

fibre. The fibre contains but little horny matter, is usually polyspiculous, and is abundantly echinated, especially at the angles of the meshes, by tufts of outwardly projecting spicules. The meshes are small, averaging only about 0·14 mm. in diameter. (b) *Main*; a very regular, well-developed, rectangularly-meshed reticulation of strong spiculo-fibre; the primary lines running vertically to the surface, and the secondary ones crossing them at right angles (Pl. XLVI. fig. 6). The fibre is polyspiculous (the primary lines containing more spicules than the secondary), but though the spicules form a large proportion of its bulk, there is a great amount of horny matter present which completely envelops them; thickness of fibre up to about 0·06 mm.

*Spicules*.—Short, stout, slightly curved, sharply but very abruptly pointed oxea; size about 0·088 by 0·009 mm.

The external appearance, the form and size of the spicules, and the great regularity of the rectangular skeleton, are characters by which this sponge may be recognised. Indeed, it is an unusually well-marked species. It differs from most Chalinine sponges in the comparatively small proportion of horny matter in the spiculo-fibre, and is the only known strictly encrusting species of the subfamily, although in their low crouching growth, as well as in the skeleton arrangement and size of the spicules, *Chalina finitima* of Schmidt and *Chalina limbata* of Bowerbank make an approach to it.

*Locality*.—Station 208, January 17, 1875; lat. 11° 37' N., long. 123° 31' E.; Philippine Islands; depth, 18 fathoms; bottom, blue mud. One specimen.

#### *Chalina* sp. (a).

A small fragment composed of short, cylindrical branches, about 4 mm. in diameter, which we have been able to refer to no species known to us, and which is too imperfect to render a recognisable specific description possible. It is characterised by a beautifully reticulate surface, the fibres of the reticulation, as seen by the naked eye, standing out as delicate raised veins, the meshes being triangular. On microscopical examination, the meshes of this coarser reticulation are seen to be subdivided by much finer fibres into a number of very small secondary meshes. The coarser fibres of the dermal reticulation measure about 0·05 mm. in thickness, and contain a great many spicules; the smaller ones are usually only one spicule broad. The larger fibres of the main skeleton measure about 0·07 mm. in thickness. The spicules are very small and slender, slightly curved oxea, measuring about 0·1 by 0·004 mm.

*Locality*.—Cape York, Torres Strait; 3 to 11 fathoms.

#### *Chalina* sp. (b).

A single compressedly lobate specimen, 75 mm. in height by 25 mm. in breadth near the top, and about 12 mm. thick. *Colour* in spirit dirty yellow. *Texture*