

segments of an incomplete frontal ring (*Acrocubus*, Pl. 93, figs. 15-17). Between the latter and the former there are sometimes developed four tertiary columellæ, as segments of two crossed incomplete diagonal rings (*Tympanidium*, Pl. 94, figs. 1, 18). At other times we find six columellæ; here probably the frontal ring is cleft into halves on each side (*Tympaniscus*, Pl. 94, figs. 4-7). Some genera are distinguished by the development of an equatorial ring, or a third horizontal ring (between the upper mitral and the lower basal ring); this equatorial ring is either complete (*Microcubus*, Pl. 94, figs. 8-10) or incomplete, developed only laterally (*Octotympanum*, Pl. 94, figs. 2, 3). The genus *Toxarium* (Pl. 93, figs. 18-20) is distinguished by the development of accessory pairs of bows in the frontal plane, upper or galear bows and lower or thoracal bows, remarkable as beginnings of the accessory joints, which we distinguish in many *Spyroidea* and *Cyrtoidea* as "galea and thorax."

The second subfamily of Tympanida are the Paratympanida, in which the two horizontal rings become closed by lattice-work. The numerous columellæ connecting the two rings are here either divergent (*Paratympanum*, with two unequal rings, Pl. 94, fig. 14) or parallel and vertical (*Lithotympanum*, with two equal rings, Pl. 83, fig. 1). The shell of the latter assumes the form of a drum.

A third small subfamily, Dystympanida, is represented by a single genus only, *Dystympanium* (Pl. 94, figs. 15, 16). Here only the upper or mitral ring is closed by lattice-work, whilst the lower or basal ring exhibits a quite simple opening, a large "basal gate" which has probably arisen by loss of the basilar rod of the sagittal ring. These curious forms exhibit a remarkable resemblance to some *Monocyrtida*, and also to the *Dictyocha* (PHÆODARIA).

The fourth subfamily, the Eutympanida, are distinguished by the simple wide aperture of the two horizontal rings; the upper enclosing a simple "mitral gate," the lower a simple "basal gate." Here probably the two horizontal parts of the sagittal ring (the upper mitral rod and the lower basilar rod) are lost by reduction; its two vertical parts (the dorsal and ventral rods) only remaining and forming the two parallel columellæ, which connect the two horizontal rings (*Parastephanus*, Pl. 93, fig. 21). In this group also secondary columellæ are commonly developed between the two rings, alternating with the two primary columellæ. *Pseudocubus* (Pl. 94, figs. 11, 12), resembling an obelisk, exhibits four divergent columellæ; the two sagittal of these are probably the vertical parts of the primary ring, whilst the two lateral are the halves of an incomplete frontal ring. In *Lithocubus* (Pl. 82, fig. 12) the four columellæ are parallel and vertical, the two rings being equal; the shell here assumes the form of a geometrical cube. *Prismatium* is distinguished by three parallel columellæ; two of these are probably parts of a frontal ring, whilst the third is the remains of a reduced sagittal ring. In *Circotympanum* (Pl. 94, fig. 17) and in *Lithotympanum* (Pl. 82, fig. 11) the number of the columellæ is augmented, there being six to eight or more; in the former they are divergent