

junction, which are crowned by denticles. Each is provided with a double furrow near the centre, and the partitions are densely granulated in a quadrate manner.

This new species has been named from the locality in which it was first observed.

Melosira glomus, n. sp. (Plate XXI. fig. 10.)

Frustulis cylindræo-suborbicularibus, dense quadrato ordine punctulatis, medio zona lævi cinctis. Ad portum Thaiti.

The spheroidal frustules which compose this Tahitian Diatom present very many granulations save in the smooth linear zone which surrounds each in the middle region. The entire series is irregular on account of the different conditions of development of the component parts, and the valves also vary from the subhemispherical to the depressed convex form. But for the condition of the median band this form would agree with the *Melosira labuensis* of Cleve; but its true specific value cannot, in view of the characters quoted, be called in question.

The specific name has been given from its resemblance to balls of coarse thread.

Plate XXIII. fig. 4, represents a variety of *Melosira glomus* from the port of Tahiti; it may be named *Melosira glomus*, n. sp., var. *major* nov.; while Plate XXI. fig. 11, is a doubtful species of the same genus collected in the Sea of Japan.

Thalassiosira, Cleve.

This genus was established by Professor Cleve of Upsala, in his paper On Diatoms from the Arctic Sea,¹ and was characterised by him in the following manner:—"Side view circular, with a row of submarginal spines; sculpture very minutely cellular, cellules arranged in radiating and curved lines, crossing each other. Front view quadrangular, with truncate angles, connecting membrane broadly linear, without any distinct sculpture. Frustules, in the living state, connected by means of a central fine thread of mucus into long filaments."

From specimens of remarkable purity obtained from the Arctic Sea, and more especially from Davis Straits, Cleve established the species *Thalassiosira nordenskiöldii*.² This Diatom occurs in these regions in such enormous quantities as to colour the sea for many miles, but I have not observed it in the collections made by the Challenger in the Antarctic Ocean among the South Polar icebergs. It is, however, of the greatest importance to note that I have recently found numerous specimens of *Thalassiosira* along with many other Diatoms in the alimentary canals of two Echini which were procured at a depth of 1340 fathoms in lat. 41° 15' N., long. 65° 45' W. These frustules constituted the food of

¹ *Bihang k. Svensk. Vet. Akad. Handl.*, Band i., No. 13, p. 6, pl. i. figs. 1a, 1b, 1c, 1d, Stockholm, 1873.

² *Op. cit.*, p. 7.