"As regards its internal structu e, the coenosteum is composed of bent and crumpled concentric laminae, of which about five (or four interlaminar spaces) usually occupy the space of 1 mm. As shown by vertical sections (Pl. I, Fig. 6) the laminae are bent in two ways. n the first place they are bent into numerous chevron-like foldings, no traces of which appear on the surface of the coenosteum. In the second place each lamina is minutely crumpled or inflected in such a way that the interlaminar spaces are constricted into rows of very imperfect and more or less open vesicles. The radial pillars are developed from the point of inflection of the laminae, but are thin and largely imperfect. Hence, in vertical sections, the bent and crumpled laminae are far more conspicuous than the radial pillars. Tangential sections exhibit the irregularly sinuous and vermiculate edges of the transversely divided and folded laminae, the cut ends of the radial pillars appearing in these as dark rounded dots. Occasionally we may also recognize in tangential sections scattered points round which rows of dots are disposed in a radiating manner. Such points represent the centres of small astrorhizae.

"*Obs.*—*C. fastigiatum* has certain relationships with *C. variolare*, Rosen sp., and specimens occasionally occur which present a mixture of the ch. racters of the two forms. In typical examples, however, the present beautiful species cannot readily be confounded with any other known member of the genus *Clathrodictyon*. It is distinguished from its nearest allies (viz. *C. vari lare*, Rosen, nd *C. vesiculosum*, Nich. and Mur.) by the greater remotene s of the concentric laminae, and by the peculiar and constant chevron-like and angular folds into which the laminae are thrown. The appearances presented by tangential sections are also exceedingly characteristic, and quite unlike those seen in any other species of *Clathrodic yon* wit h which I am acquainted. The very imperfect development of the astrorhizae is also a point in which the