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Passing Visits to the Rice Lake, Humber River, Grenadier's Pond, and the Island.

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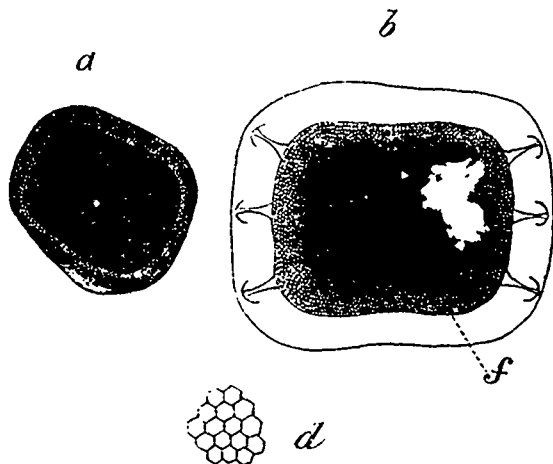
(Specimens exhibited before the Canadian Institute, Dec. 17th, 1854.)

We devoted one fine morning to a hasty visit to Rice Lake to fish: we spent about three hours there, and on our return we directed our attention to collecting things microscopical.

A gentleman, who accompanied us, had long resided at the Lake, and described a peculiar jelly-looking substance which he had seen on a submerged stick, and undertook to row us to the very spot; he did so, and introduced us to a magnificent Polypidom of Plumatella! It measures eight inches by five inches, and necessarily contains many thousands of Polypes.

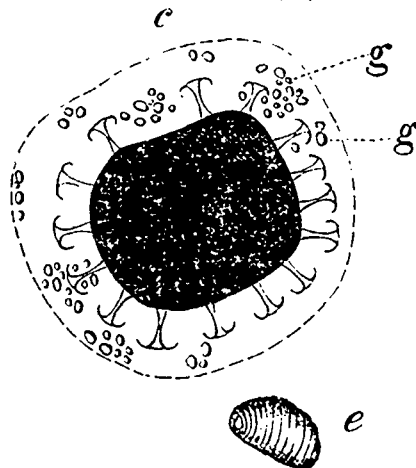
The Plumatella is a Bryozoon, or Ciliobranchiate Polype, that is to say its tentacles, or arms, are covered with vibratile cilia. Not being provided with a microscope, we could not make an examination on the spot, but had to convey the specimen home to Toronto; and here, even, circumstances prevented us working at it until nearly too late, as the animals died, and almost immediately decomposed. From what we did see, however, there is some reason to conclude that this species differs from the European animal, not merely in the form of the cells, but in the animal itself, which is certainly larger, and appears to possess a much greater number of tentacles.

In making microscopical examinations of thin slices of this Polypidom, we were struck with the appearance of a great number of bodies such as represented at *a*, and for some time we necessarily concluded that we were gazing upon the ova of the Polype, in various stages of development, as shewn at *b* and *c*, in the same figure. The central mass is entirely, and densely dark, while the narrow, somewhat transparent margin seen at *a*, is remarkably cellular, being composed entirely of hexagonal cells, of much regularity in their form and size (*d*). These cells are again seen in *b*, at *f*, where, also,



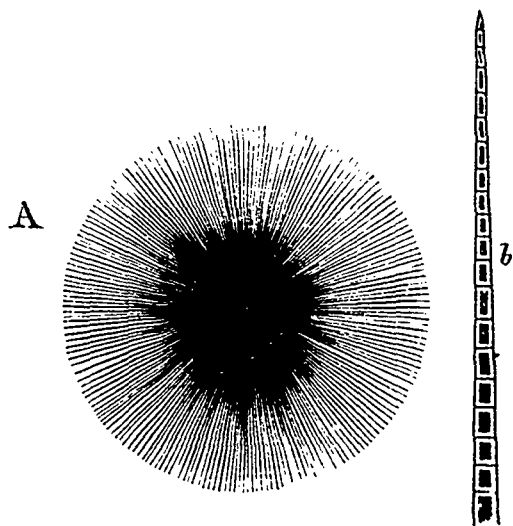
we see developed six hooks—three at either end; at *c*, the hooks appear to have attained their maximum development. In examining the specimens by *direct light*, (as opaque objects),

the cells are seen to be continuous over the entire surface. The presence of *cells* offers no objection to the animality of these bodies, whilst the *hooks* remind one so forcibly of the ovum of *Cristatella mucedo*, (a fresh water polype) as figured by the late Sir J. G. Dalyell, Bart., Raspail, Cornelius Varley, that it left little doubt these were the indubitable ova of the Plumatella, when, presently, several of the mature bodies appeared, their surface being more or less covered with *corpuscles of starch*, as shewn at *g. g.* in *c*—this was at



once conclusive of their *vegetable* character, and they necessarily resolve themselves into a new species of *Xanthidium*. An enlarged corpuscle of starch is shewn at *c*.

As compared with all other known species of *Xanthidia*, these are remarkable for the possession of a membrane, of inconceivable transparency and delicacy *beyond the hooks*, and, it is just possible that other species, if seen in a sufficiently fresh state, would also present a membrane of like tenuity; altogether, one cannot but regard these specimens as throwing much light on the true structure and affinities of such bodies in general, whose history has been hitherto involved in much obscurity.



In visiting the Humber Bay a new order of beauties awaited us, in the form of very minute (microscopical) algæ. A represents one of these singularly beautiful plants, which