

more expanded, and the two bent legs which issue from it do not lie in quite the same plane, with the result that in sinking the cell describes very long sweeps. Besides these we get other genera, where the suspension-organs are not formed by the

Ornithocercus.

cell itself, but by the membrane-curtains. In *Ornithocercus splendidus* the ring-borders are transformed into an unmistakable parachute, stiffened by a network of ribs (see Fig. 234, *a*), and in some species, such as *O. steinii* and *O. quadratus*, the membrane-curtains are ventrally or posteriorly most highly developed (see Fig. 234, *b*). The

majority of these more differentiated forms are without chromatophores, but some of them by way of compensation are in almost constant symbiosis with small brown naked cells that are probably immobile stages of brown flagellates. In *Ornithocercus magnificus*, for instance, we find these naked cells in the space between the ring-borders, where they are well protected against harm (see Fig. 235); and in a series of species of the remarkable tropical genus *Histioneis* this

Histioneis.

home of theirs is expanded posteriorly into a cavity which may be of considerable dimensions as compared with the cell. In

Citharistes.

Citharistes the cavity takes up the whole of what should be the central portion of the cell, and the cell-membranes are merely the outer skin like the shell of a guitar (see Fig. 236).

Pyrocystis.

A remarkable subdivision of the peridineæ is the genus *Pyrocystis*, which Sir John Murray discovered during the "Challenger" Expedition. *Pyrocystis noctiluca* (see Fig. 237) has large globular cells with a thin layer of protoplasm along the cell-wall, a denser mass round the nucleus, and brown pigment granules. Murray stated that the genus was abundant in all tropical and subtropical waters, where the temperature exceeds 68° F., and where the salinity at the surface is not lowered by the presence of coast or river water. The cells have no organs of motion, but belong to the most brilliantly phos-

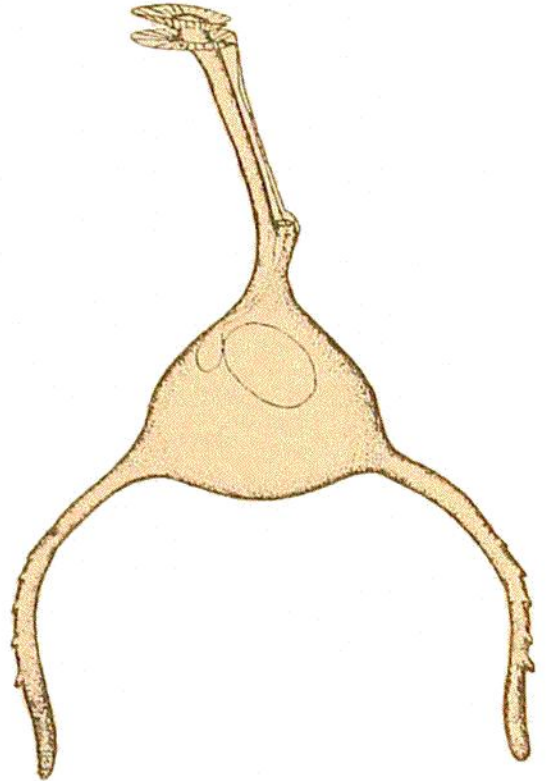


FIG. 233.—*TRIPOSOLENIA BICORNIS* ($\frac{2}{10}$).
(Kofoid.)