

communities of free-moving gelatinous animals, the Siphonophoræ (*Fig. 3*), which others consider as genuine *Acalephs*, while some do not hesitate to unite all *Acalephs* and *Polyps* in one single division. On the other hand, we have lately seen a part of the *Acalephs*, the *Ctenophoræ* (*Figs. 4, 5, 6, and 7*), removed from that class, and referred to the type of *Mollusks*.

Such conflicting views could not be entertained by so many and such eminent naturalists, did not almost insuperable difficulties obstruct our attempts to trace the truth. I know only one way to overcome these obstacles, and to attain greater precision on this subject. It is to test the affinities of all these animals by the standard of what is known of their mode of development, in the manner done before with full success for other classes; taking at the same time into account the homologies of their parts, as far as they can be ascertained. Embryology has, indeed, become

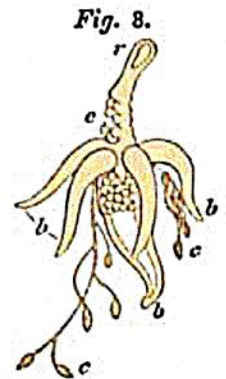


Fig. 8.
YOUNG PHYSOPHORA,
(Copied from Gegenbauer.)
b Buds of swimming bells.—bb So-called tentacles; lower b so called Polyp.—cc Feelers with lasso cells.—r Air sac.

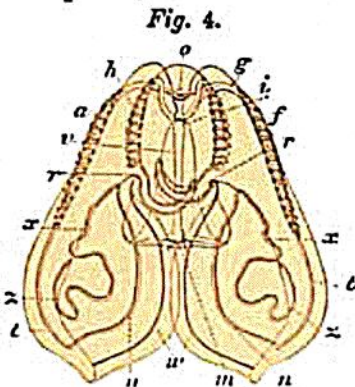


Fig. 4.
BOLINA ALATA, Ag.
(Seen from the broad side.)

a and f Long rows of locomotive fringes.—g and h Short rows of locomotive fringes.—o Central black speck (eye-speck?).—i to m Triangular digestive cavity.—i to o Funnel-like prolongation of the main cavity.—v Chymiferous tube of the tentacular apparatus.—m Tentacular apparatus on the side of the mouth.—rr Ear-like lobe, or auricles, in the prolongation of the short rows of locomotive fringes.—tt Prolongation of the vertical chymiferous tubes.—nn The same tubes turning upwards.—xx Bend of the same tubes.—zz Extremity of the same tubes meeting with those of the opposite side.—w Recurrent tube anastomosing with those of the auricles.

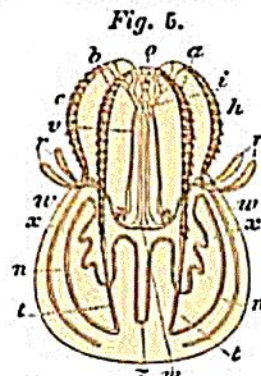


Fig. 5.
BOLINA ALATA, Ag.
(Seen from the narrow side.)

a b Long rows of locomotive fringes.—c h Short rows of locomotive fringes.—o Central black speck (eye speck?).—i Upper end of the digestive cavity.—i to o Funnel-like prolongation of the main cavity of the body.—m to i Digestive cavity.—rr Auricles.—m Mouth.—tt Prolongation of the vertical chymiferous tubes.—nn The same turning upwards.—xx Bend of the same tubes.—zz Anastomosis of the two longitudinal tubes tt.—w w Recurrent tube, anastomosing with those of the auricles.—A comparison of this figure with *Fig. 4* gives a distinct idea of the relative position of the digestive cavity m to i, and the chymiferous tubes of the tentacular apparatus v.

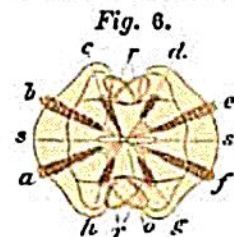


Fig. 6.
BOLINA ALATA, Ag.
(Seen from above.)
o Central black speck (eye speck?).—a b e f Long rows of locomotive fringes.—c d g h Short rows of locomotive fringes.—rr Auricles.—s s Circumscribed area of the upper end of the body.

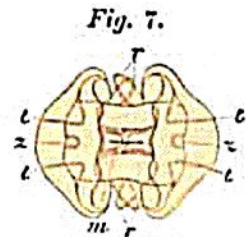


Fig. 7.
BOLINA ALATA, Ag.
(Seen from below.)
m Mouth.—rr Auricles.—ttt Prolongation of the vertical chymiferous tubes.—zz Anastomosis of these tubes.

the key-note to the knowledge of the closer affinities among animals. Granting, for instance, that anatomy alone could have settled the question of the true affinities of the *Barnacles* with *Crustaceans*, I hardly believe, that, but for our knowledge of their embryology, naturalists would ever have dared to consider them merely as a group of the natural division of *Entomostraca*, which they really are. But for our knowledge of the mode of development of *toads* and *frogs*, their close