Coscinodiscus rhombicus, n. sp. (Plate XXII. fig. 11.)

Forma rhomboidalis, apicibus rotundatis; granulis ad centrum rariusculis nullo certo ordine, ad marginem crebescentibus et sensim in strias radiantes transeuntibus. In mari Japonico.

This elegant valve from the Sea of Japan possesses a rhomboidal outline. The central space is ornamented by well-defined granules which are free from one another, and arranged in no definite order. They decrease in size, but become more numerous towards the margin, and finally pass into the condition of delicate radiating striæ. In its general characters this Diatom recalls the genus *Cestodiscus*, but the absence of rare distinct and salient granules around the margin prevent it from being ascribed to that genus. The specific name has reference to the form of the outline of the valve.

Coscinodiscus lanceolatus, n. sp. (Plate XVII. fig. 19.)

Forma parva, elliptico-lanceolata, granulis vel cellulis stipata a centro radiantibus et decrescentibus. Ad meridiem Australiæ.

This elliptico-lanceolate form was procured in the neighbourhood of Sydney, South Australia. It is densely covered with irregular granules or cellules, which decrease in size as they pass from the centre towards the circumference.

Coscinodiscus ovalis, Roper. (Plate XVII. fig. 18.)

This form was found in a sounding made near Yedo, in the Sea of Japan. The frustule exactly corresponds to those in a collection of *Coscinodiscus ovalis*, Roper,[1] which was given to me by the well-known French microscopist Alphonse de Brébisson, and it shows marked differences from any of the preceding types.

Coscinodiscus margaritaceus, n. sp. (Plate XVIII. fig. 3.)

Mediocris; valvis margaritarum subæqualium seriebus ab area centrali radiantibus distinctis, quæ abrupte ad marginem in punctulorum lineolas transeunt. In mari Antarctico.

In its general characters this Antarctic valve is closely allied to the genus *Cestodiscus*. Its form is circular, and it is ornamented by rows of beautiful cellules, which are disposed in radiating lines. The central area is smooth and irregular. Towards the periphery the granules suddenly become small, so that the border is formed by thickly disposed lines of minute points. It differs, however, from the *Cestodisci* in possessing no prominent points or processes around its circumference, and it must accordingly be looked upon as a specific form of the genus *Coscinodiscus*.

[1] *Micr. Journ.*, vol. vi. p. 22, pl. iii. fig. 4, 1858; Pritchard, *op. cit.*, p. 831, pl. v. fig. 78.