

and *b* inner wall of the hydra; *d* digestive cavity; *l* lasso-cells. 400 diameters.

Fig. 8. A two-thirds grown medusa. *a b d l* as in fig. 7; *b'* inner wall of the medusa; *b'* point of transition of *b'* into the wall of the proboscis *c*; *e* cavity of the disk, containing the spermiatic mass. 400 diameters.

Fig. 9. A ripe medusa. *a* outer *b* inner wall of the peduncle; *b'* as in fig. 8; *c* proboscis; *d* digestive cavity; *e* the spermiatic mass.

Fig. 9^a. Spermiatic particles from fig. 9; *A* is magnified 500 diameters; *B* an exaggerated figure to show the form of *A*; *h* the so-called head; *t* the filament.

Fig. 10. Lasso-cells from the medusæ of fig. 4. 500 diameters.

Fig. 11. Lasso-cells from fig. 2^c. *a* a closed cell; *b* a cell with the thread (*c*) out; *b'* the base of *c*. 800 diameters.

PLATES XVII., XVIII., and XIX. represent the structure and growth of one of the most common Hydroids of the Bay of Boston, and the mode of growth and structure of its medusa, which I have already described in my first paper on the Acalephs of North America, under the name of *Sarsia mirabilis*.

PLATE XVII.

CORYNE MIRABILIS Ag.

[Figs. 1, 1a, 3, 4, 5, 6, 7, 8, 9, 10, and 11a drawn by A. Sorel; the others by H. J. Clark.]

Unless when stated otherwise, the following letters refer to the same parts in all the figures. *a* inner wall of the hydra; *b* outer wall; *c* horn-like sheath; *cn* top of the stem; *d d'* digestive cavity of the stem and head of the hydra; *dc* disk of the medusa; *m* mouth of the hydra; *md* medusa buds; *n* proboscis; *p* peduncle of the medusa; *pr* transverse veil of the medusa; *r* tentacles of the medusa; *s* stem of the hydra; *t* tentacles of the hydra.

Fig. 1. A group of hydram attached to a sea-weed. It being the beginning of the breeding season (January 31, 1855), the young medusa buds are not conspicuous. Natural size.

Fig. 1^a. A portion of fig. 1 magnified about 20 diameters. *a* a very young hydra bud.

Fig. 2. A single individual, showing that the medusæ are sometimes developed among the tentacles (see *md*). *m* other medusæ below the tentacles. 40 diameters.

Figs. 3 to 8. Show the various ages and attitudes of the hydra. *a a'* medusæ buds in different stages of growth. 40 diameters.

Fig. 9. A head of a hydra, contracted, showing the horn-like sheath (*c*) separated from the neck. 100 diameters.

Fig. 10. A group of hydro-medusæ late in the breeding season (April 25, 1855), when the heads are resorbing and the medusæ are prominent. (See figs. 11, 12, 13, 14, and 15.) Natural size.

Fig. 11. A male hydra from fig. 10, the medusa persistent, and developing the spermiatic mass around the proboscis (*n*) to an enormous extent. 60 diameters.

Fig. 11^a. View of fig. 11 from the actinal end.

Fig. 12. A male hydra from fig. 10; the almost perfect medusa is persistent and withering, having discharged its spermiatic contents. *d* peduncle of the medusa. 40 diameters.

Fig. 13. Similar to fig. 12, but the tentacles of the hydra have begun to be resorbed. The medusa is proportionately larger, and has no tentacles. 40 diameters.

Fig. 14. The head of the hydra is nearly all resorbed, and the medusa, without tentacles, is withering, having discharged its spermiatic particles. 40 diameters.

Fig. 15. The head of the hydra, a female, is altogether resorbed, and the medusa terminates the stem, like a head. *a'* the radiating canals, of which there are five. 60 diameters.

Fig. 16. A female medusa attached to a hydra, and the proboscis enormously distended and crowded with eggs. 40 diameters.

PLATE XVIII.

CORYNE MIRABILIS Ag.

[All the figures are drawn from nature by H. J. Clark.]

Figs. 1 to 12 are magnified 400 diameters.

Fig. 1. A medusa just beginning to bud. *a* inner and *b* outer wall of hydra; *c* inner and *b* outer wall of the bud.

Fig. 2. The medusa bud already semi-globular. *a* outer and *b* inner wall of the hydra; *c* inner and *d* outer wall of the medusa; *e e'* chymiferous cavity leading into the medusa.