

beautiful little transparent *Cranchia*—a cuttle-fish not more than a centimetre in length; a *Phillirrhoe*, scattered over with golden spots; and an oceanic Planarian.

As we passed southward the character of the phosphorescence changed somewhat. *Pyrosoma* and the larger phosphorescent creatures became less abundant, and the light given out by the water, although, on the whole, even more vivid than before, was more diffused, so that water shaken in a vase gave out the uniform soft light of a ground-glass globe illuminated from within by a white flame. Even when examined in small quantity in a tumbler the water was slightly turbid, and when the light was properly adjusted, it was seen to contain a multitude of minute transparent bodies, which give out in the dark a clear white light, becoming very vivid, almost a spark, when they are shaken or irritated.

The largest of these are spherical, nearly a millimetre in diameter. They consist of a delicate external pellicle, so thin that it can scarcely be defined under the microscope, but apparently siliceous, for, when the little globe is pressed with extreme delicacy between the finger and thumb, the wall of the cell is felt to break like an infinitely thin wall of glass. When the sphere is shaken from the towing-net, it usually contains only a clear transparent liquid, with a small irregularly outlined mass of yellowish-brown sarcode sticking apparently against the inside of the cell-wall. If it be left at rest for a time in seawater, the sarcode begins to send out prolongations which gradually spread in a net-work of anastomosing streams over the inside of the wall, and in these streams the peculiar and extremely characteristic flowing movement of living protoplasm may be observed, each stream bearing along with it oil-globules and minute granules, as in the well-known "cyclosis" within the cells of the moniliform hairs in the flower of *Tradescantia*. Under a high power the protoplasm is seen to consist of a clear viscid liquid, moving along with a defined edge separating it from the