

called chambered shells, from their being divided by partitions into numerous narrow cells or chambers. A tube, called a siphunculus, passess through the series of chambers. In all probability, this tube enabled the animal to rise from great depths of the ocean to the surface, by exhausting the water from the chambers, and filling them with air.

Till within the last few years, these chambered shells have been considered as the habitation of marine animals, like the bivalve and univalve shells; but a little reflection may convince us, that the chambers were much too small to contain the animal, nor could the animal possibly pass from one chamber to another. There is, however, one living species, in which the outward cell or chamber is so much larger than the rest, that there is sufficient space to contain a great part of the animal. This is the nautilus pompilius, an inhabitant of the Indian Ocean. (See Plate VIII., fig. 3., which represents the animal collapsed in the last, or open chamber of the shell.)

The animals belonging to the different chambered shells were molluscous. (See Chap. II.) They are called by Cuvier Cephalopodes, because the organs of motion are placed round the head, and they walk with their heads downwards. The living species of cephalopodes are for the most part without any external shell; but some have an internal hard substance without chambers, of which the cuttle-fish bone affords a familiar example. This is taken out of the body or sac of the animal—the *sepia officinalis*, which is common on our coasts.

The general character of the cephalopodes, as given by Cuvier in his *Règne Animal*, tom. iii., is, “that the mantle or cloak is united under the body of the animal, and forms a muscular sac, which envelopes all the viscera. The head projects from the opening of the sac; it is round, and has two large eyes, and is surrounded (*couronné*) by fleshy arms or feet, which are conical, and vary in length in different species. These arms bend in every direction, and are exceedingly powerful. On the surface of these arms are numerous suckers, by which the animal fixes itself strongly to the bodies that it seizes and enfolds. These arms serve the animal both to seize its prey, to walk, or to swim. It walks in every direction, having the head below, and the body above. At the base of the arms is the mouth, which is provided with two strong jaws resembling the beak of a parrot, and also with a fleshy gizzard like that of a bird.

“Most of these animals, when pursued, excrete a particular black liquor, which darkens the water, and conceals them from their enemies. Their is a fleshy funnel placed near the neck, which serves the animal for its excretions, and also to eject the water that it absorbs for the purpose of respiration. They are of two sexes, and are voracious and cruel: as they have great agility in seizing their prey, they destroy multitudes of fish and crustaceous animals.” The fleshy funnel, or excreting organ, is not seen in fig. 1., being placed on the under side; but in fig. 3., the projecting organ below the tentacula is the funnel. The *sepia* has the power of contracting its arms; and in some species the arms are much shorter than represented in the plate, fig. 1., but these have, besides, two extremely long arms or feelers. If the accounts of voyagers could be relied upon, there are *sepia* in the Indian Ocean with arms nine fathoms in length, and so