

The main bulk of the body consists of a gelatinous mass, forming the bell-shaped, central part of the animal. This is thickest above, in the central part of the swollen disk (wood-cut 29, *a b*); towards the sides it gradually tapers, and becomes very thin near the lower margin, about the origin of the tentacles, where it is suddenly turned inward, at right angles with its previous direction, and forms a transverse partition (wood-cut 31, *c*<sup>1</sup>, and Pl. XVIII. *Fig. 17, a*), the so-called veil, between the main cavity of the body and the surrounding medium, a large hole, however, being left in the centre, through which the proboscis plays at ease.

At first, when watching the animal in its movements, it would seem as if the gelatinous mass itself were the cause of locomotion; but, upon close examination, it is easily found that it is merely an elastic support for the active apparatus of motion, which consists of layers and bundles of contractile cells, diversely arranged. There is an external system of these bundles, immediately under the epidermis, through the agency of which the contracted body is restored to its expanded form. Upon the inner surface there is another system, which contracts the sphere, acting in antagonism with the former. These two systems consist of bundles extending vertically from the upper portion of the vault downward. Within the inner vertical system, there is another one consisting of concentric transverse bundles, lining the cavity of the body, the direction of which tends to reduce the capacity of the space inclosed between the walls of the animal and the lower partition. A fourth system of circular concentric bundles is spread through the whole partition below. This last system, in its strongest contractions, may shut almost entirely the main cavity of the body, and, like the pupil of the eye, it opens and shuts constantly. In its less powerful contractions, it assists the inner transverse and vertical muscles in reducing the capacity of the inner cavity, and when deeply contracted, it helps, more fully than any other part of the contractile system, in forming the body into a sphere. Thus we have here four distinct motory systems: an external superficial system, an inner system, parallel to the former, a concentric system of the main cavity, and a concentric system of the partition below.

The nutritive system, with its ramifications, gives a peculiar aspect to this genus, and contributes greatly to its remarkable appearance. From the mere impression derived from the powerful movements and the great activity of the proboscis of this animal, we are at once led to infer that it is very voracious, the proboscis-like digestive cavity and the nettling appendages being well calculated to seize upon a living prey. This system begins with a central proboscis, of considerable size and length in proportion to the bulk of the body. It hangs down from the middle of the vault, and assumes the most diversified forms, in its various con-