

corona with the coronal muscle and the deltoid muscle lying above it. The wide hollow space of the coronal umbrella cavity is filled, for the most part, by the powerful buccal stomach, whose oral margin extends to its opening. The quadrilocular funnel umbrella cavity (which is sharply defined by the four palatine nodes (*gk*) from the simple umbrella coronal cavity) shows however an essential variation in our species. Whilst in *Periphylla mirabilis* the four conical interradial umbrella funnels traverse the whole length of the central and the basal stomach, and meet above in the central point of the umbrella cone, in *Periphema regina* they stop some little way below the cone; the four points of the funnels are here inserted separately at four interradial points of the umbral wall of the flattened basal stomach, which are at 4 cm. distance from each other. This occasions a perfectly different formation of the basal stomach, which chiefly justifies the foundation of the genus *Periphema*.

Apart from the differentiated formation of the basal stomach, the gastrovascular system of *Periphema regina* shows essentially the conditions already described in detail in *Periphylla mirabilis*. Only the special formation of single parts and their comparative sizes show unimportant differentiations. Of the three chief sections of the axial principal intestine, the buccal stomach is the largest, being 8 mm. high, whilst the height of the central stomach and of the basal stomach only amounts to 5 cm.

The buccal stomach or œsophagus (fig. 3) is extremely fleshy and thick walled. The four quadrants of the œsophagus were found as four isolated fragments, still partially connected with the pieces broken off from the central stomach, in the bottle containing the incomplete remains of our species. One such quadrant is represented in natural size in fig. 3. Each quadrant contains a complete buccal pouch (*bb*), and the enclosing half of the oral column touching it (*ee*). From the beast having been torn during its capture, the œsophagus was quartered through the interradial meridian planes. The reconstructed form of the buccal stomach is on the whole that of a cube of 7 cm. to the side; more closely considered, it forms rather an octagonal prism with alternating broad and narrow lateral surfaces; the former are formed by the buccal pouches, the latter by the oral columns. The oral columns ("columnæ buccales," fig. 3, *ac*), are remarkably strong, and supported by a powerful, fleshy, gelatinous swelling. The adradial wings of the oral columns ("alæ buccales," *ad*) appear extremely fleshy, and laid internally in strong longitudinal folds, whilst their interradial middle plate is thinner, very much extended and diminished in size, towards the oral margin. The wings project internally considerably above the lateral parts of the buccal pouches, so that they are arched out on both sides into spacious wing pouches. The buccal pouches ("bursæ buccales," *bb*), when inflated would be almost hemispheroidal: their wall is supported by a thin, elastic but firm, gelatinous plate, which is broadened below and rounded obtusely at the oral margin. The distal ends of the eight adradial wings therefore project most below at the oral margin (*am*), without running out into barbous filaments as in