The efferent canals are surrounded by medium-sized, sharply defined thimble-like chambers, with their blind ends all turned towards the afferent canals and the sub-dermal space. They are, indeed, surrounded by the loose trabecular framework, which extends between them and the dermal membrane, and by the subdermal spaces, as well as by the afferent canals which traverse the framework without being always sharply defined from it. It is noteworthy that the chamber membrane is often so penetrated by the small parenchymal oxyhexasters that some rays of the latter project for a greater or less distance into the lumen of the chamber. On the outer wall of the chambers one frequently observes those groups of small cells which have been already several times discussed.

2. Chonelasma hamatum, n. sp. (Pl. XCI.).

In the locality in which the large plates of Chonelasma lamella were trawled (Station 170A, lat. 29° 45′ S., long. 178° 11′ W., in a depth of 630 fathoms, on volcanic mud), there was also found the smaller plate figured in its natural size on Pl. XCI. fig. 1. This is bounded by an irregularly undulating surface, and is only about 3 mm. in thickness, while it is provided with a thin rounded margin. Apart from some slight curvatures this plate also in general forms a flat expansion, and appears to have been firmly attached by the narrow extremity.

The structure of the tolerably regular dictyonal framework agrees essentially with that of Chonelasma lamella. The meshes are, however, narrower and are not markedly wider in the middle layer of the plate than near the surfaces. The tuberculation on the surface of the tolerably strong network of beams is not uniform throughout. In some parts it is very pronounced, in others it is almost entirely absent, with the exception of the projecting pegs. Small tubercled hexacts occur very regularly and are transversely or obliquely soldered to the regularly formed framework of beams.

The alternating funnel-shaped canals, which traverse the plate, opening on the one side and terminating blindly on the other, have a maximum width of 0.5 mm.

The dermal skeleton consists of hexacts, each of which has a short distal ray, provided with a slightly knob-shaped thickening and densely beset with tubercles, while their four cruciate, long, straight, transverse rays and the still larger proximal ray are smooth at the base, but rough at the pointed extremities (Pl. XCI. figs. 2, 5). In addition to these dermal hexacts, scopulæ of various forms occur, in which the stalk is provided with a rough pointed or rounded internal terminal portion, while the expanded outer extremity exhibits, close beneath the teeth, an annular thickening or four cruciately disposed archings, or else gradually passes into the bases of the teeth. I have never been able to determine more clearly than in this thickening beneath the teeth an intersection of the principal canal by two short transverse canals disposed at right angles to it. These transverse canals do not, however, pass into the teeth, but remain straight and