, in good sections, may be traced through as many as ten laminae.

Tangential sections (Pl. I, Fig. 1) exhibit the round ends of the radial pillars and very faintly, owing to imperfect preservation, the whorls of connecting arms typical of the genus *Actinostroma*. Astrorhizal canals are present but appear to be extremely delicate; the sections are not sufficiently good to afford a full description of these structures.

The character of the skeletal matter is extremely like that of *Actinostroma stellulatum*, Nich. Although this species is European and Devonian, I should be inclined to place the present example under the same head were it not for the peculiar volcano-like structures above described, which, as far as I am aware, have not previously been observed in any Stromatoporoid.

From *Clathrodictyon ostiolatum* and from *C. striatellum* the species under review is distinguished by the more numerous laminae in a given space, seven or eight occurring in a mm. while only five occur in the *Clathrodictyons*. The continuity of the radial elements is of course convincing, but unless the section is strictly vertical mistakes may easily occur. Tangential sections show distinctly the much greater size of the cut ends of the radial pillars. At first I was much confused by the volcano-like structures, thinking them to be the cylinders of Nicholson's *C. ostiolatum*. However I am now convinced that they are not even analogous, for Nicholson's cylinders are composed of concentric laminae wound around the long axis, while the structures here described are quite different in the arrangement of the laminae. The species is founded on three fragments from Durham, Ont.