Spicules.—Large, stout, fusiform oxea (Pl. II. fig. 9), curved, and gradually and fairly sharply pointed; size about 0·45 by 0·028 mm.

This species is at once distinguishable from all others of the genus by its external form and its characteristic chitinous envelope (hence the specific name). The size and shape of the spicules are also very characteristic. In the presence of an external chitinous membrane it resembles *Rhizochalina fistulosa*. Like the preceding species, it has a great general resemblance to *Petrosia*, but, on the other hand, the skeleton arrangement shows some approach to the rectangular character of *Reniera*; but as the dermis is subreticulate, and the spicule is a large tapering oxeote, it seemed best to regard it as a decidedly aberrant member of the genus *Halichondria*.

Locality.—Amboina; depth, 100 fathoms. One specimen.

Halichondria latrunculioides, Ridley and Dendy (Pl. I. figs. 5, 5*a*; Pl. II. fig. 1; Pl. XLVI. fig. 5).

1886. *Halichondria latrunculioides*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 326.

Sponge erect, lobose; two out of the three specimens collected are pear-shaped, and have apparently been attached by the narrow end to the substratum on which they grew. The third specimen, which is the largest, is lobose and compressed in a vertical plane; it has a much constricted base, by which it has evidently been attached. The largest specimen measures 44 mm. in height, by 72 mm. in greatest breadth, and about 12 mm. in average thickness; the larger of the two pear-shaped specimens measures 50 mm. in height by 27 mm. in diameter near the top. *Colour* in spirit light grey. *Texture* rather soft and spongy internally. *Surface* uneven, deeply corrugated, but glabrous; with numerous large, round or oval, flat, sieve-like pore-areas, elevated above the general surface of the sponge, and constituting by far the most important character of the species (Pl. I. fig. 5, *p.a.*, and fig. 5*a*). *Dermal membrane* forming (except in the pore-areas), together with its supporting layer of spicules, a thickish, parchment-like crust, readily separable from the underlying tissues. In the pore-areas, on the other hand, the dermal membrane is very thin, delicate, and transparent, and reduced to a mere sieve by the very numerous pores. *Oscula* at the summits of conical projections of the parchment-like dermal membrane at the top of the sponge (Pl. I. fig. 5, *o*). *Pores* almost entirely confined to the pore-areas (Pl. I. fig. 5*a*); we have, however, detected a few in gaps in the almost continuous dermal skeleton.

Skeleton.—(*a*) *Dermal*; a very dense, in most parts perfectly continuous layer of large oxeote spicules laid horizontally side by side (Pl. XLVI. fig. 5). (*b*) *Main*; loose, composed of rather irregularly arranged spiculo-fibre; the fibre itself is often fairly stout, but not very definite or compact.