

disappear, they are of very variable size even in the spicules in which they are constantly present, frequently reduced to 0.004 mm. in length, and their disappearance as in the discostrongyle need cause us no surprise. A reduction, in this case more readily intelligible than in many others, has taken place of a precisely similar character to that which produces a microxea from a spiraster or an oxyaster. The crepis, now become monaxial, is liable to an independent series of modifications, and no longer compelled into a definitely orientated position by the presence of cladal axes, assumes a position partly tangential, partly radial, and partly intermediate or oblique, the disc-like expansion is produced by the same tendency as existed before, and discs result in which the crepis may lie either wholly immersed, or only partially, as in *Neopelta*. But the existence of the discs themselves is no longer necessary with the changed position of the crepides, and so in *Scleritoderma* we find lying beneath the epithelium merely a felt of strongyles altogether tangentially arranged. Thus owing to the changes in the structure of the adult spicule working their way backwards till they affect the embryonic spicule or crepis, fresh series of changes are evoked which lead to fresh series of modifications in the adult. This hypothesis serves to connect the dichotriænes of *Corallistes* with the strongyles of *Scleritoderma*; but it is purely a hypothesis, and in view of the presence of sigmaspires in the last-named genus, the possibility that it may be an advancing and not a reduced form must be carefully borne in mind.

Family III. PLEROMIDÆ.

Triænopora in which the desma is monocrepid, and smooth, not tuberculated; zygosis is produced by the expanded ends of the cladi of one desma clasping the sides of the epirabd or cladi of another.

Genus 1. *Pleroma*,¹ n. gen.

Pleromidæ in which the flagellated chambers are large, with wide, short aphodi. The microscleres are microxeas and spirasters.

Pleroma turbinatum, n. sp. (Pl. XXXIII.).

Sponge (Pl. XXXIII. figs. 1-2).—Small, obconic, compressed, terminating below in a small, short, rounded pedicel, upper surface slightly convex, depressed in the middle, margin rounded, oscules small, confined to the upper surface, the simple openings of narrow vertical canals. Pores simple, generally distributed over the sides.

Spicules.—I. Megascleres. 1. *Desma* (Pl. XXXIII. figs. 7-7e); this consists of a

¹ πληρωμα, τό, a full measure, complement; in allusion to the presence of a full complement of spicules.