

augentur numero; corona viginti-quatuor denticulorum in marginali limbo artissime striato. In oceano Pacifico.

The centre of this magnificent disc presents a small, smooth, irregular area, to which radiating lines of equal round granules converge on all sides. Some of these lines become interrupted as they pass inwards, owing to the diminution of the size of the space, and where such interruptions occur, long triangular spaces become interpolated. Near the margin the granules suddenly diminish in size, and assume the appearance of very minute radiating striæ. Twenty-four denticules project around the broad border. Although this Diatom does not seem to differ much from the two preceding, the small irregular umbilical area, and the notable convexity of the valve, point to its true specific character. In addition to the figure of the valve from the valval aspect a small ideal figure from the zonal side has been added in order to show the notable convexity of this frustule.

Cestodiscus coronatus, n. sp. (Plate VII. fig. 9.)

Disciformis, medio granulatus, ad marginem striatus; centrum a margine dividitur per coronam e cellulis oblongis, grandiusculis, a qua exterius oritur denticulorum series. In mari Pacifico.

In this Diatom, which also belongs to the group having a continuous system of granulation and a small umbilical area, the beautiful granulation radiates from a small umbilical area in the central part of the valve, while the margin is ornamented with delicate striæ. The two areas, which are thus differently sculptured, are separated by means of a corona of beautiful large oblong cellules, from which a series of spines or denticules pass towards the circumference. Apart from these denticules the other structural details recall those of the genus *Brightwellia*, Ralfs.¹

Cestodiscus gemmifer, n. sp. (Plate II. fig. 7.)

Disciformis; granulis rotundis; grandiusculis; circumconfertis, radiantibus, ad aream centralem raris et irregulariter distributis, æqualibus, ad marginem minuentibus et ad spectum zonæ marginali striolatum tribuentibus; spinæ vel denticuli plures (38) marginales. In oceano Pacifico.

This large form has a disc about $\frac{1}{7}$ of a millimeter in diameter. It is ornamented by large round granules, which are crowded towards the periphery, but rare and scattered about the centre. These granules gradually diminish in size near the marginal zone, and finally assume the appearance of fine radiating striæ. The spines which project around the margin are more numerous than usual, being thirty-eight in number in the specimen figured. The peculiar irregular distribution of the large granules in the middle area, and the large smooth central space are, however, the chief distinguishing features of the present frustule.

¹ *Micr. Journ.*, n. s., vol. i., 1861, p. 74.