Leucandra fistulosa, H. *
Grantia fistulosa, J.
Leuconia fistulosa, Bk.

L. M. B. C., No. 85. 16. Collected at Port Erin, Isle of Man.

Family.—Sycones.

Sycandra compressa, H.
Grantia compressa, Fleming.

This is a very easily recognised species from its hollow compressed form; it is found in quantity all round our coasts attached to seaweed. It is well figured both by Haeckel and Bowerbank.†

L. M. B. C., No. 85.17. Collected at Port Erin, Isle of Man.

L. F. M., No. 22. 4. 74. 2. Collected at Holyhead.

Sycandra ciliata, H. ‡
Grantia ciliata, H.

L. M. B. C., No. 85. 18. Collected at Port Erin, Isle of Man.

L. F. M., No. 22. 4. 74. 4. Collected at Holyhead.

DESCRIPTION OF A NEW SPECIES BY H. J. CARTER, F.R.S.

Aphroceras ramosa, n.sp.

Small, cylindrical, branched, sessile; branchlets more or less acuminated, horn-shaped; without peristome. Colour whitish-yellow. Surface even, consisting of long, large, fusiform acerates arranged parallel to each other and closely

* *Mon. Brit. Spong.*, vol. ii, p. 39; vol. iii, pl. v, figs. 9–16. *Die Kalkschwämme*, Haeckel, vol. ii, p. 197; vol. iii, pl. 31.

† *Mon. Brit. Spong.*, vol. ii, p. 17; vol. iii, pl. i. *Die Kalkschwämme*, vol. ii, p. 360; vol. iii, taf. 57.

‡ *Mon. Brit. Spong.*, vol. ii, p. 19; vol. iii, pl. ii, figs. 1–15. *Die Kalkschwämme*, vol. ii, p. 296; vol. iii, taf. 58, fig. 9.

approximated, on the same plane, more or less covered by small sagittiform triradiates. Pores situated in the interstices between the arms of the triradiates, along the intervals of the large acerates. Vent single, at the end of each branch, naked, *i.e.*, without peristome; leading into a cylindrical, cloacal cavity, about the same shape as the sponge, and equally branched; presenting on its surface a great number of circular holes in juxtaposition, rendered more or less polygonal by the intercrossing of the rays of the radiates that form the skeletal structure of the cloaca, which is sparsely echinated by the fourth ray of the quadriradiates. Wall consisting of simple, cancellated sarcode, traversed horizontally, at intervals, by the shafts of large, sagittiform triradiates which, coming from opposite sides and overlapping each other, have their heads in the internal surface of the cortex and that of the cloaca respectively.

Spicules of three kinds, viz., acerate, triradiate, and quadriradiate. 1st, acerate, very large, long, fusiform, slightly curved, and often lance-pointed anteriorly, averaging $\frac{1}{9}$th inch long by $\frac{1}{2\frac{1}{2}\frac{1}{7}}$th inch in its greatest transverse diameter; 2nd, triradiates, small and large, the latter averaging $\frac{1}{1\frac{1}{8}\frac{8}{0}\frac{}{0}}$ by $\frac{1}{1\frac{1}{8}\frac{1}{0}\frac{}{0}}$th inch in the shaft, and the arms respectively $\frac{2}{3}$rds of this size; 3rd, quadriradiates, of the same size as the large triradiates, with the addition of the fourth arm which is short and curved, about $\frac{3}{1\frac{1}{8}\frac{}{0}\frac{}{0}}$ths inch long. No. 1 is confined to the surface with the arrangement before stated; No. 2 in its larger form, to the wall, also as above stated; and the smallest, which are chiefly sagittiform, to the outer and inner surfaces; No. 3 to the inner part of the cloaca, where they are formed by the addition of the fourth arm to the heads of the large triradiates of the wall which abut against this part; thence projecting into the cavity of the cloaca. Size of specimen, which is much broken, under $\frac{1}{1\frac{1}{2}}$th inch in the diameter of the stem; length unknown; longest

fragment $\frac{8}{12}$ths of an inch; thickness of the wall, including the cortex and the cloaca, about $\frac{1}{5}$th inch.

L. F. M., No. 22. 4. 74. 7. Collected at Holyhead.

This species in spiculation is very much like *Leucogypsia gossei*, Bowerbank, who, when he made a genus of it under the name of "*Leucogypsia*" in 1862 (*Phil. Trans.*, p. 1095), stated that he had not seen another species in Great Britain. In 1858, Dr. J. E. Gray described and illustrated a cylindrical branched species from Hong Kong, to which he gave the name of *Aphroceras alcicornis* (*Proc. Zool. Soc.*, Lond., p. 114, pl. x, figs. 1 and 2), and in 1867 (*Ib.*, p. 558) he made a family for it under the name of "Aphrocerasidæ." This species is closely allied in form to that discovered by Mr. Higgin, but differs greatly in structure; while the structure of *A. alcicornis* is almost identical with that of *Leucogypsia gossei*, hence Haeckel has placed them among his Leucones; but the structure of *Aphroceras ramosa* is Syconid, and belongs to a genus which I have named "*Heteropia*" in my forthcoming description of the Calcareous Sponges from the neighbourhood of Port Phillip Heads, S. Australia, sent to me by Mr. Bracebridge Wilson; meanwhile, Haeckel's illustration of the "Radial-tuben," in his *Sycilla cylindrus*, represents it well (*Die Kalkschwämme*, Atlas, taf. 43, fig. 6).

Note.—A species of *Sycandra*, probably new to science, was also dredged near Port Erin, Isle of Man. It has been examined by Mr. Harvey Gibson, and his description and figures will be found further on in this volume.—Ed.