APPENDIX.

splendid Venus' girdle of the Mediterranean (Cestum), the colours of which are as varied as those of the rainbow. The actual body of the animal, which lies in the centre of the long belt, is very small, and constructed exactly like that of the melon-jelly (Cydippe), which floats above to the left (16). On the latter are visible the eight characteristic fringed bands, or ciliated combs, of the ctenophora, and also two long tentacles which extend right across the page, and are fringed with still finer threads.

PLATES VIII. AND IX. (Between pages 170 and 171, Vol. II.)

History of the Development of Star-fishes (Echinoderma, or Estrella). The two plates exhibit their alternation of generation (vol. ii. p. 168), with an example from each of the four classes of Star-fishes. The sca-stars (Asterida) are represented by Uraster (A), the sea-lilies (Crinoida) by Comatula (B), the sca-urchins (Echinida) by Echinus (C), and finally, the sea-cucumbers (Holothuriæ) by Synapta (D). (Compare vol. ii. pp. 166 and 176). The successive stages of development are marked by the numbers 1-6.

Plate VIII. represents the individual development of the first and non-sexual generation of Star-fishes, that is, of the nurses (usually, but erroneously, called larvæ). These nurses possess the form-value of a simple, unsegmented worm-individual. Fig 1 represents the egg of the four Star-fishes; and it, in all essential points, agrees with that of man and of other animals. (Compare vol. i. p. 297, Fig. 5.) As in man, the protoplasm of the eggcell (the yolk) is surrounded by a thick, structureless membrane (zona pellucida), and contains a globular, cell-kernel (nucleus), as clear as glass, which again encloses a nucleolus. Out of the fertilised egg of the Star-fish (Fig. A 1) there develops in the first place, by the repeated sub-division of cells, a globular mass of homogeneous cells (Fig. 6, vol. i. p. 299), and this changes into a very simple nurse, which has almost the same shape as a wooden shoe (Fig. A 2 - D 2). The edge of the opening of the shoe is bordered by a fringe of cilia, the ciliary movements of