

(figs. 6, 10). The living specimen which I observed at Pola assumed moreover the peculiar attitude represented in Plate VIII. fig. 7. The Medusa lies on its back, extends a portion of the sucking-feet stiffly out round it, and attaches itself to the bottom of the glass, whilst the other portion of the sucking-feet play freely in the water, as if feeling and fishing for prey; the mouth, therefore, stretches vertically from the opening of the velum, which is contracted like a funnel, and also moves as if groping in different directions. The tentacles, when extended, are almost as long as the radius of the umbrella; when contracted they are much shorter; in the centre they are thickened like a spindle, and become thinner at either end. A more minute investigation of the tentacles shows that we can distinguish two different forms. The larger number have a sucking-disk, which is pigmented red at the end, and are used for crawling and adhesion by suction; the smaller numbers are simply pointed at the end, without sucking-disk, and are used as feelers, usually extended round and upwards, and moving like worms (figs. 6-10).

The velum (fig. 3, *vn*; fig. 7) is very thick, broad, and powerful. The plate of its circular muscles is arranged in numerous circular folds projecting from the subumbrel surface, which, by interference, produce an iridescence. It is probable that in *Pectanthis* (as in *Pectis* and *Pectyllis*) the velum can be extended so as to entirely close the umbrella cavity like a sphincter. The circular muscles of the subumbrella form projecting circular folds similar to those of the velum, but are arranged in sixteen arcades corresponding to the sixteen exumbrel ribs and to the sections of the umbrella margin between every second lobe (fig. 9, *wn*). The subumbrel exoderm is distinguished by scattered nematocysts (fig. 9, *wn*). The umbrella cavity is divided, as in *Pectyllis arctica*, into eight separate compartments, or funnel cavities, as the eight broad leaf-shaped mesogonia (fig. 9, *wr*) are stretched between the radial canals and the basis of the stomach (see below).

The central four-lobed oral opening leads into a tube-shaped four-sided stomach, from whose basis eight radial canals (four perradial and four interradian) run out in the bottom of the umbrella cavity. These bear the eight genitalia as sack-shaped evaginations in their proximal half, and are united in the umbrella margin by a circular canal which sends out branches into the tentacles. The central œsophagus (fig. 9, *gb*) hangs down in the middle of the umbrella cavity as a muscular tube of a gold-yellow colour, and prismatic quadrate form. The four interradian lateral surfaces are slightly depressed into a groove between the four rounded perradial bodies. The œsophagus is nearly as long as the radius of the umbrella when extended, much shorter when contracted. The oral opening is divided by four shallow grooves into four short blunt oral lobes (*al*) armed with an accumulation of nemocysts. The mouth can project out of the umbrella cavity through the opening of the velum, and extend externally in the form of a very thin flat octagonal sucking-disk (fig. 3, *am*).