The adaptation of means to an end is nowhere in the animal kingdom more beautifully and plainly displayed than in the mode of disposition of the simple material which constitutes, at the same time, the mass and the moving power of this animal: a specialization by arrangement, without a segregation, as a distinct system apart from the other organs. If the greater part of the body of certain Mollusca is subservient to muscular action, how much more extensively does this obtain in the Ctenophoræ.

Viewing the body of Pleurobrachia from the actinal pole (*Fig.* 21 *a*), the whole mass appears, at first sight, to be composed of an aggregation of cells (m m^2), which radiate in every direction from the centre to the periphery, as if an exemplification of the radiate type to which this animal belongs. It is true, these cells are arranged as we have here described; they do not, however, occupy the whole of the space through which they project, but are intimately interwoven with the cells of another system (p p^2), diverging from the tentacular sockets (j) to the periphery. The radiating system, however, is the most extensive, and pervades almost every region of the body: in fact, the only portions which it does not occupy are a small space lying in a direct course between the tentacular sockets and the periphery, and also a thin layer of the periphery, which is exclusively devoted to the system of cells (n n^1) which traverse the spaces between and under the locomotive flappers. In all these systems the longer axes of the component cells trend in the lines of radiation of each system to which they belong: in fact, it is their longitudinal outline which gives the characteristic fibre-like appearance to the mass of the body. This will suffice to give an idea of the general disposition of these cells, and of their relation to each other; but each system needs a much fuller treatment by itself, in order to elucidate its share of influence upon the movements of the body.

For the sake of convenience, we will describe the peripheric system first. It will be seen by the figures drawn from the actinal and abactinal poles (*Figs.* 20 and 21), that the outline of the body is waved or slightly lobed, the lobes corresponding to the spaces between the rows of locomotive flappers (l^1 l^2), so that there may be said to be eight broad ribs alternating with as many narrow and shallow furrows, extending like meridians from the actinal to the abactinal areas. The proportionate breadth of the ribs may be ascertained by inspecting the figures, and they are described more fully in another place. Now, the peripheric cellulo-motory system is divided into two sets of layers, the one corresponding to the broad ribs and the other to the shallow furrows. The first system (n n^1) is by far the most extensive, both in breadth and depth. The surface of each broad rib is at the same time the outer convex surface (*Fig.* 21 n) of a broad band of transversely trending cells; and the inner face (n^1) of each band has the same degree of cur-