Subgenus Homæodictya, Ehlers (Pls. XXII., XXIII., XXIV., XXIX.).

1797. Spongia (pars), Esper, Die Pflanzenthiere, Fortsetz. i. p. 190, pl. l.

1842. Halichondria (pars), Johnston, British Sponges, p. 92, pl. ii.

1866. Isodictya (pars), Bowerbank, Mon. Brit. Spong., vol. ii. p. 311; vol. iii. pl. lii.

1867. ,, (pars), Gray, Proc. Zool. Soc. Lond., May 1867, p. 534.

1870. Homwodictya, Ehlers, Die Esper'schen Spongien, Erlangen, 1870, p. 17.

1882. Chalina (pars), Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 111.

Form various, usually lobate or palmate. Megasclera oxea. Microsclera isochelæ, of a very peculiar type. The latter are the characteristic spicules of the subgenus; the shaft is slightly curved and may be expanded all the way along, from end to end, into continuous, delicate, lateral fimbriæ, which may be more or less curved; in other words, the two lateral palms on each side of the spicule may remain united together, and form merely terminal portions of a continuous lateral fimbria. The anterior palm of the spicule is distinct and somewhat oval in shape, usually slightly curved outwards at the free end; from the median line of the posterior surface of each anterior palm there projects backwards, i.e., towards the shaft, a delicate, flat fimbria, pear-shaped in outline; this gives to the anterior palm the appearance of being forked when the spicule is viewed laterally, and is the distinguishing feature of the subgenus (vide Pl. XXIX. fig. 7a).

Although of a very peculiar form, the isochela of *Homæodictya* does not really differ so much from an ordinary isochela as might at first sight be expected. We have only to cut away the central portion of each lateral fimbria (in those cases where it persists), leaving the ends as lateral palms (connected, of course, as usual, with the shaft for their whole length), and to abolish the pear-shaped process which remains adherent to the back of the anterior palm, and probably represents the remains of a connection between the latter and the shaft, and we have left a typical palmate isochela, like that, for example, of *Desmacidon compressa*.¹

The history of this interesting subgenus is not a little involved, and will give some idea of the literary difficulties which the spongologist has to encounter.

Johnston, in his British Sponges (p. 92, pl. ii.) describes and figures a sponge under the name *Halichondria palmata*, and gives in his list of synonyms, "Spongia palmata, Sibb. Scot. ill. ii. lib. iv. 55, &c." With some difficulty we found the book thus referred to, but the only reference we found to sponges consists of the two words "Spongia palmata;" and we can hardly retain this as a synonym on so little evidence.

Bowerbank, in his Monograph of British Spongiadæ (loc. cit.), describes and figures his Isodictya palmata, which he identifies with Halichondria palmata, Johnston. He

² Nuncius Scoto-Britannus, sive Admonitio de Atlante Scotico &c., by Sir Robert Sibbald, Edinburgh, 1683. The book is also known as Scotia illustrata.

¹ Cf. also the descriptions given by Mr. Carter of the isochela of Homwodictya (Chalina) palmata and of Desmacidon compressa, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 111, fig. 1, a and b, and p. 113.