

The second subfamily of the Porodiscida are the Trematodiscida, which are derived from the preceding Archidiscida by concentric growth in the equatorial plane. In the same way in which the simple chambered ring of *Archidiscus* is connected by radial beams with the central chamber, so in *Porodiscus* a variable number of concentric rings is connected with that first ring. The number of these concentric rings varies between two and ten or more, but commonly amounts to between three and five. The radial beams connecting them are either piercing or interrupted; their number increases gradually from the centre towards the periphery. The chambers between them are sometimes more regular, at other times more irregular in size and form. Their upper and lower wall is formed by the two covering "sieve-plates," or the porous cover-plates, which are continued from the central disk to the margin. If these two sieve-plates continue being parallel, the disk becomes medal-shaped or a short cylinder; if the two plates become more or less concavely vaulted one against the other, the disk becomes biconvex lenticular, the middle part thicker than the marginal part. Rarely the contrary is the case, the margin thicker than the centre, and then the disk biconcave.

In my Monograph I had separated as two different subfamilies the true Trematodiscida (with circular concentric rings) from the Discospirida (with spirally convoluted rings). But the enormous mass of specimens, which I afterwards examined in the Challenger collection, has convinced me that this separation was not natural. For in one and the same genus of most nearly allied forms we find on one hand quite regular concentric circular forms (*Trematodiscus*), on the other hand spirally convoluted forms (*Discospira*), and connecting between them such forms as are in the central part concentric, in the marginal part spiral (*Perispira*)—or conversely, these in the centre spiral, on the margin concentric (*Centrospira*)—and frequently also more or less irregular forms with interrupted rings (*Atactodiscus*); therefore, all those genera (Prodromus, 1881, Nos. 448–452) have only the value of subgenera of *Porodiscus*. But a distinct genus is *Perichlamydidium*, in which the two sieve-plates run on the margin of the lens and form a broad hyaline porous or solid girdle. More important is the distinction of the Ommatodiscida, in which the margin of the disk exhibits one larger osculum, armed with a corona of spines (*Ommatodiscus*), or two oscula, opposite on the poles of one axis (*Stomatodiscus*). Whilst in many Porodiscida all chambers of the concentric rings lie in one and the same (equatorial) plane, in many others with further growth they become stratified in floors, and the whole disk is therefore composed of two to four or more parallel disks, each with a system of concentric chambered rings or girdles, quite as in the majority of the Coccodiscida (p. 457). Often the central part of the lenticular disk becomes thickened by apposition of such floors or strata, whilst the marginal part remains simple, with one single stratum. The communication between the chambers of the different strata seems to be the same as in the similar Coccodiscida.

Also the margin of the disk exhibits in the Porodiscida the same characteristic