rounded off at the end; cladi simple, diverging almost at right angles from the rhabdome, conical, sharply pointed. Rhabdome 2·18 by 0·055 mm., cladi 0·238 to 0·318 mm. long.

4. *Anatriæne* (Pl. XIV. fig. 4), rhabdome stout, conical, much attenuated proximally, either exceedingly sharply pointed or rounded off at the end, cladi long, conical, sharply pointed, proceeding for a very short distance approximately at right angles to the rhabdome, and for the rest of their course recurved nearly parallel with it. Rhabdome 3·03 by 0·035 mm., cladi 0·16 mm. long; sagitta 0·16 mm., chord 0·16 mm.; thickness of cladome 0·0478.

II. Microsclere. 5. *Chiaster* (Pl. XIV. figs. 5, 6), no perceptible centrum; actines very slender, rod-like, tylote, few in number, commonly from three to seven, 0·016 mm. in diameter.

Colour.—Grey.

Habitat.—Samboangan, Philippine Islands; depth, 10 fathoms.

Remarks.—The single specimen of this sponge measures about 27 mm. in height and breadth; the oscule measures 4 mm. in diameter, and leads into a cloaca about 6 mm. deep; it is almost concealed by foreign bodies, which are attached by strong fibrous bands growing out from the cortex. The pores, from 0·015 to 0·06 mm. in diameter, open into chones of about 0·4 mm. in average diameter. The chones in their course through the cortex are crossed by several velar diaphragms, and continue by unconstricted apertures into the large incurrent canals of the choanosome.

Ectosome.—The cortex, about 0·8 to 0·95 mm. in average thickness, presents, as seen under a 1-inch objective, two well-marked and contrasted layers, the inner consisting of the deeply stained fibrous tissue usual in this position; and the outer, 0·32 mm. in thickness, of pale, unstained, polygonal cells, amidst which are embedded in places, sharply defined, rounded balls or clusters, from 0·06 to 0·22 mm. in diameter, of deeply stained polygonal cells.

Under a higher magnification one makes out the following details. Beneath the outer epithelium (Pl. XIV. fig. 7) is a layer from 0·02 to 0·04 mm. thick, consisting of collenchyme traversed by numerous, tangentially disposed, small, fusiform cells about 0·04 mm. in length. Beneath this follows the layer of pale granular cells just alluded to; these are now found to lie in oval cavities in a collenchymatous matrix, each in its own cavity, which in the living state it probably completely filled. Although, owing to the abundance of these cells, the collenchyme is reduced to a mere intercellular network, it still retains its characteristic stellate collencytes, the branching processes of which, as they stain deeply, can be clearly traced extending through the partitions between adjacent granular cells. Long slender fusiform cells also extend through this tissue, sometimes singly and sometimes in fibrous strands. The granular cells of this curiously modified collenchyme are polygonal or irregular in outline, about 0·012 mm. in diameter, with a