EXPLANATION OF THE PLATES.

PLATE XX.

CORYNE MIRABILIS, HALOCHARIS SPIRALIS, CLAVA LEPTOSTYLA, RHIZOGETON FUSIFORMIS.

[Figs. 11 to 16a, drawn from nature by A. Sonrel; the others by H. J. Clark.]

Figs. 1 to 9. Coryne mirabilis *Ag.*

Fig. 1. The end of a hydra stem rejuvenating. *a* the horn-like sheath; *b* the stem of the hydra; b^1 the expanded end of *b*, attached to *a*. 200 diameters.

Fig. 2. The stem of a hydra one half of an inch below the tentacles, to show the numerous lasso-cells in the outer wall (*a*), where they cannot possibly perform any prehensile function, as they are covered by the thick, horn-like sheath (*c*). *b* the inner wall; *d* chymiferous canal. 400 diameters.

Fig. 3. Two young hydræ budding from opposite sides of the stem. *a* outer, and *b* inner wall of the bud; a^1 outer, and b^1 inner wall of the parent stem; *c* the horn-like sheath, which, at c^1, covers the buds; *d* the chymiferous canal. 200 diameters.

Fig. 4. A young hydra, with two incipient tentacles (*t*), budding from an old hydra stem (*d*). *c* horn-like sheath of *d*; d^1 mouth of the young hydra. 100 diams.

Fig. 5. A young hydra with four tentacles (*t*). Letters as in fig. 4. 100 diameters.

Fig. 6. A young hydra with eight tentacles, strongly contracted. *a* outer, and *b* inner wall of the head; a^1 outer, and b^1 inner wall of the stem; *c* horn-like sheath, which, at c^1, covers the head; *d* digestive cavity; *t* tentacles. 300 diameters.

Fig. 7. Proboscis of a young medusa, not long free, to show the replication of the walls. *a* the inner wall folded outward; *b* the outer wall of the second plication; *c* base of the proboscis. 400 diameters.

Fig. 8. A papilliform tentacle of the medusa of fig. 13, Pl. XVII. a^1 the outer wall of large hyaline cells; b^1 inner wall; d^1 chymiferous cavity. 500 diameters.

Fig. 9. End of the tentacle of a young medusa not long free. *a* papillate bodies on the surface; *b* groups of lasso-cells; *c* outer wall. 400 diameters.

Fig. 10. The hydra of Halocharis spiralis *Ag.*, with its Corynoid tentacles (*t*) developed from base to apex. *a* outer, and *b* inner wall. 100 diameters.

Fig. 10a. The same as fig. 10, strongly contracted. 100 diameters.

Fig. 10b. The upper part of fig. 10, more highly magnified. *a* outer, and *b* inner wall of the body; a^1 outer, and b^1 inner wall of the tentacle; *d* digestive cavity; d^1 mouth. 200 diameters.

Fig. 10c. A tentacle of fig. 10b, with the same letters. 200 diameters.

Figs. 11 to 15. From a bunch of female medusæ of Clava leptostyla *Ag.* All magnified 200 diameters.

Fig. 11. A medusa containing two eggs. *a* outer, and *b* inner wall of the pedicel; a^1 outer and only wall of the disk; b^1 eggs; b^2 Purkinjean vesicle; b^3 end of the inner wall; *d* the proboscis; *e* cavity of *d*.

Fig. 12. A medusa containing a segmenting, mulberry-like mass (b^1).

Fig. 13. Medusa similar to that of fig. 12, but the segmenting mass, b^1, more minutely divided.

Fig. 14. A medusa containing two or more very young, irregularly spherical planulæ or young hydræ (b^1). *d* the proboscis.

Fig. 15. A medusa whose planulæ (b^1) are elongate pyriform, and about to escape. e^1 chymiferous canal of the pedicel; the other letters as in fig. 11.

Fig. 16. A group of male medusæ of Clava leptostyla *Ag.* A A have discharged their spermatic particles; B a half-grown medusa; the other two full-grown. *a* wall of the medusa; b^2 spermatic mass; *d* the proboscis. 200 diameters.

Fig. 16a. Spermatic particles from fig. 16. 800 diameters.

Figs. 17 to 23. Rhizogeton fusiformis *Ag.*; the male; all but fig. 23 magnified 100 diameters. All the figures have corresponding letters. *a* and a^1 the outer wall