(2.) Lepralia japonica, n. sp. (Pl. XVII. fig. 5).

Character.—Zoarium thick, unattached, covered with a rather thick, yellowish-brown, opaque chitinous epitheca. Zoœcia, in front, pyriform, broadly truncate below, slightly convex or tumid. Surface beneath the epitheca sparsely but uniformly punctured. Orifice somewhat immersed, arched; lower lip nearly straight, entire. On the dorsal aspect the zoœcia are quadrilateral and nearly square; surface punctured. Interzoœcial wall with numerous pores or plates. Oœcia inapparent. Zoœcia about 0"·05 × ·025. Orifice 0"·01.

Habitat.—Cobie, Japan, 8 to 50 fathoms.

(3) Lepralia tuberosa, n. sp. (Pl. XVII. fig. 7).

Character.—Zoarium very thick and coarse-looking, attached by long radical tubes springing from the back of the zoecia. Zoecia viewed in front broadly oval or arched above and much contracted below the middle. Convex, separated by moderately deep sulci; obscurely punctured round the border and at the base of the tuberosity. Orifice orbicular with three small points on the lower lip. Operculum rounded or arched above and contracted at the lower part, with a projecting point on either side (continuations of the marginal rim); with a crescentic, transverse, punctured and bordered area, and several faint longitudinal rugæ, the membrane very finely punctured all over. Peristome very thick, supporting on each side towards the front a small circular, slightly elevated avicularium (with a short duck-bill shaped mandible); four strong articulated oral spines above. On the front of the zoœcium, when mature, a very large conical hollow protuberance or tuberosity supporting one or several avicularia on the sides and near the summit (but not on it). These avicularia differ in size and direction, but all have a short, broad, rounded mandible. In the older zoecia, besides the enormously developed main tuberosity, several others appear, all supporting similar avicularia. the dorsal aspect the zoœcia appear more or less hexagonal, with an acute angle at the top The surface is punctured, and presents a large subclithridiate aperture from and bottom. which a long cylindrical chitinous radical tube issues. Orifice about 0".01 wide.

Habitat.—Station 163B, off Port Jackson, 35 fathoms, hard ground.

(4) Lepralia dorsiporosa, n. sp. (Pl. XVIII. fig. 4).

Character.—Zoarium thick, epitheca white. Zoecia elongated, hexagonal in front, and separated by thin raised septa; a small triangular notch or fold in the centre above the orifice; behind, the zoecia are broadly ovate. Anterior surface flat but