

fronds smooth and slightly striate longitudinally, with curved and interrupted striæ. Stem thick, bifurcating, the divisions terminating in irregularly pinnate fronds, apparently truncate at the extremities. The quantity of carbonaceous matter present would indicate thick, though perhaps flattened, stems and dense fleshy fronds.

The species *Buthotrephis subnodosa* and *B. flexuosa*, from the Utica shale, are also certainly plants, though it is possible, if their structures and fruit were known, some of these might be referred to different genera. All of these plants have either carbonaceous matter or produce organic stains on the matrix.

The organism with diverging wedge-shaped fronds, described by Hall as *Sphenothallus angustifolius*, is also a plant. Fine specimens, in the collection of the Geological Survey of Canada, show dis-



FIG. 13.—*Buthotrephis Grantii*, a genuine Alga from the Silurian, Canada.