

the frustule has been observed from its zonal side; they have accordingly been provisionally assigned to the genus *Coscinodiscus*, with which there at least exist marked affinities.

*Coscinodiscus africanus*, Janisch, var. *rotunda*, nov. (Plate XXIV. fig. 3.)

The type of which the present frustule is regarded as a variety is represented on plate lix. figs. 24 and 25, of A. Schmidt's Atlas of the Diatomaceæ.<sup>1</sup> The character of the granulation, which radiates from an excentric point, is the same in both, but the figures given by Schmidt are elliptical, while the valve here shown is round, and bears radiating lines which are not equidistant. These differences, however, cannot be looked upon as of more than varietal significance.

*Coscinodiscus decrescens*, n. sp. (Plate XII. fig. 14.)

Valvis striato-cellulosis; cellulis grandiusculis a centro ad marginem minuentibus; margine nonnullis punctulis (denticulis) signato. Ad mare Philippinarum.

This minute disc, from the Philippine Sea, is distinguished by the large hexagonal cellules which are found on its central part, but which decrease in size towards the periphery. The margin is ornamented with a few more salient points which render it more distinct and prominent.

*Coscinodiscus ebulliens*, A. S., var. nov. (Plate V. fig. 1.)

The frustule here delineated is adorned with irregular cellules, which are irregularly distributed, the larger usually occupying a well-marked area about half-way between the centre and the periphery. Although presenting marked affinities with *Coscinodiscus ebulliens*, A. S., which is shown on plate lxi. figs. 11 and 12 of Schmidt's Atlas, it may be readily distinguished from the latter by the possession of a neatly striated margin, which is not represented in the typical species.

*Coscinodiscus undulatus*, n. sp. (Plate VIII. fig. 3.)

E maximis; cellulis subradiantibus hexagonis; valvis concentricè undulatis; centrum granulo vel cellula vacat. Diametrum = 390  $\mu$ . In Oceano Pacifico.

This superb disc, which measures not less than 390  $\mu$ . in diameter, is ornamented with large hexagonal cellules, except at the centre, where a small smooth space occurs. Its surface is broadly undulated, so that under the microscope the cellules seem to occur in alternate zones—a circumstance which has suggested the specific name.

<sup>1</sup> In a note appended to the explanation of his figure of the typical species Schmidt says: "Peripherie elliptisch, Mitte der Sculptur stets zur Seite geschoben."