parallelly in the flapper, and that their outer free ends constitute the marginal fringe of this organ, and furthermore that each cell is as it were a single tooth in the comb-like flapper, reaching in one stretch from the base to the margin. Thus the locomotive flappers would be formed by the simple projection of these cellulo-motory vesicles beyond the surface of the body,[1] and by their arrangement in a single row, combined with lateral coalescence. As these cells are simple prolongations from the midst of other similar cells, we should take it for granted that they have similar motive powers; for no action of special muscles — supposing that they were present, which is not true — could be so transmitted from the base along the flapper as to give it that peculiar curve which it frequently assumes when in a stationary condition: but any one may understand how the cells themselves can assume such a curve, and that each combined row of cells moves by the inherent power of its components, for, as we have frequently observed, when the flappers are minutely split up from edge to base, each cell vibrates isolatedly, and either in consonance with the others or at random.

It has oftentimes been noticed by observers, that whilst Pleurobrachia is in a dying state and even falling to pieces, and the epithelial cells peel off from the body, and, as we have observed, from the flappers too, in the form of a filmy mucus, the flappers themselves remain to the last moment flapping convulsively, wherever there is a bit of the body to which they may adhere, thus showing their intimate connection with the deeper seated cells. The ganglion-like bodies described in my former paper on Beroid Medusæ are nothing but the points of convergence of several such cells: they are very irregular in shape, and not always to be seen.

The remarkable iridescence of the flappers, we think, can be easily explained by reference to what we now know of their intricate structure. Each cell being excessively flattened, the walls are approximated like superposed laminæ, and these, with the surfaces of the epithelial cells, form all that is required to produce the same kind of action upon light as a pile of thin plates of mica or glass.

The tentacular sockets (*Fig.* 15 j j^1) are embraced by a wall whose cellular constituents closely resemble those of the interambulacral system; and, in fact, as will be shown hereafter in detail, these sockets are nothing more nor less than deep depressions in the latter system: the cells trend in the same general direction, that is, their longer axes trend transversely to the length of the sockets, and, for nearly one half of their distal extent, from the base of the tentacles (g) to the aperture (j^1), completely encircle them, like a constrictor muscle. At the basal half of the sockets, these cells form only a semicircle (*Fig.* 15 j j^2, *Fig.* 21 n^6) on

[1] This being true, the locomotive fringes are in no way comparable to vibratile cilia, as I had supposed before I knew fully their structure, and as Will also admitted.