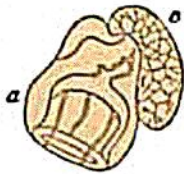


It has already been stated, that the communities of *Diphyidæ*¹ begin with a *Medusa* (*Fig. 51*), judging from the investigations of *Gegenbauer* detailed above

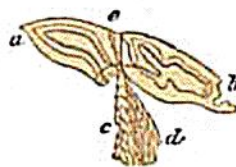
Fig. 51.



Embryo of
DIPHYES SIEBOLDII, Köll.
(Copied from *Gegenbauer*.)

c Remnant of the embryonal body. — *a*
Swimming-bell developed from the embryonal body.

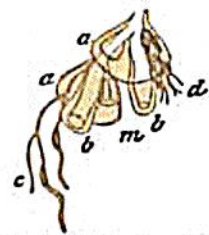
Fig. 52.



GALEOLARIA FILIFORMIS, Leuck.
Diphyes quadrivalvis, Gegenb.
(Copied from *Gegenbauer*.)

a b Anterior and posterior swimming-bells. — *c* String of twin individuals. — *d* Feelers with lasso cells. — *e* Cecal termination or base of the connecting tube or axis of the community.

Fig. 53.



Two twin individuals of the pendent string of the community of
DIPHYES SIEBOLDII, Köll.

a a The so-called scales. — *bb* The so-called Polyps. — *m* The so-called sexual capsule. — *c* External feeler, with lasso cells. — *d* Feeler contracted.

(pp. 53 and 54), and that from the first twin community, formed of two sterile *Medusæ* (*Fig. 52 a b*), arise a string of similar twin communities (*Fig. 52 c*), consisting of a medusoid *Hydra* (*Fig. 53 a a*) and a fertile sexual *Medusa* (*Fig. 53 m*), the so-called *Gonocalyx*, dropping off together and living for a time as independent beings, several of which have been described as distinct genera.

If the views I have here presented of the nature of the *Siphonophoræ* are correct, there is no need of a special nomenclature to describe the different individuals of their communities; and we shall hereafter deal with them as with different kinds of *Hydræ* and of *Medusæ*, describing successively their polymorphous individuals as we would describe different genera and species of *Hydroids* and of free *Acalephs* belonging to other families of the class, and introduce only one new element in these descriptions, on account of the different modes of association of the many individuals united together in one and the same community, as it becomes necessary here to allude to their various combinations.

¹ Since the preceding pages were printed I have received two interesting papers upon *Diphyidæ* and *Physophoridæ* from their distinguished author, Dr. C. *Gegenbauer*: Ueber *Abyla trigona* und deren

Eudoxiernbrut, Jena, 4to. fig.; and *Neue Beiträge zur nähern Kenntniss der Siphonophoren*; separately printed from the *Act. Nov. Acad. Natur. Curios.* for the current year.