

lustre. The convex surface bears low volcano-like oscula, disposed at approximately equal distances one from another; their diameter does not exceed 0.4 mm., usually being still less. The concave surface may be compared to a sieve, its pores, inconspicuous to the naked eye, are found under the microscope to be round and disposed close together; their average diameter is 0.06 mm. (Pl. IX. fig. 3). The walls of the calyx, 3 mm. to 4 mm. thick near the centre, grow gradually thinner to its free blade-like margin.

The species is represented in the collection by two complete specimens, one young, 7 mm. broad, 4.5 mm. high, with but few oscula; the other of considerably larger size (the longer diameter of the calyx 35 mm., the shorter 22 mm., the height 20 mm.), and by a fragment belonging apparently to a specimen of still larger dimensions. The larger complete specimen is represented on Pl. II. fig. 7.

The internal organisation (Pl. IX. fig. 1) does not differ from that of *Leuconidæ*.

Skeleton.—The skeleton of the sieve-like surface consists of sagittal triradiate and minute acerate spicules; that of the parenchyma of large regular, often sagittal triradiate, and of minute acerate spicules; that of the convex oscular surface of large acerate and subdermal triradiate; that of the oscula themselves of an exterior layer of large acerate, of a middle layer of sagittal triradiate, of an inner layer of quadriradiate, and of minute acerate spicules, supporting the ring-like border at the external opening of the osculum (Pl. IX. fig. 2). The minute acerate spicules are in all parts of the body of the Sponge of the same outline.

Minute acerate spicules.—The most typical variations are given on Pl. X. fig. 10. Usually 0.05 mm. long, with a diameter of 0.0025 mm.

Triradiate spicules of the sieve-like surface.—Sagittal; all rays lying in the same plane, of the same diameter, tapering from the base to approximately sharp points; lateral rays curved forwards, slightly undulating, each forming with basal ray an angle varying from 115° to 120°, reaching 0.75 mm. in length (usually not longer than 0.5 mm., often still shorter), the proportion between the length and the thickness being 15:1; basal ray straight, length inconstant, either rather exceeding that of lateral rays or equal to it, or even shorter.

Triradiate spicules of the parenchyma.—Regular, with pronounced inclination to sagittal differentiation by the shortening of basal ray; all rays of the same diameter, the proportion between their length and thickness varying (in lateral rays) from 10:1 to 12:1; lateral rays smooth, tapering from the base to sharp points; basal ray, if not shortened, also sharp-pointed, if shortened, often truncated, in both cases, however, of conical form; size extremely inconstant, the length varying (in lateral rays) from 0.15 mm. to 1.8 mm. In two cases I found these triradiate spicules showing a rudimentary fourth apical ray.

Subdermal triradiate spicules of the convex surface.—Sagittal; all rays lying in the same plane; basal ray straight, tapering from the base to a sharp point, $\frac{1}{2}$ – $\frac{3}{4}$ as thick as lateral rays and either longer than these latter (not more than twice, however), or of the same length, or even shorter, forming with each of them an angle varying from 110° to 115°; lateral rays either straight, or slightly curved, average length 0.6 mm., the proportion between