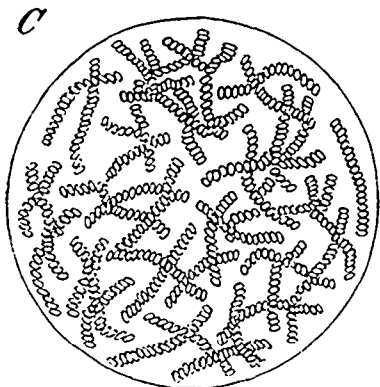


is parasitic upon the stems and leaves of other plants, decayed wood, &c. In shape it is perfectly circular, composed, apparently of radii from the centre to the circumference; the plant is beautifully and intensely green.

The element of this plant, as analyzed by much higher magnifying power is shewn at *b*, it consists of a number of cells, each one being nearly square, and containing a dense, square shaped nucleus—the series of cells taper up to an exceedingly fine point (*b*).

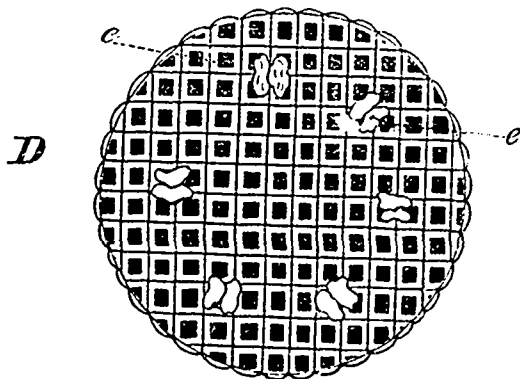
It is worthy of remark, that Dr. Leidy, of Philadelphia, has described, in a paper entitled "The flora and fauna within Animals," and published by the Smithsonian Institution, a plant very much resembling this, as having been found by him in the stomach of one species of *Julus*, which is a vegetable feeder; and as we find the plant existing in great abundance, we cannot but think that, so far from constituting a parasitical growth in the creatures stomach, that it had simply conveyed the specimens found, into its interior, as its legitimate food.

We found, also, a very singular plant perfectly spherical, and in that form we could gain no idea of its structure; on making a section of it, it presented the appearance represented at *C*,—



being composed of isolated strings of cells, which crossed each other in all directions. These cells are beautifully green, and contrast favourably with the remarkably diaphanous ground on which they are placed: one cannot at all see how these strings of cells are connected together, there is no appearance of membrane, and yet a definite form is given to the mass—doubtless, the very transparent something is the *collenchyma*, described by Mohl and Henfrey.

There is some doubt whether this be a perfect plant; that the former specimen is so, admits of no doubt, as its surface was covered with sporangia.

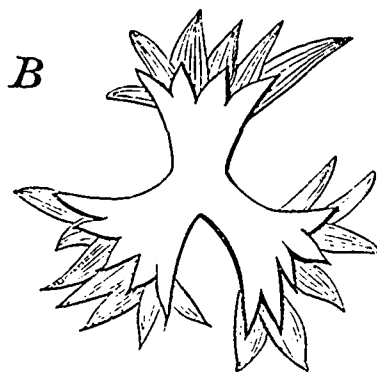


Another alga remains to be described; it is seen at *D*, and is as beautiful as its predecessors. The entire plant is discoid, such as represented; no section, or manipulation of any kind has been attempted here. It will be seen that the entire surface is divided into a series of square cells, each one containing a nucleus of densely coloured green matter—the regularity of these cells is very remarkable. That this is a perfect plant is evidenced by the sporangia shewn at *e*, *e*, which are really much more numerous on the original, than represented in the figure.

To the best of our belief, this and the preceding plants are entirely new, not having been described by any one so far as we know.

From the Grenadier's pond we obtained a beautiful specimen of *Conferva in conjugation*, (*zygnema quinimum*?) which latter fact gives it a sole claim to notice here. The cells of chlorophyll have been aggregated in the upper cells, and passed by the connecting tubes, developed for the purpose, into the lower series of cells which belong to the other plant, in which they appear as rounded masses.

This process accomplished, the inosculating lips part, and each plant walks away whither it will; it is most probable that the upper exhausted tubes are left to perish, whilst the development of new growths takes place from the fecundated lower cells.



Many specimens of *Spongia-fluviatilis* we found, and amongst them a new species, if we may judge from the form of the siliceous spiculae. *B* is a figure of a spiculum, remarkable for its tri-radiate character.

From a pond on the Island we obtained a *Conferva*, of singular minuteness, also caught in the act of conjugation, but the period is a very important one, namely, the large masses of chlorophyll are seen in transitu—tightly wedged in the tube which, for the present, connects the two plants.

The Island of Barbadoes is remarkable for the possession of a Chalk containing a very large per centage of the (presumed) loricae of extinct animalcules. Their size is (microscopically speaking) colossal, and they exhibit forms not found any where else in the known world. A figure of one of them, resembling a jar with a lid to it, is shewn at *A*.