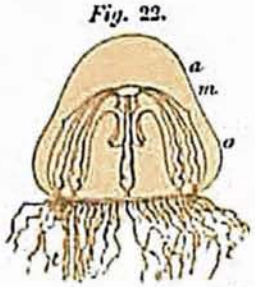
Thaumantias (*Fig.* 17) or Melicertum (*Figs.* 22, and 23), which are respectively the free Medusæ of a Coryne (*Fig.* 19), a Tubularian (*Fig.* 11), a Campanularian (*Figs.* 10 and 16), and a Sertularian (*Fig.* 18). And if we compare the Coryne with the Tubularia, the only essential difference we notice is, that while in Tubularia the feelers are arranged in a whorl around the base of the proboscis, in Coryna they are scattered all over the proboscis.

Fig. 22.

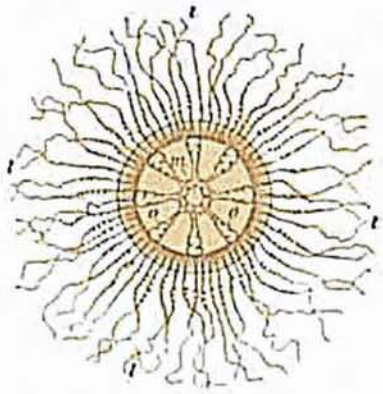


MEDUSA CAMPANULA, Fabr. (A species of Melicertum *Oken*, seen in profile.)

The free Medusa of a very common Sertularian Hydroid of the North American coast.

t Tentacles. — *o* Ovaries, along the vertical chymiferous tubes. — *m* Mouth. — *a* Disc.

Fig. 23.



MEDUSA CAMPANULA, Fabr. (A species of Melicertum *Oken*, seen from above.)

The free Medusa of a very common Sertularian Hydroid of the Atlantic coast of North America.

m Mouth. — *o o* Ovaries along the vertical chymiferous tubes. — *t t t* Tentacles.

There is only one more group of animals that has been associated with the Medusæ. I mean the *Acalèphes hydrostatiques* of Cuvier, called *Siphonophoræ* by Eschscholtz and the more recent writers. From the time they became first known through the descriptions of Forskål and the splendid illustrations of LeSueur, they have always been considered as allied to the Medusæ, until recently Kölliker has associated them with the Polyps under the name of swimming Polyps, *Polypi Nectalei*. An opinion expressed without hesitation by so eminent an investigator as Kölliker requires the most careful examination. To arrive at a satisfactory result on this critical point, it is necessary, in the first place, to consider the fact, that the so called swimming Polyps, the Siphonophoræ of most authors, are compound animals, — that is to say, communities of individuals organically connected in a manner similar to the community that exists between the numerous individuals of a Coral stock or of a Hydroid stock. But this is not all. The individuals so connected in these communities have no more the same appearance than those of the communities formed by certain Hydroids; and that we may be the better prepared to appreciate the extraordinary extent to which different individuals of the same community may differ in a stock of so called swimming Polyps, it may be well to consider beforehand the extent of the differences we observe between the individuals of similar stocks among genuine Polyps, as well as among Hydroids.

In a Polyp community the rule is, that all the individuals of the same stock resemble one another in every respect, differing slightly in size, and, it may be, as in the confluent species, in the number of mouths, circumscribed by a continuous series of tentacles, as for instance in Maeandrina, Diploria, Gyrophyllia, Manicina, etc. In some of the Madrepores, however, and especially in those which produce numerous distinct branches, there is a greater difference, each branch