London, new series, vol. ix. p. 66, and defined it in the following manner:—"Frustules free, disciform; disc with radiate or scattered cellules or puncta in the middle portion, and a circle of large intramarginal cellules." The genus has hitherto comprised only the two species Heterodictyon rylandsianum, Grev., and Heterodictyon splendidum, Grev., both of which were found by Greville in the Barbados deposit, Cambridge, U.S.A.; but I am of opinion that the former, on account of the corona of large linear or oblong cellules with which it is provided, should be ascribed to the genus Asterolampra, and named Asterolampra vulgaris, Grev., which is from the very same deposit, and of which other six different forms have been given.

Heterodictyon jeffreysianum, n. sp. (Plate XXI. fig. 8.)

Disciforme; medio inordinate cellulosum; subtriangularium areolarum corona submarginali; spatiis intramarginalibus cellulis decrescentibus obsitis. Ad insulas Philippinas.

This new species was collected in the neighbourhood of the Philippine Islands. Though its elegant form might at first sight be mistaken for that of Asterolampra marginata, Grev., it may be readily distinguished from the latter, in which the central part is covered with puncta disposed in radiating lines, by having the sculpturing arranged without order. The corona of large cellules on the submarginal area is composed of subtriangular compartments, two of the angles being blunted at the points of contact with adjoining compartments. The cellules in the intramarginal segments, circumscribed by the submarginal belt, diminish towards the periphery.

The specific name has been given in honour of the well-known English naturalist, Dr Gwyn Jeffreys.

Brightwellia, Ralfs.

This genus was established by Ralfs in honour of the well-known microscopist, Brightwell. The Diatom, which the latter observer had named Craspedodiscus coronatus, was found to differ from the other members of that genus by the possession of a corona of oblong cellules, which separated the central from the peripheral part of the disc, and Ralfs, who first drew attention to this important circumstance, ascribed the frustule to his new

- ¹ Micr. Journ., n. s., vol. iii. p. 66, pl. iv. figs. 6 and 7.
- ² Micr. Journ., n. s., vol. ii. p. 47, pl. vii. figs. 17-22.
- ³ Micr. Journ., n. s., vol. ii. p. 50, pl. viii. fig. 30.
- ⁴ Brightwell on some of the Rarer or Undescribed Species of Diatomaceæ, Micr. Journ., vol. viii. p. 95, pl. v. fig. 6.
- ⁵ Pritchard, op. cit., p. 940. "This species is very variable in size. In a dry state it is of a purplish or brown colour, but in balsam hyaline; the centre has the granules irregular near the umbilicus, and interrupted by blank rays; but near the circlet of cellules they become more regular, and form curved, moniliform lines. The broad himb is usually brownish when dry, and marked by numerous radiating lines similar to those of Coscinodiscus concinnus, and have in the intervals extremely minute obliquely arranged granules. The radiating lines, although conspicuous in the dry state, nearly disappear in balsam."