

terminate in the circular swelling or in one of the four tubercles, while the prolongation of the principal canal is likewise straight, and terminates close beneath the teeth. Hence I am of opinion that I can with certainty exclude the view that the teeth are to be regarded as curved principal rays, and maintain the opinion that they are terminal rays of a greatly shortened radial principal. These terminal rays are as a rule rough and straight, and provided with terminal knobs. There are usually four, but three may also occur. Exceptionally an S-shaped curvature occurs, as on Pl. XCI. fig. 4.

The gastralia are so essentially similar in form and position to the dermalia that no special description is required. I may simply refer to Pl. XCI. fig. 2.

In the parenchyma tolerably regular uncinates of various dimensions occur in great numbers, but extend usually only through half the thickness of the plate. They are all disposed at right angles to the surface. In the uncinates occurring near the dermal surface all the barbs have their points towards the gastral side, while in the uncinates which lie closer to the gastral side, the points of the barbs are turned round and directed towards the dermal surface. On both surfaces therefore the uncinates would on gentle motion project outwards from the sponge body. The numerous small hexacts, which are for the most part fused to the dictyonal framework, but partly also occur free in the soft tissue, are provided with pointed tubercles, and each of the rays is obliquely pointed at the extremity. Moreover many elegant discohexasters also occur in the parenchyma, and exhibit various forms. Very frequently small rosettes, such as are figured on Pl. XCI. fig. 6, occur, and each of the moderately short basal rays bears four, five, or six terminals, which are curved in an S-like manner like petals, and knobbed or provided with terminal discs. More rarely forms occur in which the basal rays are somewhat longer and more slender, and are united in a spherical central knot. These bear on their outer extremities from three to four very fine long terminal rays with terminal discs. Whether the rosettes with long rough basal rays, which are represented on Pl. XCI. fig. 7, and which I found here and there in preparations of *Chonelasma hamatum* really belong to this species and are not merely intrusions, I have lately seen reason to doubt. In any case, however, should they really belong to this sponge, they are of very rare occurrence.

The structure of the soft parts differs from that described in *Chonelasma lamella* at most in the greater simplicity of the straight afferent and efferent canals which traverse the plate at right angles (Pl. XCI. fig. 2).

3. *Chonelasma dæderleinii*, n. sp. (Pl. XC. figs. 1-7).

Among the Hexactinellida which were collected by Dr. Döderlein in the Sagami Bay (Japan) there are some irregularly bent plates from 2 to 3 mm. in thickness which are preserved in the dry state. These are provided with a thin undulating margin, are from 2 to 3 cm. in breadth, from 4 to 5 cm. in height, and without doubt were attached to a solid