

operculum, is often rather short, and bears the same relation to it as the nipple does to the human breast (Pl. 104, fig. 2). But usually it is more or less prolonged and often about as long as the radius of the capsule, rarely nearly as long as its diameter (Pl. 101, fig. 1). Its form is usually a slender cylinder, sometimes somewhat conical and tapering towards the distal end. It is more or less curved or S-shaped in the majority of preparations (Pl. 115, fig. 3; Pl. 127, fig. 6, &c.). Its thin wall is a direct prolongation of the outer membrane of the capsule, therefore it appears as a direct apophysis of the operculum, when this is detached from the latter. The opening at the distal end of the proboscis, through which the endosarc is thrown out, is circular.

The parapylæ, or the accessory openings of the central capsule, exhibit in all PHLÆODARIA the same form and structure, but vary in number and disposition. They are recognised with difficulty in the smaller species, since they are always of small size, and may be easily overlooked. They seem to be completely wanting in the following families:—Challengerida (Pl. 99), Medusettida (Pls. 118–120), Castanellida (Pl. 113), and in single genera of other families, as in *Phæocolla* (Pl. 101, fig. 1). The majority of PHLÆODARIA seem to possess the two lateral parapylæ, first described by Hertwig, placed at a variable distance on each side of the aboral pole, to the right and left (Pl. 101, figs. 2, 6, 10; Pl. 103, fig. 1a; Pl. 104, figs. 1, 2a; Pl. 123, figs. 1, 8a, &c.). The horizontal axis, in which the two parapylæ lie, is the frontal or lateral axis; and the plane, which passes through the three openings of these "Tripylea," is the frontal or lateral plane. The number of the parapylæ seems to be variable in the two families, Circoporida and Tuscarorida, which also differ from the other PHLÆODARIA in the peculiar (porcellanous) structure of their shell-wall. The number seems to vary even in the single species of one genus; and the following cases may be found: (A) a single parapyle, placed on the aboral pole of the main axis and directly opposed to the astropyle (on the oral pole), as in *Tuscaridium* (Pl. 100, fig. 8); (B) three equidistant parapylæ, one of which is placed in the sagittal plane, and the two others one on each side of it, to the right and left, as in *Tuscarora* (Pl. 100, figs. 1–6); the three parapylæ seem to correspond here to the three long feet, or the tubular aboral apophyses of the shell, which are arranged in a similar manner to the three cortinar feet of the NASSELLARIA; (C) four equidistant parapylæ, placed in pairs on the poles of the diagonal axes of a horizontal plane, as in *Tuscarusa* (Pl. 100, fig. 7); they seem here to correspond to the four crossed aboral feet; (D) six to eight or more parapylæ, probably in the different genera of Circoporida (Pls. 114–117); perhaps each radial tube, which is surrounded on its base by a circle of pores, here corresponds to a separate parapyle. The number of well-preserved central capsules belonging to the two latter families, however, which I could examine was relatively small, and their examination very difficult; therefore these numbers are not stated with satisfactory certainty and require a further more accurate examination.