

The madreporiform body is rather large but indistinctly defined, and its surface is marked with a few coarse, deep, irregular furrows. It is situated at the summit of one of the sloping median interradial depressions above described.

Colour in alcohol an ashy grey.

Locality.—Station 166. Off the west coast of New Zealand. June 23, 1874. Lat. $38^{\circ} 50' 0''$ S., long. $169^{\circ} 20' 0''$ E. Depth 275 fathoms. Globigerina ooze. Bottom temperature $50^{\circ} \cdot 8$ Fahr.; surface temperature $58^{\circ} \cdot 5$ Fahr.

Remarks.—Although the example described is a small and probably not fully grown specimen, its characters appear to be sufficiently well marked to justify its being regarded as a distinct species. It is characterised by the delicate form, by the large plates with the compact groups of numerous spinelets, by the small but well-defined papular areas, by the distinct series of marginal plates, and by the character of the armature of the adambulacral plates. In these points *Cribrella compacta* is readily distinguished from *Cribrella ornata*.

4. *Cribrella obesa*, n. sp. (Pl. XCVI. figs. 3 and 4; Pl. XCVIII. figs. 5 and 6).

Rays five. $R = 70$ mm.; $r = 13$ mm. $R > 5r$. Breadth of a ray near the base, 15 mm.

Rays rather short, cylindrical, and with a short and swollen appearance, the shortness being emphasised by the recurved tips, and the swollen character by the presence of a deep and constricted sulcus in the median interradial lines, which gives the appearance of a small disk with very tumid rays closely pressed together. This, however, is in a great measure deceptive. The rays taper from the base to the extremity, which is not attenuate.

The plates of the abactinal surface are small and their arrangement forms an open network. The plates are beset with small, low, robust, rounded papilliform spinelets, of which two short lineal series are usually present in each group, two or three of these groups and plates going to form the side of a mesh. Within the larger meshes there may be one, two, or more small plates, which seldom bear more than one of the small papilliform spinelets or granules, and single isolated papulæ are present. On the margin of the abactinal area, and on the upper part of the lateral wall, the spinelets become more delicate and tapering.

Rather low down on the lateral wall of the ray is a distinct narrow longitudinal line traversing the whole length, and composed of elongate, horizontally disposed plates, which I consider to be the representatives of a series of narrow supero-marginal plates. Immediately below this series is a series of small, vertically disposed, widely spaced plates, succeeded by another series of much larger plates, also vertically disposed, which I take to be the representatives of the infero-marginal plates. Between these and the adambulacral plates at the base of the ray are two or three longitudinal series of actinal intermediate plates, but these do not extend far along the ray, and