opposite or free end, containing the mouth (*Fig.* 11 *c*), becomes relatively the upper end of the body as regards the point of attachment; but homologically speaking it is the actinal pole, and corresponds to the proboscis of the medusoid form. By the time the embryo is fairly attached, the outer layer of transparent cells has separated from the interior mass, and thus defined itself as a distinct wall (*a*). The inner wall (*b*) is in a measure distinct, but, owing to the density of the pigment cells, its outlines are not very clearly defined. Occasionally there may be seen spaces (*d*) between the outer and inner walls, which, as in the present instance, are quite extensive, and seem to show that the two walls are very loosely connected with each other. The nascent tentacles (*e*) are quite prominent. The number of tentacles varies from two to three or four, but usually there are but two in the beginning. At first they are mere thickenings of the outer wall, and appear like small, warty excrescences (*e*) at a short distance behind the mouth (*c*). The cilia still show some signs of life by fitful starts, either all together or in groups at different points of the body. The mouth has not as yet any connection with the digestive cavity; but a few hours later a passage is formed, and one may look directly through it (*Figs.* 12 and 12[a] *c*) into the centre of the body. From the earliest moment of its existence as a true mouth, it exhibits all the characteristic movements of later stages: the lips gape (*Fig.* 12 *c*) till the digestive cavity may be looked into as if into a cup, or they open and close and stretch out as if trying to seize upon something. The specimen which we have represented in *Figs.* 12 and 12[a] appears indistinctly five-sided when seen from above (*Fig.* 12[a]), and the angles correspond to as many incipient tentacles. The cilia, although present, have ceased to vibrate, or to show any signs of vitality. The most remarkable feature of this phase is the commencement of the horny sheath of the stem, which first appears as a layer of transparent, amber-like substance (*Fig.* 12 f^1) beneath the posterior end of the embryo, and serves as a base for its attachment. The laminated structure of the incipient sheath indicates plainly that it is a succession of layers deposited by excretion from the posterior end of the body. The digestive cavity occupies a large portion of the anterior part of the body, but the rest of the embryo is filled by a dense, orange-yellow mass, not to be distinctly recognized as an interior wall; nor does the whole of this congregation of cells always become

of the body has a depression, which acts like a sucker, and enables the embryo to adhere to smooth bodies, or to hang pendent from the surface of water. Were it not that he describes a mouth at the opposite end of the body, we should be inclined to think that the depression he speaks of was the true digestive opening, especially as he says that this end of the body precedes the other parts when the animal is swimming. Now in our Aurelia the depression is also at the broader end of the body, and precedes the narrower end when swimming; but we have already seen that this broad end remains free, whilst it is the narrower end which becomes fixed.