

say positively; but it seems quite probable that the former is the case. The degree of contractility which the embryo possesses is shown by *Figs. 8* and *8^a*, which were taken from the same individual.

In an immediately subsequent phase a totally new form presents itself: by the flattening of the scyphostoma it assumes a shape (*Figs. 9* and *9^a*) which strongly reminds one of the blood discs of birds and reptiles; and were it not that the two sides of the oval planula are simply concave, the resemblance would be complete. The anterior end (*Fig. 9^a c*) is a little thicker than the posterior (*c¹*), and the middle is the thinnest and occupied by a clear oval mass. The motions of the planula are just as rapid and varied as in the last stage, but much more remarkable, on account of the alternate presentation of its sides and edges to the eye in rapid succession while it rotates upon its longer axis. The anterior end of the body soon becomes much thicker (*Fig. 10^a c*), and, when seen edgeways, presents an angular outline and flat area at the extreme end (*c*). At the posterior end (*c¹*), however, it does not change much in form. In an end view of the anterior end (*Fig. 10^b*), the outline is oval; the posterior end (*Fig. 10^c*) is also oval transversely but not so thick proportionally. In the middle of the flat area (*Fig. 10^a c*) there is a cup-shaped depression (*Figs. 10 c, 10^b c, and 10^d c*), which will at once be recognized as the mouth in its incipient state. Excepting the outer transparent layer, the whole body is very opaque. In a quiescent state the stiffened, bristle-like appearance of the cilia (*Fig. 10^d*) calls to mind a similar phenomenon observable among infusorial forms.¹ At this stage the embryo terminates its free wandering life, and it may be seen diligently seeking a place to lay its foundation; for such it truly has, as we shall presently show.

THE SCYPHOSTOMA² OF AURELIA AND CYANEA. We now proceed to describe the development of the scyphostoma of Cyanea and that of Aurelia together. The wandering life of the planula form having come to an end, we may observe it settling down upon its narrower end (*Figs. 10* and *10^a c¹*): it wavers, and sways to and fro as if it were trying to force its way downward into the substance upon which it has fastened itself, and then, as if dissatisfied with the promise of a good basis for its foundation, it suddenly loosens its hold and swims away to another locality, there to repeat the same kind of examination, until finally, after perhaps half a dozen attempts, as we have observed, it finds a suitable place to rest upon permanently. In the process of attaching itself, the posterior end (*Fig. 11 c¹*) becomes simply flattened, or moulded to the shape of the body to which it adheres.³ The

¹ Ehrenberg has actually mistaken the embryos of Aurelia for parasitic Infusoria. *Die Aculephen* edsot hern Meeres, Berlin, 1836, pp. 20 and 77.

² See Vol. III., page 80, for the meaning of the word Scyphostoma as used here.

³ SIEBOLD loc. cit. page 28, states that this end