

discotriænes overlying desmas, flattened in a plane parallel to the surface, and also closely articulated.

Palæontologists used to distinguish such basal membranes as "epitheca," and several fossil species of Lithistids could be cited as resembling *Discodermia nucerium* in the presence of this membrane, as well as in the characters of the desmas and canal-system.

### Genus 5. *Heterophymia*, Pomel.

Corallistidæ with separate poriferous and oscular surfaces, which are distinguished by different ectosomal spicules, dichotriænes occurring on the poriferous, and small, smooth, irregularly branched desmas on the oscular surface.

#### *Heterophymia heteroformis* (Bowerbank).

*Coscinospongia heteroformis*, Valenciennes, MS.

*Dactylocalyx heteroformis*, Bowerbank, Proc. Zool. Soc. Lond., p. 85, pl. iv. figs. 1-4, 1869.

*Heterophymia heteroformis*, Pomel, Pal. de l'Oran, p. 143.

" " Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. p. 121, 1878.

*Sponge*.—Sessile, flabellate or foliate, sinuously plicated. Surface slightly undulating, minutely hispid. Oscules on the upper surface, slightly elevated and margined, numerous, irregularly dispersed, 1 mm. in diameter. Pores congregated (in sieves?), porous areas minute, slightly depressed, rarely more than their own diameter apart.

*Spicules*.—I. Megascleres. 1. *Desmas*, similar to those of *Corallistes*. 2. *Dichotriæne*, rhabdome long, curved; cladi short, thick. This spicule is confined to the poriferous surface. 3. *Strongyle*, large.

II. Microsclere (?).

*Colour*.—Dark brown in the dried state. Size, 125 mm. high, 113 mm. broad; wall 8 mm. thick.

*Habitat*.—Shanghai, China; depth (?) (Collection of the Jardin des Plantes).

### Family III. P L E R O M I D Æ.

Genus 2 (?). *Lyidium*, O. Schmidt. *Incertæ sedis*.

#### *Lyidium torquila*, O. Schmidt.

*Lyidium torquila*, O. Schmidt, Spong. Atlant. Gebiet., p. 84, woodcut, 1870.

" " Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. pp. 103, 132, pl. i. fig. 10, 1878.

*Sponge*.—A fragment, probably of a flat plate-like individual, 3 mm. in thickness. Oscules and pores similar, large, 0.5 to 1.0 mm. in diameter, round simple openings of transversely directed canals situated on opposite sides of the plate.