This curious fossil was described with some other Carboniferous forms in the Report of the Peter Redpath Museum for 1883, and as that publication is not very generally accessible, the description may be repeated here:—

## Megastroma luminosum, Dawson.

"Broadly expanded layers about one millimetre in thickness, and two millimetres or more apart. Each laver consists of a double membrane, beset with numerous spicules pointing inwards and looking like two brushes facing each other. The membranes are penetrated by openings or oscula, and appear to be porous or reticulate in their substance and to have cellular thickenings in places, giving them a netted appearance. The layers sometimes though rarely unite, and are not always continuous when seen in section; this appearance being perhaps produced by large openings or spaces. In each layer the ends of the opposing spicules are sometimes in contact, sometimes separated by a space, empty or filled with calcite. intervals between the layers are occupied by organic limestone, consisting of small shells and fragments of shells and corals. As many as twelve or thirteen layers are sometimes superimposed, and their horizontal extent seems to amount to a foot or more. The layers have a deep brown colour, while the enclosing limestone is of a light gray tint.

"This remarkable body was found in the fossiliferous limestone of Brookfield, in patches parallel with the stratification, and at first sight resembled a coarse Stromatopora. When sliced and examined under the microscope, it presents the appearance above described. The membranes referred to, from their deep brown color, would seem to have been of a horny or chitinous character. They are sometimes bent and folded, as if by pressure, and appear to have been of a flexible and tough consistency.