

occurring between two of the radiating lines of granules which proceed from the submarginal processes and run towards the centre.

Greville defines the genus *Cestodiscus*<sup>1</sup> as follows:—"Frustules disciform (circular or oval), disc with radiating granules or cellules, and a submarginal circle of obtuse processes unconnected by means of special radiating lines of cellules with the centre."

To this description the following character, which may be constantly observed in all specific forms, should be added, namely, the radiating granules or cellules of the central part of the disc become more or less abruptly minute crowded granules or points, on approaching the margin. This may be well seen in *Cestodiscus trochos* described below.

*Cestodiscus trochus*, n. sp. (Plate VII. fig. 1.)

Valvis rotundis; distinctorum granulorum radiis a centro dimanantibus, pluribus brevioribus insertis; granulis rotundis, distinctis, æqualibus, ad marginem sensim diminuentibus et stipatis; ad extremum plurimum (32) denticulorum extat corona. In oceano Pacifico.

In this beautiful disciform Diatom there is a group of small, somewhat sparsely disposed granules in the centre, and from this region a series of distinct radiating lines of granules pass out towards the periphery near to which other shorter lines are interposed between these. The granules are usually large and equal, but become smaller near the margin, and finally in a narrow marginal belt become extremely fine and crowded so as to present the appearance of very delicate striæ. Around the striated border very small processes occur. These are irregularly disposed, and accordingly divide the circumference irregularly. They are thirty-two in number in the specimen figured. The specific name<sup>2</sup> has reference to the wheel-like appearance presented by the larger radiating granules that form lines across the valves.

*Cestodiscus trochus*, n. sp., var. nov. (Plate VII. fig. 3.)

A variety of the preceding species is here shown. It differs from the typical form (1.) in the size of the granules, which are larger; (2.) in the condition of the centre, which is marked by a small irregular group of somewhat smaller granules; (3.) in the smaller number—twenty-four—of denticules in the submarginal corona; and (4.) in the more abrupt change in the size of the granules at the border, where they assume the appearance of minute striæ. The general aspect of the two frustules, however, is the same, and the above distinctions cannot be looked upon as of specific importance.

*Cestodiscus convexus*, n. sp. (Plate VII. fig. 6.)

Forma rotunda, convexa; grandiusculorum granulorum ordinibus ab umbilicali area dimanantibus, et continuo crebrescentibus; ad marginem granuli minuuntur mensura,

<sup>1</sup> *Trans. Micr. Soc. Lond.* n. s., vol. xiii., 1865, p. 48.

<sup>2</sup> τροχός, a wheel.