

and compose the spiny surface of the peculiar "fork-thicket;" whilst in the Cœlographida they become connected by frequent anastomoses and form the outer "lattice-mantle." The styles, however, are much longer, projecting over the surface of the thicket or the mantle, and are not dichotomously branched, but verticillate, or armed with cruciate or alternately cruciate pairs of branches; the larger branches of the styles may be again dichotomously branched, like the brushes; whilst the free prominent parts of the styles are always verticillate or cruciate-pinnate. The brushes are identical with the hollow tubes of the Cœlodendrida, whilst the styles are peculiar forms of apophyses, wanting in the latter.

The minimum number of hollow tubes which arise from each valve is three, and these are probably homologous with the three primary tubes of the Cœlodendrida. Two of these are paired (right and left), whilst the third is odd and lies in the sagittal plane; they have the same position as in the tripodal NASSELLARIA, and may therefore bear the same names, the two paired anterior or pectoral tubes being divergent forwards, the odd or caudal tube being directed backwards (so in the Cœlotholida, Pl. 121). The odd caudal tube (probably identical with the odd tube of the Cœlodendrida) is always a brush, dichotomously branched, and never prolonged into a free style. The two paired frontal or pectoral tubes, however, are usually prolonged into two long verticillate styles. The basal origin also of these three primary tubes is different. The two pectoral or anterior paired tubes always arise from the galea itself, whilst the posterior odd or caudal tube usually arises behind the galea from the valve (Pl. 127, figs. 4-8, *g* 6).

Since these three primary tubes, the odd caudal and the paired pectoral, are probably homologous in all Cœlographida and Cœlodendrida, they have a great morphological importance, similar to the three primary feet of the NASSELLARIA. All other tubes arising from the valves must be regarded as secondary apophyses, since they are not constant in all members of the two families, but present only in some of them. All the Cœlotholida observed (a small number of species only) possess no secondary tubes, but only the three primary; whilst all Cœloplegmida possess one or more secondary tubes, and one of these is constant, viz., the odd nasal style, directed towards the mouth, and arising as the foremost from the apex of the galea (Pl. 127, figs. 4-8, *g* 1).

The maximum number of tubes observed, which arise from each valve in the Cœloplegmida, is eleven; five of these are odd and placed in the sagittal plane of the body, viz.:— (A) the primary caudal tube (Pl. 127, figs. 4-8, *g* 6); (B) an odd procaudal tube, arising between the caudal and the sagittal tube; (C) the sagittal tube, placed either in the sagittal axis of the body or near it (often prolonged into a sagittal style, Pl. 128, fig. 1); (D) an odd postnasal tube, arising between the sagittal and the nasal tube; (E) the odd nasal tube, constant in all Cœloplegmida, and connected at its base by the odd frenulum with the rhinocanna (Pl. 127, figs. 4-8, *g* 1). All other tubes occurring in the Cœloplegmida are paired, and symmetrically arranged on both sides of the sagittal