Podosira, is seen in the centre. The awns are ribbed, gradually attenuated, and bear sparsely disposed but well-defined thorns along their margins. The valves are perfectly smooth.

This exceedingly elegant Diatom was found in a preparation made on board the Challenger, and has been named in honour of Mr John Murray.

Corethron (?) sp. (?). (Plate XXI. fig. 6.)

The singular spherical organism here represented is provided with a raised zone, showing a double row of distinct round granules, and a corona of very fine echinated and slightly arcuate awns. Although it is by no means an easy matter to determine to what this strange form belongs, I am of opinion, from the fact that it has been found associated with other Corethral frustules, that it is a young form of a species of *Corethron*, the adult form being reached by the development of a connecting zone. The entire frustule would thus become cylindrical, and be terminated by two convex valves, which would be surrounded at their margin by a corona of granules and by circlets of awns.

Stephanopyxis, Ehrenb.

Greville[1] and Professor Walker Arnott, departing from the recognised laws of nomenclature, have desired to substitute the name *Cresswellia* for that of *Stephanopyxis* established by Ehrenberg. This substitution, however, has not been generally adopted, notwithstanding the claims that have been advanced in its favour, so that the old designation remains, the genus being defined as follows:[2]—"Frustules simple or united into short filaments, in front view orbicular or oblong, composed of two cellulose valves, each having a crown of teeth, spines or membrane; central portion obsolete; lateral view circular."

Stephanopyxis kittoniana, n. sp. (Plate IX. fig. 5.)

Frustulis globoso-cylindricis, lineariter punctulatis, et per apicum coronam inter se connexis. Ad insulas Philippinas.

This organism presents a series of four suborbicular frustules, which are united by means of a corona of capitulate processes, and are granulated or punctated in parallel lines running in the direction of the longitudinal axis of the series. Although some affinities are here presented to the *Cresswellia turgida* of Greville, for example, in general outline

[1] See Gregory, Diatoms of the Clyde, p. 64, pl. vi. fig. 109; Greville, *Micr. Journ.*, vol. vii. pp. 165, 166, pl. viii. figs. 14–16; *Trans. Roy. Soc. Edin.*, vol. xxi. p. 536; Ehrenberg, Die Infusionsthierchen, p. 165; *Monatsber. d. k. Akad. d. Wiss. Berlin*, 1844, p. 264; Mikrogeologie, pl. xviii. fig. 4, pl. xix. 13, fig. 6.

[2] Pritchard, *op. cit.*, p. 826.