

between the costæ, and each divided into two by the septa which alternate with the costæ. Septa, except the primaries, which are free, coalescing successively according to order, and forming deltoid figures, beset with a series of long outwardly-directed spines on their free margins; attached beneath to the transverse trabeculæ which separate from one another the perforations of the wall by a series of short processes, in the intervals between which their lower margin is free. Columella large, spinous. Animal provided with knob-bearing tentacles.

I have founded this genus to contain two very remarkable corals, dredged in deep water, which are so fragile that it is astonishing that they arrived at the surface in such good preservation as that in which they were obtained. The two species differ markedly from one another, but have so many fundamental agreements that they must evidently be placed in the same genus. They are evidently closely related to the *Stephanophyllias*, but their corallum is so perforate as to be reduced to a mere lace-work. No corals immediately like them appear to have been procured before, or since, either in the recent or fossil condition. Specimens belonging to the genus were dredged on four occasions, all from deep water (over 1500 fathoms), and all in the Southern Hemisphere.

Leptopenus discus, n. sp. (Pl. XIV. figs. 1-4; Pl. XVI. figs. 1-7).

Corallum white, discoid, flat, excessively thin; its greatest height, which is in its centre measured to the top of the columella, being not more than 2 mm. Base consisting of a network composed of a series of long, delicate costal trabeculæ radiating from its centre. These radiating trabeculæ bifurcate at regular intervals, and the number of them thus regularly increasing from the centre of the disc outwards, they terminate at the margin of the disc in a series of pointed spinous projections seventy-two in number.¹ The notches between these marginal spines are not all equally deep, but those between every alternate pair are deeper. The less deep notches correspond with the major septa in position. The radial trabeculæ are connected at regular intervals by a series of transverse narrow rounded bars of calcareous matter, which divide the spaces enclosed between the radial trabeculæ into a series of transversely elongate, oval, or reniform apertures. These elongate apertures are transversed above in their centres by the under edges of the septa, and thus appear on the upper surface of the disc as pairs of perforations. There are about twenty-four or twenty-five apertures in each radial interspace between the centre of the disc and its margin. The wall of the disc is slightly radially pleated, so that each of the costal trabeculæ is made prominent beneath; whilst on the surface, the middle lines of the intervals between these trabeculæ, corresponding with the lines of attachment of the septa, are thrown upwards to about the same extent.

Near the margin of the disc, between the bases of the marginal spines, a small amount of excessively thin laminar matter representing true wall substance is developed

¹ In the figure Plate XIV. figs. 1 and 2, seventy-one only are, by an error of the artist, indicated.