

preventing, however, the food from escaping. After the nutritive fluid has made its way into the central cavity, it is circulated into the radiating tubes, and finally reaches the lower circular canal, moving to and fro in these canals, sometimes advancing from the centre towards the periphery, at other times rising from the periphery towards the centre, and flowing alternately one way or the other in the circular tube. There can be no doubt as to the irregularity of these movements, as the granules suspended in the more liquid food may enable any one, even with a low power, to trace the course of the nutritive fluid.

The tentacles, also four in number, arise from the lower margin of the disk, just at the point where the vertical chymiferous tubes unite with the circular canal, and at these points there is a sort of bulb, consisting of the swelling of the base of the tentacle in its connection with the chymiferous tubes, and also of a peculiar accumulation of cells, forming a rudimentary visual apparatus in the form of black eye-specks at the base of each tentacle. These tentacles are hollow, and the liquid which circulates in the circular tube penetrates into their cavity, up and down. They taper gradually, and are nearly cylindrical when extended, but rather thick when contracted. There is not the slightest indication of an aperture or puncture at their end, through which fluid might be absorbed, or refuse matter from the chymiferous system rejected, nor is there any such opening in any part of the circular tube, or of the other tubes through which the liquids are circulated. The external surface of the tentacles appears rough, granular, or rather tubercular; and, when elongated, these tubercles are sufficiently distinct to appear like rows of beads hanging loosely around a thread. But in their contracted state they come so close together, that the whole surface of the tentacle appears tubercular. Upon close examination, these tubercles are found to consist of heaps of minute epithelial netting cells, arranged in the form of rosettes or mulberries, each of which contains within itself a thread coiled in a spiral, which may be thrown out like the threads of all netting cells, and is provided, at its base, or at the upper portion of the bulb formed by the cell, with a double hook. See Pl. XIX. *Figs.* 6 and 6^a, and pages 208 and 209.

The sensitive bulb, or eye, as I may well call it, is placed, as already mentioned, at the junction of the marginal tentacles and the circular and vertical tubes, which pass into each other on their inner surface. It forms a marked projection, and is of an irregular triangular form, with rounded edges (Pl. XIX. *Fig.* 17). Seen from below, it is divided into two halves bulging sideways, between which the marginal tentacles arise. Seen in profile, the dark eye-speck appears still more prominent, in the shape of a hemispherical body projecting above the base of the tentacle. Seen from above and outside, it is more pear-shaped, the vertical tube above each eye-speck appearing like a continuation of its upper end. The circular