

parallel, then diverging or variously curving, follow the motions of the main sphere, being carried on with it in all its movements, which are no doubt influenced by them to a considerable extent. Upon considering this wonderful being, one is at a loss which most to admire, the elegance and complication of that structure, or the delicacy of the colors and hues, which, with the freshness of the morning dew upon the rose, shine from its whole surface. Like a planet round its sun, or, more exactly, like the comet with its magic tail, our little animal moves in its element as those larger bodies revolve in space, but unlike them and to our admiration, it moves freely in all directions; and nothing can be more attractive than to watch such a little living comet as it darts with its tail in undetermined ways and revolves upon itself, unfolding and bending its appendages with equal ease and elegance, at times allowing them to float for their whole length, at times shortening them in quick contractions and causing them to disappear suddenly, then dropping them as it were from its surface so that they seem to fall entirely away, till, lengthened to the utmost, they again follow in the direction of the body to which they are attached, and with which the connection that regulates their movements seems as mysterious as the changes are extraordinary and unexpected. For hours and hours I have sat before them and watched their movements, and have never been tired of admiring their graceful undulations. And though I have found contractile fibres in these thin threads, showing that these movements are of a muscular nature, it is still a unique fact in the organization of animal bodies, that parts may be elongated and contracted to such extraordinary and extensive limits by means of muscular action. And what is so surprising, is not so much the sudden and powerful contraction which brings within the compact limits of a pin's head the whole mass of these tentacles that a moment before were floating so elegantly through such a great extent in the water, as the relaxation, which takes place in an absolutely passive manner; for when watching them we are suddenly struck with astonishment on finding that the tentacle which we expected to see drop to the bottom of the jar is still in organic connection with the body from which it hangs. Plate I. of my paper in the Memoirs of the American Academy represents some few of the attitudes of our Pleurobrachia in its various movements, one of which is reproduced in this work (Pl. II^a. *Fig.* 25); but I cannot find words to describe all the beautiful changes which the parts thus in motion assume in different attitudes. At one moment the threads, when contracted, seem nodose; next, when more elongated, these knots are stretched into the appearance of a spiral; next, the spiral, elongating, assumes the appearance of a straight or waving line. But it is especially in the successive appearances of the lateral fringes arising from the main thread that the most extraordinary diversity is displayed. Not only are they stretched under all possible angles from the main stem, at times