

the distinct furrows on the sides indicate the outer edges of the lamellae; the other less distinct furrows the edges of the rudimentary lamellae."

Length from 1 to 2 inches, diameter $\frac{2}{3}$ of an inch.

Specific name, Latin, *rectum*, straight.

Fig. 18. *Strombodes simplex*. Professor Hall thus describes this species. "Turbinate, curved near the base; disk expanded; thin on the edge, sometimes sub-reflexed; laminae simple, much contorted in the centre, and irregularly bifurcating toward the margin (about 40 in number); surface marked by longitudinal striae." "The simple prominent laminae, and shallow cup, at once distinguish this species. It resembles the *S. plicatum* which occurs in the corniferous limestone."

The French authors appear to think this fossil to be a *cyathophyllum*, but do not give any decided opinion.

GAS for illumination from the Utica slate. Professor Hind's Lecture before the Mechanics' Institute of Toronto, extracted from the Toronto Times, 28th January, 1857.

"Last Friday evening, Professor Hind, of Trinity College, delivered his second lecture at the St. Lawrence Hall, before the members of the Toronto Mechanic's Institute.

"The lecture was a continuation of a former one, delivered the Friday previous. In describing the manufacture of illuminating gas, the lecturer illustrated the subject by a novel mode of preparing that useful and important means of obtaining artificial light, which we shall endeavour to describe.

"The lecturer exhibited before the audience the process of manufacturing coal gas for illuminating purposes, but the material he employed for generating the gas was a substance altogether different from coal, being nothing more than the bituminous shale, which is found in abundance at the base of the Blue mountains, near Collingwood. This shale extends from lake Ontario to Oshawa, to Collingwood on Georgian Bay. It is particularly rich in bitumen, and produces upon distillation, a very brilliant illuminating gas, together with tar and oils and other substances usually produced in making gas from ordinary coal. The apparatus employed by the lecturer, consisted of a small table furnace, in which was placed an iron retort, containing about half a pound of the shale broken up into small fragments. To the pipe leading from the retort, a small glass globe was attached, for receiving the tar and oil; from this receiver a glass tube led into a vessel containing lime water; through which the gas issuing from the