

to appear to be specially fitted for the movement of any particular organ. Yet the cellular system is not a confused mass, as perhaps might be inferred from the foregoing remarks, but these gigantic vesicles, reminding one of the fusiform pulsacs of the orange both by their shape and disposition, have a most beautiful and extraordinary arrangement, which is thus far only known among Ctenophoræ.

In order that there may be no misapprehension in regard to the nature of this extensive motory system, it is advisable to render its cellular character as distinct as possible in the mind of the reader, and therefore, before proceeding further, we will describe the cells in detail. We have already remarked on their extreme transparency: this, combined with their great length and the prominence of their walls, in profile, conspires to obscure their true character, and suggests the idea, even to the observer well acquainted with them, that they are a network of widely separated fibres; and as such they have been described in a previous memoir,¹ though their vesicular character was already observed to some extent. They are in reality elongate, irregularly spindle-shaped vesicles (*Fig. 24*), either with blunt ends (*a*) or with all degrees of acuteness to quite slender, pointed terminations (*c*). When seen from either the actinal or the abactinal pole of the body, they generally display a broader outline than from any other point; and, as the eye passes along the sides towards the middle region of the body, they present successively narrower and narrower boundaries, until, at a right angle with the first point of view, they show a minimum of breadth. Viewed transversely, they are irregularly polygonal, and on that account each cell appears to have three, four, or five narrow ribs, trending parallelwise to its longer axis, and corresponding to its angles. When in a state of contraction, the walls are wrinkled transversely to the longer axis (*Fig. 24 b c*); but, owing to their transparency, the angles alone are readily seen, and they appear like thin, tortuous fibres, or oftentimes, strange to say, as if they were spiral springs, adapted to keep the body in a state of tension. This false appearance is not easily dispelled if it impresses the mind at the first view of these cells, especially as it is very difficult to trace the true relations of their sides and angles, without having some sort of hint as to their true nature. The total absence of the usual cell constituents—mesoblast and more or less granular contents—contributes also to keep up the illusion; for every thing within is as clear and homogeneous to the eye as blank space itself. Indeed, any one, after remarking the glass-like transparency of these animals, would be apt to doubt whether any structure could be detected in them. Such is the almost ethereal nature of the motive power which governs the actions of Pleurobrachia.

¹ Contributions to the Natural History of the
Acalephæ of North America, by L. Agassiz, Mem.

American Academy of Arts and Sciences, Boston,
Mass., vol. 4, part 2, 1850, p. 330.