intimately united are the parieties of neighboring walls, even to the very extreme of the angle of the cell. Excepting a few coarse, dark granules, which lie at the end next the perpendicular plane (*Figs.* 2, e^1, and 3, e^1) of the axis, these cells are remarkably transparent, and very brilliant. The latter feature is probably owing to the peculiar refracting properties of the homogeneous contents.

The cells of the outer wall of the stem resemble, in a general way, those of the tentacles, but their relations to each other are quite different from these last. In the first place, the stem, being perfectly round, and this wall of equal thickness throughout, they are more nearly alike in shape and proportions. In a surface view, where only the outer ends of the cells (Pl. XXIII^a. *Fig.* 4, i^3) are seen, they appear irregularly polygonal, and thick-walled. In profile (*b c*) they have a broad cylindrical outline, with about equal transverse and longitudinal diameters, when the stem is in a medium state of extension, but when it is stretched to the fullest degree, these cells (*Fig.* 5, *b c*) have a transverse diameter at least twice as great as the longitudinal one. The outer ends are always more or less rounded, but the inner ends, where they abut on the inner wall (*d e*), are, on the contrary, flattened transversely to their longitudinal diameter, so as to form a perfectly smooth, even surface, over the whole extent of the wall which they form. The contents of each cell consists of a perfectly homogeneous, transparent substance, and one or two lasso-cells which are fixed at the outer rounded end. The peculiar relations of these lasso-cells to the wall of the cell, we have already described when speaking of the lasso-cells of the tentacles (p. 261). It is a remarkable fact, that, whilst these cells, which we have just described, are so conspicuous, the cells of the outer wall of some of the other Hydroids, such as Coryne, Halocharis, Clava, Hydractinia, and Rhizogeton, are only to be seen with the best magnifying powers which we can command.

The cells (*Figs.* 4, *g* g^1 g^2, and 5, *g* g^1 g^2) of the inner wall are as readily seen as those of the outer wall, and, in fact, the latter have such a strong resemblance to the former that one might easily be mistaken for the other, when both are seen endwise (i^3, g^2). When the stem is very much extended, there is a marked difference, at once recognizable; the cells of the inner wall (*Fig.* 5, *g* g^1 g^2), in such cases, are extremely elongated, in the direction of the axis of the stem. In a profile view (*Figs.* 4, *d e*, and 5, *d e*) we find the outer ends of the cells are flattened transversely, so as to form a smooth floor, which fits closely to the inner surface of the outer wall (*b c*). The inner ends (*e*) are rounded, with a tendency to sharpness when the stem is moderately extended (*Fig.* 4, *e*), but terminate with a long curve (*Fig.* 5, *e*) when the stem is very much stretched out. In the former case, the diameter of a cell, in a transverse direction, is hardly half of that from the outer to the inner end, but, in the latter case, the depth of a cell