

becomes considerably thickened above, and then passes directly into the four perradial palatine nodes (*gk*), by which the buccal stomach is fixed to the subumbrella.

The palate or palatine opening ("palatum, porta palatina," *gp*; Pl. XX. fig. 11; Pl. XXI. figs. 12, 13, 18, *gp*) forms the important opening for communication between the buccal stomach (*ga*) and central stomach (*gc*); it can probably be completely closed by muscular contraction in the living *Periphylla*. Properly speaking, it consists of the wide central palatine opening and the four perradial palatine grooves surrounding it. The central palatine opening ("porta palatina", *gp*) is quadrate, its interradial lateral margins are formed by the upper, swollen and thickened, aboral margins of the buccal columns (*ac*), which here pass immediately into the lower delicate oral margins of the thin obelisk plates (*gz*). Its perradial corners, on the other hand, communicate by a narrow cleft (perhaps capable of closing) with the four palatine grooves which represent in some measure four secondary openings of the central principal opening (figs. 8, 11, 18, *gs*). These four perradial palatine grooves ("sulci palatini," *gs*) lead from the oral cavity immediately towards the outside into the coronal sinus, and form, at the same time the dilated distal ends of the cleft-shaped gastral openings (*go*). They are imbedded in the cartilaginous mass of the four palatine nodes ("nodi palatini," *gk*). It appears that the palatine grooves remain open even when the principal opening is completely closed, and then by contact of the two lips of their fissure can be transformed into short closed canals (of about 3 mm. in diameter).

The central stomach ("gaster centralis, obelisk stomach," *gc*; Pl. XX. fig. 8; Pl. XXI. figs. 11-18), the middle of the three divisions of the axial principal intestine, is somewhat smaller than the buccal stomach, and has, on the whole, the form of an obelisk or a truncated regularly quadrilateral pyramid (figs. 12, 13, *gc*). We can distinguish geometrically two bases and four lateral surfaces. The lower (oral) base is formed by the palatine opening described above ("palatum," *gp*), by which the central stomach opens into the buccal stomach. The upper (aboral) basis, on the other hand, occupies the quadratic pyloric opening ("pylorus" *gy*), by which the central stomach communicates with the basal stomach. The four interradial lateral surfaces of the obelisk-shaped central stomach form four trapezoid, or almost rectangular thin lamellæ, which on account of their special importance I have termed (once for all, to prevent confusion) the four obelisk plates of the central stomach ("tabulæ obelisci," *gz*). The thin wall of these quadrangular plates, which are placed more or less vertically, belongs properly to the subumbrella, and is formed by a delicate but firm gelatinous plate or supporting lamella, whose inner or axial surface is covered by gastral endoderm and its outer or abaxial surface by the subumbral ectoderm of the funnel cavities, and a thin layer of muscle belonging to it. The upper or aboral margin of each obelisk plate is formed by a quadrant of the pyloric stricture (*gy*), the lower or aboral margin by a quadrant of the palatine stricture (*gp*), whilst the two lateral or longitudinal margins are beset with a row of gastral filaments