

of a large oscule appears as a dark circle surrounded by an annulus,—the slightly everted margin, which by its snow-whiteness stands in contrast with the slightly brownish tint of the general surface; the smallest oscules are indicated by a white dot, the wall and not the lumen of the oscular tube being alone visible. The appearance given by these white dots and circles to the oscular surface is very characteristic. The pores, 0.03 to 0.1 mm. in diameter, occur in sieves (Pl. XXII. fig. 14) overlying chones, which, like the oscular chones, are provided with thick walls of fibrous collenchyma, in which are frequently dispersed small oval vesicular cells, 0.015 mm. in diameter, containing numerous deeply stained, minute, spherical granules. Similar cells are scattered through the collenchyma and adjacent sarcenchyma of the choanosome, chiefly when it surrounds the larger canals. The thickness of the collenchymatous wall and the diameter of the lumen of the chone are highly variable, and stand in no constant relation to one another (Pl. XXII. figs. 15–18). Thus in the case of the poral chones we have the following measurements:—In one case, diameter of the lumen 0.019 mm., diameter of the entire chone from sterraster to sterraster 0.193 mm.; in another, diameter of the lumen 0.129 mm., of the chone 0.193 mm.; and in a third, diameter of the lumen 0.039 mm., and of the chone 0.039 mm., or practically no distinct wall at all. This variation does not depend on the state of contraction of the fibrous collenchyma, either it is accidental or due to age or some other unknown cause. About the pores, on the one hand, and the inner termination of the chone on the other, the fibrous collenchyma passes into true myenchyma, the myocytes of which are arranged concentrically, sphincter-like.

The pore-sieves are more richly scattered over some portions of the porous surface than others. The margins of the sieves are surrounded by the sterrasters of the cortex, the margins of the pores by the spherasters of its outermost layer. This at least is the appearance presented by a slice taken tangentially; as a matter of course the spherastral layer extends over the whole exterior of the sponge, but the sterrasters do not extend into the poral roof, or do so only occasionally.

The poral chones lead into incurrent canals, which, like the excurrent canals, are provided with collenchymatous walls of very variable thickness; both sets of canals are frequently crossed by velar diaphragms which convert them in many cases into a succession of vesicles. Sometimes in the same collenchymatous tract a double row of vesicles may be seen running side by side, and communicating laterally at intervals, the result apparently of the conversion of an originally single canal into two by an excessive development of collenchyma.

The incurrent canals sometimes descend directly from the chone radially into the sponge, sometimes they first extend tangentially to the inner surface of the cortex.

The oscular chones are similar to the poral but larger, and without the sieve-like roof (Pl. XXII. fig. 13). They vary in size considerably; a somewhat small example measured 0.478 mm. in diameter, and the lumen 0.318 mm. in diameter, the walls in this instance