

with them at the bottom of the water, having its mouth and head downwards and its body upwards, thus presenting a most uncouth and grotesque appearance, as it crawls awkwardly upon its circle of feet. The mouth of the animal, which is in the middle of the central mass from which the arms radiate, consists of a pair of horny or calcareous mandibles, which bear a strong resemblance to the bill of a parrot, acting vertically one upon the other. With this powerful beak, as with a forceps, it can tear open many species of crustaceans and shell-fish, on which it is accustomed to feed, and rend its prey, of any description, when once dragged within its reach.

Professor Owen has divided the Cephalopoda into two orders; the one including the Pearly Nautilus, called *Tetrabranchiata*, or four-gilled; the other including the rest of the existing species, named *Dibranchiata*, or two-gilled. To the latter order belong the cuttle-fishes (*Sepiadæ*)—a tribe which presents some of the most interesting and remarkable of animal forms.

One tribe of these cuttle-fishes have ten arms, two of them much longer than the rest, very slender and covered at their broadened extremities only with sucking disks. The other eight arms are shorter and thicker and covered on the whole of their under side with a double row of suckers. The whole ten arms taper to a fine point. The name "tentacles" is sometimes given to the arms, as not only do they serve for grasping objects but also subserve the sense of touch.

We are accustomed to regard the human hand as the very perfection of a prehensile organ, but some doubts on this point may be raised by a careful study of the arms of the cuttle-fish. Each of these arms is furnished with between one and two hundred suckers, every one of which is capable of adhering to any surface so tenaciously that it is easier to tear away the substance of the limb, while the creature maintains its hold, than to release it from its attachment. It is not difficult to understand how these suckers act. The principle is the same as that of a cupping-glass. The rim or border of each sucking-disk consists of a cartilaginous or gristly substance; and within this ring is a shallow cup-like space, across which a muscular membrane is stretched, having a circular aperture in the centre. Within this aperture is a muscular plug or piston, cone-shaped, and capable of being protruded or retracted rapidly, at the will of the animal. In the