## Figure 1. Several examples of the sponge; nat. size.

## " 2-8. Spicules-

Fig. 2. Oxea; × 32.

- " 3. Somal orthotriæne; × 32.
- ,, 4. Anatrizene; × 32.
- " 5. Cladal end of an anatriæne; × 292.
- Fig. 6. Cladal end of an anatriæne, reduced to an anamonæne; × 292.
  - , 7. Cloacal orthodiæne; × 32.
- ,, 8. a-d, various forms of sanidaster; c, closely approaches a chiaster; × 576.
- ,, 9. Vertical median section through the body of the sponge, including the basal portion of the cloacal tube; × 7.
- ,, 10. A part of the preceding, more highly magnified to show the passage of the cloacal tube into the body; × 15.
- ,, 11. The skeleton of the basal part of the cloacal tube seen en face; × 49.
- " 12. Longitudinal transverse section through the base of the cloacal tube, showing the development of the orthodiænes; × 300.
- 13. Part of a transverse section through the base of the cloacal tube and surrounding choanosome of the sponge body. The part of the figure below "13" represents the tissue of the cloacal tube; x 15.
- ,, 14. Part of the preceding, showing the arrangement of the spicules of the cloacal tube in radial series, the youngest spicules being situated nearest the exterior (lower part of the figure); × 180.
- " 15. Longitudinal section through the cloacal tube, showing the general disposition of the soft parts; × 15.
- ,, 16. Longitudinal but not median section through the cloacal tube, cutting the inner wall tangentially; × 15.
- ,, 17. Transverse section through the base of the cloacal tube and surrounding sponge; dichotriænes occur in this region, but nowhere else; × 15.
- ,, 18. Transverse section through the cloacal tube; × 15.
- " 19. A single example of an oxyaster observed within its scleroblast; × 430.
- ,, 20. The youngest example of orthodisene observed, seen within its scleroblast; × 300.
- ,, 21. One of the granule cells which occur somewhat abundantly scattered through the choanosome; × 292.