

fish for giving an effective impulse to the water, are the tentacula. These they employ as oars, striking with them from behind forwards, so that their effect is to propel the hinder part of the body, which is thus made to advance foremost, the head following in the rear. They also use these organs as feet for moving along the bottom of the sea. In their progress, under these circumstances, the head is always turned downwards, and the body upwards, so that the animal may be considered as literally walking upon its head. The necessity of this position for the feet, arises probably from the close investment of the mantle over the body; for although the mantle leaves an aperture in the neck for the entrance of water to the respiratory organs, yet, in other respects, it forms a sac, closed in every part, except where the head, neck, and accompanying tentacula protrude.

In the Calamary, as well as in the common *Sepia*, two of the arms are much longer than the rest, and terminate in a thick cylindrical portion covered with numerous suckers, which may not unaptly be compared to a hand. These processes are employed by cuttle-fish as anchors for the purpose of fixing themselves firmly to rocks, during violent agitations of the sea; and accordingly we find that it is only the extremities of these long tentacula that are provided with suckers, while the short ones have them along their whole length.

The other genera of cephalopodous Mollusca are, like the *Sepiæ*, provided with tentacula attached to the head. They comprehend animals differing exceedingly in their size: some being very large, but a great number very minute, and even microscopic.* The shells of these animals are often found to contain partitions dividing them into a number of chambers; hence they have been termed *camerated*, or *multilocular*, or *polythalamous* shells. The *Spirula* (Fig. 124) is a shell of this description, of which the cellular structure and numerous partitions are rendered visible by making a

* A particular account has been given of the shells of these microscopic cephalopoda by M. D'Orbigny, in the *Annales des Sciences Naturelles*; vii. 96.