

current canal spaces, and in every transverse section they may be observed to alternate with tolerable regularity.

The dermal skeleton consists of pentacts or hexacts with pronged terminal rays, and in addition to these numerous scopulæ of different forms occur.

The gastral skeleton consists of pentacts or hexacts, which exactly resemble the corresponding dermalia. It also contains in most cases scopulæ like those which are found in the outer skin.

In addition to the parenchymal uncinates, numerous discohexasters occur, more rarely oxyhexasters and sometimes also simple regular hexacts in variable numbers.

1. *Chonelasma lamella*, n. sp. (Pls. LXXXVII., LXXXVIII.).

In the neighbourhood of the Kermadec Islands (Station 170A, lat. 29° 45' S., long. 178° 11' W., 630 fathoms), the trawl brought up some fragments of a plate about the size of a little hand, from 5 to 10 mm. in thickness, and provided with attenuated, smooth, irregularly undulating margins. They are in some places somewhat bent and irregularly thickened, but on the whole they appear tolerably flat. The soft parts are well preserved. The two lateral surfaces exhibit to the naked eye no noteworthy differences. Both sides are covered by a fine delicate porous skin, through which are seen the round openings of the passages, which are about 1 mm. in width, and traverse the plate in alternately opposite directions. The distribution of these transverse canals is not, indeed, quite regular, yet the general arrangement of the rectangularly crossed longitudinal and transverse rows cannot be mistaken.

The two sides of the other macerated specimen are represented, from a photograph, in their natural size, on Pl. LXXXVII. figs. 1 and 2. They exhibit a slightly bent, but otherwise smooth macerated plate of 3.5 mm. in thickness, which was obtained at Station 148A (lat. 46° 53' S., long. 51° 52' E.), from a depth of 550 fathoms on hard ground, while the skeletal fragment figured on Pl. XC. figs. 9, 10, and 11, in natural size, which was dredged at Station 56 (lat. 32° 8' 45" N., long. 64° 59' 35" W.), from a depth of 1075 fathoms on Coral mud, appears to belong to the same species.

The macerated dictyonal framework exhibits notable variations in the different regions of the plate. While the beams in the neighbourhood of the two surfaces form a tolerably narrow-meshed, and somewhat irregular framework, which surrounds the wide round openings of the funnel-shaped transverse canals, the middle portion of the plate exhibits a regular system of perfectly square or rectangular meshes (Pl. LXXXVIII. fig. 1). Since these rectangular meshes in the middle layer are much wider than the meshes in the neighbourhood of the two bounding surfaces, and since the middle framework consists of beams, which are not only longer but thinner than those on the surfaces, it is easy to understand how this middle layer may readily break, and