

apposed minute glistening white granules. The margins of the mouths of the dactylopores are often slightly raised above the general surface.

The older pores of the cœnosteum are very deep and, as may be seen in longitudinal sections of the branches or stems (*t.o.*), commence deep down within the stem near its axis, and bend outwards on all sides to the surface of the branch with a nearly uniform curve. The cœnostea of all Stylasteridæ are traversed in all directions by a system of freely anastomosing and branching canals. In the case of *Sporadopora*, these canals are especially abundant and form comparatively close meshworks, hence the whole cœnosteum is spongy and excessively porous when seen in section (Pl. II. fig. 1). The cœnosteum may, with most truth, be said to be built up of a series of hard partition walls, intervening between and enclosing a highly complex system of tortuous canals and cavities. The meshwork formed by these canals is closer and smaller towards the surface of the cœnosteum, more open and with wider meshes in the deeper regions. In the deeper regions the main canals, as will be seen from the figure, follow more or less the curved directions taken by the walls of the pores on their way towards the surface. There is no main system of canals in the axis of the stem connecting all the zooid cavities. The deep canals become more or less filled up, and the only connection between distant zooids is by the more superficial living meshworks. In some places irregular cavities of some extent occur amongst the smaller canals, and beneath the ampulla (Pl. II. fig. 1, G). At the very surface, the canal reticulation is very fine indeed.

The pores are cylindrical pits sunk in the spongy mass of the cœnosteum, and their walls are perforated all over by the openings of numerous canals. At their bottoms their cavities pass off into a few large main canals of the meshwork. The styles of the gastropores are very long, and can be traced deep into the axes of the branches of cœnosteum, they having become elongated as the growth of the pores and cœnosteum required it. In their deeper regions, these slender styles show a surface composed of a few dentate ridges (Pl. XXXV. fig. 1, S) only, whilst in their upper and functionally active region they terminate in a long brush-like mass, composed of complicated branchings of fine and delicate calcareous spicules. At the base of this brush-like part of the style, a very thin calcareous partition or "tabulæ" (Pl. II. fig. 1, T) is sometimes present, stretched across the pore cavity at right angles to its axis. Sometimes two or three such tabulæ are present in a single gastropore, placed at successively deeper intervals. In some instances, two tabulæ occur close together in a pore, one above the other. These tabulæ are so excessively thin that I considered them at first to be membranous, but I have been unable to dissolve them by the use of very strong alkalis, and I am now convinced that they are calcareous. They do not seem to occur in all the gastropores, and I have not observed them in any instance in the dactylopores. The dactylopores vary much in size, as will be seen from the figures.