Siphonidium capitatum,

Figure 1. The sponge; nat. size.

" 2-21. Spicules—

- Fig. 2. Ectosomal desma; × 292.
- ,, 3-8. Various forms of choanosomal desma; × 95. Fig. 3 represents a form frequently assumed when the desma occurs immediately below the external surface.
- ,, 9-15. A series of young desmas, arranged in the order of age; fig. 9 represents an example scarcely advanced beyond the stage of crepis, in fig. 14 the crepis is to be seen in the

- middle of the spicule. Fig. 9×200 , figs. $10-12 \times 360$, figs. 13, 14×200 , fig. 15 $\times 95$.
- Figs. 16, 17. Three examples of the oxytylote, showing the much enlarged axial canal; × 200.
 - ,, 18-20. The tylote terminations of other examples; × 200.
 - Desmas in zygosis; on the right lower corner of the figure a small secondary desma is to be seen; × 95.
- " 22. The skeleton of the terminal part of one half of one of the tubular processes of the sponge, cut longitudinally; × 95.
- 23. Transverse section through the wall of one of the tubes; × 73. The thin line tinted brown and blue situated to the right, separated from the rest of the section, represents the displaced outer membrane which bounds the exterior of the sponge.
- ., 24. Part of a transverse section, to show the collenchymatous layer in the interior of the tube; × 49.
- " 25. Section through the choanosome, showing flagellated chambers; × 292.
- " 26. Vacuolar structure seen in the collenchyma of fig. 24; × 292.
- " 27. Vacuolated tissue lying below the external membrane of the sponge; × 360.