

as it is represented in figure 148, *f*, attached to a piece of floating wood.

374. There is, consequently, not only a change of organization in the course of the metamorphoses, but also a change of faculties and mode of life. The animal, at first free, becomes fixed; and its adhesion is effected by totally different organs at different periods of life, first by means of tentacles, which were temporary organs, and afterwards by means of a fleshy stem developed especially for that purpose.

375. The Radiata also furnish us with examples of various metamorphoses, especially among the star-fishes. A small species living on the coast of New England (*Echinaster sanguinolentus*) undergoes the following phases, (Fig. 149.)

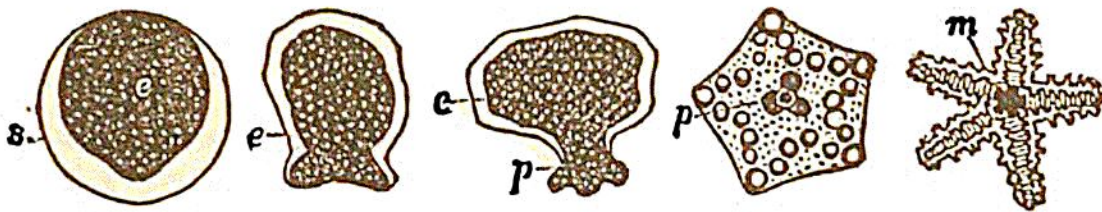


Fig. 149.

376. If the eggs are examined by the microscope, each one is found to contain a small, pear-shaped body, which is the embryo, (*e*,) surrounded by a transparent envelop. On escaping from the egg, the little animal has an oblong form, with a constriction at the base. This constriction becoming deeper and deeper forms a pedicle, (*p*,) which soon divides into three lobes. The disk also assumes a pentagonal form, with five double series of vesicles. The first rudiments of the rays are seen to form in the interior of the pentagon. At the same time, the peduncle contracts still more, being at last entirely absorbed into the cavity of the body, and the animal soon acquires its final form, (*m*.)