

under consideration, each individual grew separately and unconnected with any other. Fig. 5 shews what we suppose was the appearance presented by one of these Polypi when growing on the bottom of the ocean. Outside, it probably consisted of a soft fleshy covering, which attached itself by a spreading base to the bottom. This soft integument also spread over the top and was perforated in the centre by a small opening, which was the mouth.—Around this was the circle of tentacles; from the mouth there hung down into the interior a small sack, which was the stomach; between this and the exterior there were a number of thin partitions radiating in the manner shewn in Fig. 6. These partitions and the inner portions of the exterior envelope or sack became solidified during the life of the animal, in the same manner that the bones of a quadruped are formed within the exterior soft covering of flesh. All those corals which are to be seen in the cabinets of the curious, were, when alive, covered with a thin gelatinous layer of fleshy substance. After death this decays, and only the solid part, or the coral, properly so called remains, preserving the shape of a branching twig, a dome shaped mass, or a cup, according to the species. The corals of this extinct genus *Streptelasma* are of the latter form, and partly hollow within, though usually found filled with limestone. Good empty specimens shew the radiating partitions projecting inward and meeting in the centre at the bottom of the cavity. The partitions or lamellæ, as they are called, extend up and down, and are more numerous above than below.

With the above explanations it will perhaps not be difficult for the student of Canadian Geology to understand the following concise description of the genus. It will be recollected that a family of animals, or fossils, contains a number of genera, and each genus, one or more species.

#### GENUS STREPTELASMA, (HALL.)

GENERIC CHARACTERS.—Corallum, simple, turbinate; radiating lamellæ, meeting in the centre at the bottom of the cup, where they are more or less twisted; no transverse diaphragms.

The generic name is from the Greek (*Streptos*), twisted; and (*plasma*), lamellæ; corallum means simply "coral;" turbinate, is top-shaped or conical. This genus is also called (*Petraia*) by many European Geologists, from the Greek (*Petraion*), stony, or living among stones.

There are several species of this genus (*Streptelasma*) in the Trenton and other limestones of Canada. They usually have the appearance of short curved petrified horns of some ruminating animal. They are striated upon the outside from the top to the bottom, each of the striae marking the position of one of the lamellæ inside of the cup. The following are the species that most frequently occur in Canada :—

#### STREPTELASMA CORNICULUM, (Hall.)

This species is generally from an inch to one inch and three quarters in length, considerably curved and marked by several obscure wrinkles or folds, between which again are many finer ones that encircle the cup. These are only visible in perfect specimens. Those which are worn on the outside do not shew them. In the specimens in our collection which we believe to