

sheath; b^1 the terminal expansion of b^1 ; d the medusæ; r the branching base of the stem; t the coronal tentacles; $t^1 t^2$ the buccal tentacles. 8 diameters.

Fig. 8^a. View of the abactinal side of the head of a hydra. $b^1 b^2 d$ as in fig. 8; $t^1 t^2 t^3$ coronal tentacles in various stages of growth. 8 diameters.

Fig. 18. The retiform stolonial basis of the hydra of *Hydractinia polyclina*. a the outer wall at the edge of the depressions (d); b inner wall; b^1 granules circulating in the channels; c cells of a , in profile; d depressions in the outer wall, which sometimes appear to be open spaces. 400 diameters.

PLATE XXVII.

Figs. 1-7, *BOUGAINVILLEA SUPERCILIARIS* Ag.; Figs. 8 and 9, *CLYTIA CYLINDRICA* Ag.; Figs. 10-26, *THOA (EUDENDRIUM) DISPAR* Ag.

[Figs. 1, 6, 9, 10, 11, 12, 13, 22, 23, 24, 25, 26, drawn by A. Sourel; the others by H. J. Clark.]

Fig. 1. A hydromedusarium. Natural size.

Fig. 2. A portion of fig. 1. $a-d$ rings of the stem; A B medusa-buds. 25 diameters.

Fig. 3. The head of a hydra and the upper part of a branch of fig. 1. a outer, and b inner wall of the head; a^1 outer, and b^1 inner wall of the proboscis; a^2 outer, and b^2 inner wall of the tentacles; c the horn-like sheath; c^1 the termination of c ; d digestive cavity; m mouth; $t^1 t^2$ tentacles. 200 diameters.

Fig. 4. A young head of a hydra, almost ready to burst its envelope. a outer, and b inner wall; a^1 outer, and b^1 inner wall of the proboscis; a^2 outer, and b^2 inner wall of the tentacles; c c^1 the horn-like sheath; d digestive cavity. 300 diameters.

Fig. 5. A medusa-bud and the pedicel. a outer, and b inner wall of the pedicel; c inner wall of the medusa, containing the radiating tubes; i the horn-like sheath. 300 diameters.

Fig. 6. A bud considerably older than fig. 5. c c^1 horn-like sheath; t base of c . 300 diameters.

Fig. 7. A medusa-bud in which the circular tube (l) is nearly complete. $a b c d^1 i$ as above; l circular tube; u the proboscis. 300 diameters.

Fig. 8. The medusa of *Clytia cylindrica*, seen from below. a the edge of the opening in the veil; b the circular tube; c the tentacles; c^1 the tentacles budding; c^2 the base of c ; d the proboscis; e the radiating tubes; e^1 the genital organs; f ocular organs. 40 diameters.

Fig. 9. The same as fig. 8, seen obliquely from below. g the disk.

Fig. 10. A branch of *Thoa dispar*: the male. A A young head; B heads destitute of medusoids; C medusiferous heads. 25 diameters.

Fig. 11. A head from fig. 10. p the proboscis. 25 diameters.

Fig. 12. A head from fig. 10, bearing young medusæ. md medusæ; p the proboscis; t the tentacles. 40 diameters.

Fig. 13. Similar to fig. 10, C. d base of the medusa pedicel; d^1 the digestive cavity; md medusæ; p the proboscis. 40 diameters.

Fig. 14. An incipient medusa-bud from fig. 10. a outer, and b inner wall; c chymiferous cavity. 300 diameters.

Fig. 15. A little older than fig. 14, with the same letters. 300 diameters.

Fig. 16. From fig. 10: the primary medusa. a outer, and b inner wall of the pedicel; a^1 disk; ca disk cavity; p proboscis. 300 diameters.

Fig. 17. A medusa much older than fig. 16. Letters as in fig. 16, and l lasso-cells. 300 diameters.

Fig. 18. The primary (A) and secondary (B) medusa, far advanced, the tertiary medusa (C) just forming. a outer, and b inner wall; c^1 the inner, or axial wall; ca disk cavity containing the spermatie mass; c constriction between A and B; c^1 constriction between B and C; p proboscis; p^2 the homologue of p . 300 diameters.

Fig. 19. An exterior view: the primary medusa (A) nearly mature, the secondary (B) and tertiary (C) far advanced. The letters as in fig. 18. 300 diameters.

Fig. 20. A, an immature spermatie particle from fig. 19. A: 500 diameters. B, diagrammatic, to show the form.

Fig. 21. A, a mature spermatie particle: 500 diameters. B, a diagrammatic figure, to show the form.

Fig. 22. A head and branch of a female hydromedusarium. $a b$ the young medusæ; $md md^1$ nearly mature medusæ; p the proboscis; t coronal tentacles. 25 diameters.

Figs. 23, 24, and 25. The same as fig. 22, with corresponding letters. 40 diameters.

Fig. 26. A view from above of fig. 22. dc the disk; m the mouth; p proboscis; t coronal tentacles. 60 diameters.

PLATE XXVIII.

CLYTIA POTERIUM Ag.

[Figs. 1 and 2, drawn by A. Sourel; the others by H. J. Clark.]

Figs. 3, 4, 5, 6, 7, 8, 9, 10, 13, 13^a, 15, and 19, are magnified 100 diameters; figs. 11, 12, and 14, 200 diameters; fig. 16, 60 diameters; figs. 17, 17^a, 18, and 20, B C, 500 diameters; fig. 20, A, diagrammatic.