

Locality.—Station 177, off the New Hebrides; lat. $16^{\circ} 45'$ S., long. $168^{\circ} 7'$ E.; depth, 63 to 130 fathoms.

Lictorella cyathifera attains a height of about two inches. The main stem is stout and strongly perisiphonic towards the base, the principal branches are similarly perisiphonic, and the whole colony is characterised by a peculiarly rigid habit.

The hydrothecæ, while pinnately disposed and exactly alternate, have their axes slightly directed towards one side of the ramulus. The rim is perfectly circular, even, and very slightly everted.

Most of the hydrothecæ exhibit just behind the rim one or two delicate annular striæ, indicative of successive periods of growth. The hydrothecæ-bearing ramuli present no distinct joints, and thus show no division into internodes.

Lictorella cyathifera comes very near to *Lictorella halecioides* of the present Report, which I have identified with *Lafoëa halecioides* of the "Porcupine" collection.

Lictorella halecioides, however, is altogether a larger and stronger species, while its ultimate ramuli are intersected by distinct though not exactly equidistant joints, and the hydrothecæ are narrower in proportion to their height, and have their peduncles jointed.

The two species, however, undoubtedly come very near to one another, and the wide distribution of a type of form, the variation of which is so slight as to be almost within the limits of mere varietal distinction, is exceedingly interesting. *Lictorella halecioides*, as represented by the examples dredged by the "Porcupine," was obtained from the cold area which lies between Shetland and the Færøe Islands, from depths of 640 and 345 fathoms, with a bottom temperature of 36° F.; the Challenger examples of the same species were dredged off Cape York, Torres Strait, from a depth of from 8 to 12 fathoms; while the station of *Lictorella cyathifera* lies off the New Hebrides, where it was dredged from depths of from 63 to 130 fathoms.

Cryptolaria, Busk.

Cryptolaria, Busk, Quart. Journ. Micr. Sci., ser. 1, vol. v. p. 173, 1857

Generic Character. Trophosome.—Hydrocaulus consisting of two parts, an axial and a peripheral, the peripheral consisting of a fascicle of simple tubes, the axial of a single tube, simple or branched, whose proximal portion lies under cover of the peripheral, and whose distal portion is free. Hydrothecæ borne both by the covered and the free portions of the axial tube, tubiform, destitute of peduncles, with the cavity directly continuous with that of the axial tube, and with their walls never adnate to the axile tube, where this is covered by the peripheral fascicle, but more or less adnate to the tube in the free portion of its course.

Gonosome.—Gonangia consisting of sac-like receptacles, which spring at intervals