large forms, of which the species *P. naresi* is the largest. These forms have been taken in abundance only at the greatest depths, as is the case with the giant race of *Aulacantha scolymantha*. Among Norwegian Sea forms we may mention *Protocystis bicornis* and *P. harstoni*, *Challengeria xiphodon*, and *Porospathis holostoma*, the three latter being found in the Atlantic as well. *P. holostoma* has been taken at great depths in the Norwegian Sea and in the Sargasso Sea.

The Tuscaroridæ are genuine deep-sea forms, having a bottle-shaped shell provided with large strong spikes arranged in rings around the main axis (see Fig. 395). In hauls with closing nets they have never been taken in less than 400 metres of water; some species, for instance *Tuscaretta tubulosa*, occur in all oceans.

Remarkable deep-sea forms, as well as certain small surface forms, belong to the Medusettidæ. *Medusetta arcifera* has been taken in the Norwegian fjords.

On the basis of his study of the Radiolarians of the "Valdivia" Expedition, Haecker distinguishes the following bathymetrical regions:—

(1) An upper Acanthometra-layer.

(2) A Challengeria-layer (50 to 400 metres).

(3) A Pandora-layer (from *Aulographis pandora*, 400 to 1000 metres), in which the Tuscaroridæ are also found.

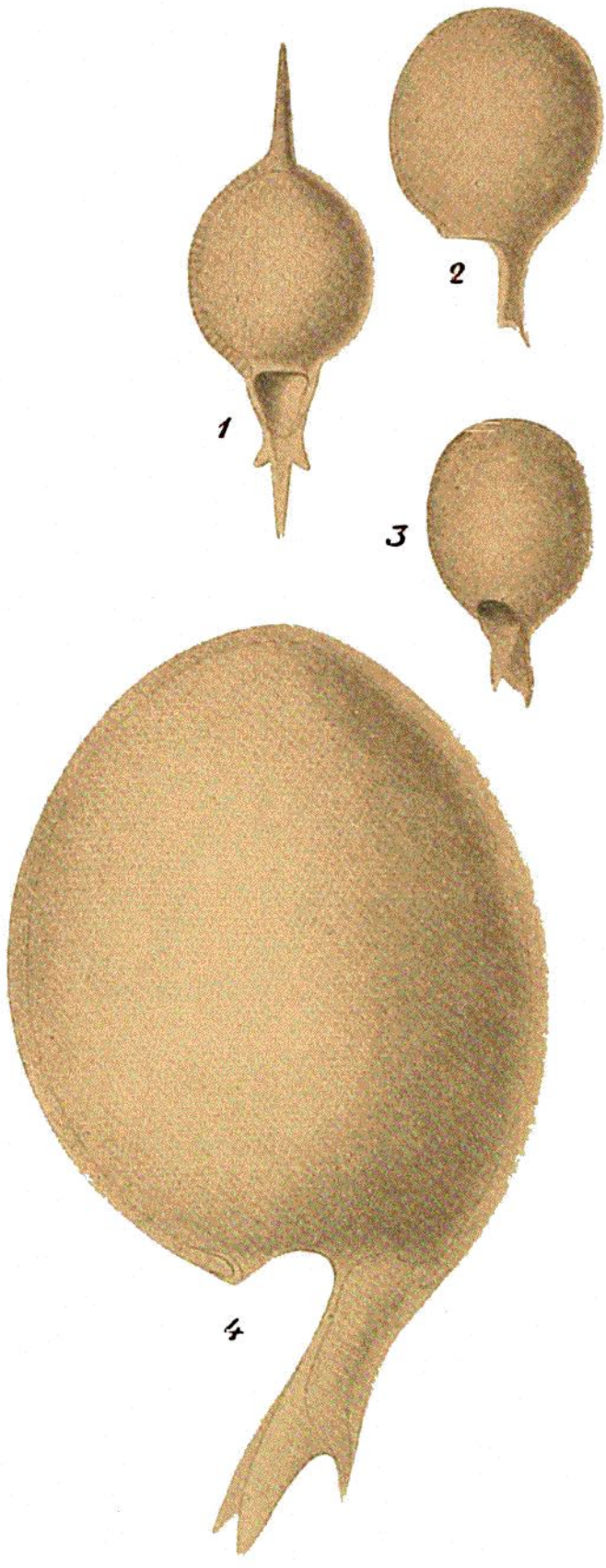

FIG. 394.

Challengeridæ ($\frac{21}{1}$). 1, *Protocystis swirei*, John Murray; 2 and 3, *Protocystis tridens*, Haeckel; 4, *Protocystis thomsoni*, John Murray. (From Haecker.)