

thread when this is fully expanded, and their various other dispositions, their frequent straight and apparently stiff elongation, and, still more, their sudden bending even in acute angles. These motions are so diversified, and sometimes so sudden, as to astonish even those familiar with the movements of these animals.

Having described above the position and changes of form of the digestive cavity, I have now only to add, that its inner surface has not throughout the same appearance, and is not uniformly flat. Near the aperture of the mouth, indeed, it is smooth; and, when the mouth is fully expanded, a broad funnel is opened, leading directly into the digestive cavity, assuming, however, in its contractions, very diversified forms, being at times perfectly circular, and at other times oblong, oval, or even angular. The anterior and posterior angles of the mouth form frequently a fold, or it assumes a linear shape, or a stellate form. The more the mouth is open and spread out, the more easy is it to follow to a considerable depth the tubes which extend vertically along the walls of the stomach or coeliac cavity. The walls of this cavity present four folds, two of which are in the direction of the fissure of the mouth, along the anterior and posterior walls of the stomach, and two others at right angles with them along the middle of its broader wall, in the plane of the transverse axis of the body. These four folds are lined with brown cells, suggesting the idea of a rudimentary liver, or, at least, that of secreting cells aiding in the process of digestion. Towards the abactinal extremity of the digestive sac, between those prominent folds, the walls of the digestive cavity are lined with a vibrating epithelium, which is particularly active round the abactinal opening of the sac, when this is fully open. This vibrating epithelium is continued upon the inner surface of the central chymiferous cavity, into which the stomach pours its contents.

If we now view this animal from the abactinal side, we find a variety of organs, the structure and connections of which are not easily understood. Considering them at first chiefly in their relations to one another, it will be seen that there is in that region an elongated area, well circumscribed in its outlines, extending in a longitudinal direction, in the same plane as the mouth, with a black speck in its centre (Pl. II^a. *Fig.* 20). Towards the centre of this area eight narrow bands are seen converging, and, in an oblique position to its axis, near the black speck, two slight projections may be observed near the margin of the area. The black speck in the centre rests upon a tubercle within, which is itself encircled by a fork of the funnel. This organ, which is considered as an eye-speck by some anatomists, and as an auditive sac by others, is a globular or broad pyriform mass (δ) of large, highly refractile cells or vesicular bodies, altogether enclosed in a large, exceedingly transparent, dome-like capsule (δ'). The pyriform mass (δ) is attached to the bottom of its capsule (δ') by its narrower end, and is constantly nodding or vibrating,