

EXPLANATION OF THE PLATES.

the horny sheath; *a*³ the expansion of the sheath at the base of the head; *d*⁴ the meduse; *e*¹ *e*² the inner and outer rows of proboscidal tentacles.

Fig. 4. A young medusa-bud, just rising from the disk of the hydra. *a* outer, and *b* inner wall; *d* chymiferous cavity.

Fig. 5. A medusa-bud from the hydra disk. *a* outer, and *b* inner wall; *c* *c*¹ radiating tubes; *d* digestive cavity.

Fig. 6. A medusa-bud from the hydra disk, already one-sided. *a* *b* *c* *c*¹ *d* as in fig. 5; *c*² the incipient tentacle.

Fig. 7. A little older than fig. 6, but from the base of the tentacle of figs. 14 and 14^a. *a* *b* *c* *c*¹ *c*² as in fig. 6; *b*¹ inner wall of *c*².

Fig. 8. A little older than fig. 7. From the hydra. The letters the same; *b*² an incipient primary medusa.

Fig. 9. Considerably older than fig. 8. From the hydra. *a* *b* *b*¹ *c* *c*¹ *c*² *d* as before; *a*¹ horny sheath; *b*¹ a secondary medusa-bud; *d* chymiferous cavity.

Fig. 10. A medusa with four medusa-buds, *a*¹ *b* *b*¹ *b*², *c* the tentacle. From the hydra.

Fig. 11. A medusa in which the circular tube (*b*²) is already developed. From the hydra. *a* outer, and *b* inner wall; *b*¹ the radiating tubes; *b*² circular tube; *c* the incipient bud of a secondary medusa; *c*¹ the tentacle of *c*; *d* outer, and *d*¹ inner wall of the proboscis; *d*² digestive cavity; *e* disk cavity; *f* *f*¹ secondary medusa; *g* tentacle of the primary medusa.

Fig. 12. A medusa nearly ready to break loose from the hydra. *a* outer, and *b* inner wall; *b* junction of radiating (*b*¹ *b*² *b*³) and circular (*b*²) canals; *b*⁴ hollow base of the tentacle (*g*²); *c* a primary medusa; *c*¹ a secondary, and *c*² a tertiary medusa; *d* digestive cavity; *d*¹ proboscis; *e* disk cavity; *f* an incipient group of medusae; *g* *g*¹ tentacle of *c*; *g*² tentacle of the parent medusa.

Fig. 13. A medusa a little older than fig. 12; looking toward the inner face of the tentacle. The letters as in the last; also *f*¹ *f*² *h* the same as *f* in fig. 12; *i* a primary medusa, a little younger than *c*; *i*¹ *i*² secondary and tertiary medusa of *i*; *g*² tentacle of *i*.

Fig. 14. A medusa just set free, seen with the tentacle in profile. *b* the radiating canal; *b*² circular canal; *b*⁴ the hollow base of *g*; *b*⁵ the canal opposite the tentacle (*g*); *d*¹ the proboscis; *d*² the remains of the pedicellar attachment; *f*² medusa-buds; *g* the tentacle; *l* aperture of the veil (*P*); *n* the prolonged edge of the disk.

Fig. 14^a. View of fig. 14, from the side opposite to the tentacle, and obliquely from below. Letters as in fig. 14; also *d*, the digestive cavity.

Fig. 15. A medusa, drawn about twenty-four hours after it dropped from the hydra; the tentacle next the observer. The letters as in figs. 14 and 14^a; also *g*¹ the solid part of the tentacle; *k* the pair of pigment bands on each side of the odd radiating canal; *k*¹ base of *k*; *k*² base of the other bands (*k*¹).

Fig. 15^a. View from above of fig. 15, with the same letters. Also *k*¹, the ends of the pair of pigment-bands.

Fig. 15^b. The proboscis of fig. 15, elongated. *a* outer, and *b* inner wall; *c* mouth; *d* the base.

PLATE XXVI.

Figs. 1-6. TUBULARIA COUTHOUYI Ag.; Figs. 7-17. CORYMORPHA PENDULA Ag.; Fig. 18. HYDRACTINIA POLYCYLINA Ag.

[Figs. 1-5 and 18, drawn by H. J. Clark; fig. 6 by J. H. Richard; figs. 7-17 by Wm. Tappan.]

Fig. 1. A hydra just escaped from the parent. *a* the stem; *b* the coronal tentacles; *c* the buccal tentacles; *d* the base of *b*. 100 diameters.

Fig. 2. The same as fig. 1, in an expanded state, with the same letters.

Fig. 3. The medusa with the hydra of fig. 1, before it escaped. *a* outer, and *b* inner wall of the pedicel; *c* point of junction of the circular and radiating (*c* *c*¹) tubes; *d* the proboscis of the medusa, seen through the hydra (*f*¹); *c*² base of *c* and *c*¹; *f*² tentacles of *f*. 100 diameters.

Fig. 4. A branch of withering medusa. *a* the branch; *b* *c* *d* *e* the medusae in various stages of decadence. 100 diameters.

Fig. 5. A part of a medusiferous branch, to show the relations of its walls to those of the medusa. *a* the outer, and *b* the inner wall of the branch; *a*¹ the outer, and *b*¹ the inner wall of the branchlet; *c* *c*¹ the chymiferous cavity; *d* the radiating tubes of the medusa; *e* the proboscis. 60 diameters.

Fig. 6. The hydra a short time after birth, attached to the stem of the parent (T). *p* the proboscis; *s* the stem; *s*¹ the base of *s*; *t* coronal tentacles. 40 diameters.

Figs. 7 and 9-17. Hydromedusarium of Corymorphidae, in various attitudes. *a* the proboscis; *d* the meduse. Natural size.

Fig. 8. A hydra, with the upper third of the stem very much extended, and pendulous. *a* the proboscis; *b*¹ the base of the head; *b*² the stem; *b*³ the horn-like