kind from the coal-formation of Nova Scotia, which is described in "Acadian Geology" * (Fig. 12).

I have referred to these facts here because they are relatively more important in that older period, which may be named the age of Algæ, and because their settlement now will enable us to dispense with discussions of this kind further on. The able memoirs of Nathorst and Williamson should be studied by those who desire further information.

But it may be asked, "Are there no real examples of fossil Algæ?" I believe there are many such, but the difficulty is to distinguish them. Confining ourselves to the older rocks, the following may be noted:

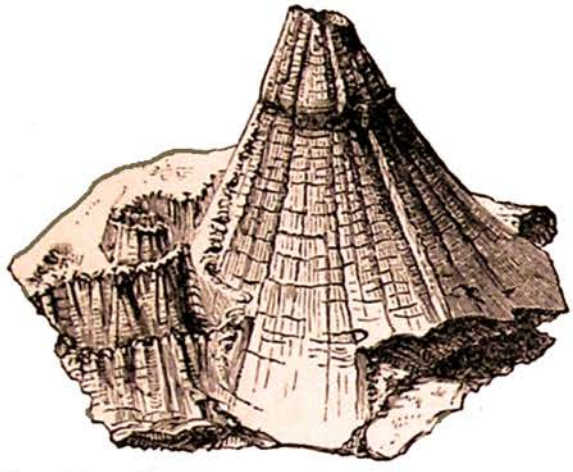

Fig. 12.—Cone-in-cone concretion (Carboniferous, Nova Scotia), illustrating pretended Algæ.

The genus *Buthotrephis* of Hall, which is characterised as having stems, subcylindric or compressed, with numerous branches, which are divaricating and sometimes leaf-like, contains some true Algæ. Hall's *B. gracilis*, from the Siluro-Cambrian, is one of these. Similar plants, referred to the same species, occur in the Clinton and Niagara formations, and a beautiful species, collected by Col. Grant, of Hamilton, and now in the McGill College collection, represents a broader and more frondose type of distinctly carbonaceous character. It may be described as follows:

Buthotrephis Grantii, S. N. (Fig. 13).—Stems and

* Appendix, p. 676, edition of 1878.