

clear maltha, in which the framework of the spongin-fibrillæ is imbedded. These are very thin and fine (for the most part between 0.001 and 0.003 mm. in diameter), exhibit a distinct medullar thread or axial canal, and are densely interwoven in all directions. The main support of the body is formed by the network of the symbiotic Hydroid, which is expanded in the medullar substance of the sponge.

*Stannarium concretum*, n. sp. (Pl. III. figs. 10-14).

*Habitat.*—Central Pacific, Station 270; September 4, 1875; lat. 2° 34' N., long. 149° 9' W.; depth, 2925 fathoms; bottom, Globigerina ooze.

Sponge rather flabby, with several vertical foliaceous wings, which are grown together and surround one or more funnel-shaped cavities. Skeleton composed mainly of Globigerina ooze.

*Stannarium concretum* has a peculiar appearance, produced by the coalescence of the irregular lateral wings, which arise vertically from the two sides of the primary leaf (*Stannophyllum*). Usually there are between four and eight wings of different sizes, and these grow together with their faces touching in such a manner, that one or more infundibular cavities are formed between them. A subregular form, of rather firm consistence, is shown in figs. 10-12, where four vertical wings are so crossed that they form together a four-sided pyramid with four prominent edges, and a funnel-shaped central cavity at the top (fig. 11). Two opposite wings of these four represent the primary leaf; the other two, also opposite to one another, arise from the median line of the two parallel faces of the former; their separate roots growing together with the former enclose the pyramidal central cavity. Another specimen of very flabby consistence is composed of eight irregular vertical wings, four larger and four smaller (fig. 13 from above, fig. 14 from one side). The thickness of these leaves is between 2 and 4 mm., the diameter of the whole sponge between 20 and 50 mm.

*Skeleton.*—The surface of the leaf is in this species far more coarse and granular than in the preceding, and the consistence softer and flabbier. This is produced by the different composition of the skeleton, in which a great quantity of calcareous Globigerina ooze is mixed with the siliceous Radiolarian remains. Sometimes the former predominates. *Globigerina* shells and their fragments compose mainly the two parallel dermal plates, while in the soft medullar mass between them they are intermingled in different degrees with Radiolarian shells. The greater the proportion of Globigerina ooze, the more unequal become the spongin-fibrillæ of the skeleton, very coarse ones (0.006 to 0.008 mm. in diameter and more) being intermingled with finer ones (0.002 to 0.004 mm. or less); they are interwoven irregularly in all directions. Between this felty mass and the xenophya, surrounded by the fibrillæ-bundles, there is expanded the network of the symbiotic Hydroid.