

diameter, and perfectly clear and homogeneous throughout, even to the absence of a mesoblast. What may be, perhaps, called the inner wall proper (*Figs. 8, d, and 9, d d'*), is a double layer of very large, irregularly polygonal cells, each one of which is nearly filled by a dense mass of dark granular matter (*Fig. 9, d d'*). Their distal ends, in the exterior layer, are more or less flattened, and conform to the outlines of the cells of the outer wall (*b*); the proximal ends of those of the inner layer (*d*) conform to the outlines of the large cells (*g*), which fill the centre of the stem. These great cells are very different in appearance and contents from those of the double layer which we have just described; some of them, especially those nearest the centre of the stem, are one one hundredth of an inch in diameter; they are perfectly hyaline, and, adding to this their sharp polygonal outlines, they have a marked crystalline appearance. Each cell has a single, discoid, homogeneous mesoblast (*g¹ g³*), which lies close against the wall.¹ The outlines of these cells are gently curved, and form a continuous smooth surface, from one to the other, where they border upon the longitudinal canals. The horny sheath (*Figs. 8 and 9, a*) possesses very fine concentric laminae.

SECTION V.

THAMNOCNIDIA SPECTABILIS AG.

Proles hydroidea. Adull.—The description already given of the habitat, the mode of life, the general form, the separate sexes, the head with its proboscis, the tentacles and the bunches of medusoids, the stems and their mode of branching, the horny sheath, the walls of the head and stem of *Parypha crocea*, apply equally to this Hydroid, with the following exceptions. The horny sheath (*Pl. XXII. Fig. 16, b'*) is quite uniform and smooth as far as it covers the stem above its base, and is a very little narrower below than above; but the entangled mass of the base is perhaps more dense than in *Parypha*. The medusoids have been observed to be present as early in summer as those of *Parypha*, but they have been seen much later in the autumn. This difference, however, may be only apparent; perhaps because the two genera were not always collected at the same time; at least we have no notes indicating that they were. As the various shapes which the proboscis and its tentacles assume in *Parypha* were not described, but only stated to be identical in that genus and in *Thamnocnidia*, we will now give

¹ The mesoblasts which are represented in this figure all belong to the cells nearest the eye.