centre at the base, curving gracefully outwards. Each one of the tubes was the residence, or rather the hard external skeleton of a single Polyp, and when these were alive, no doubt the whole surface of the mass was covered with animal flowers, as in the Astræa. The seas of the ancient Silurian epoch were perhaps quite as gorgeous as the coral reefs in the southern climes of the present day.

Columnaria alveolata is confined to the Black River Limestone which lies just below the Trenton Limestone. Fine specimens may be collected in the quarry, where materials are now being procured for the Chatts Canal on the Ottawa.

The *Favosites Niagarensis* mentioned in Article 6, pages 57 and 60, of this journal, and also *Favosites Gothlandica*, noticed in the quotation from Sir Charles Lyell, at the commencement of the present article, very much resemble this species externally. The difference is in the internal structure, the walls of the tubes of *Favosites* being perforated by numerous small circular pores, and *Columnaria* unperforated. *Alveolata* appears to have been derived from the Latin, (*Alveare,*) a bee-hive, or (*Alveolus,*) the holes in which teeth are placed.

Another genus of corals composed of tubes most prolific in the Lower Silurian rocks of Canada, is *Chætetes*. Some of the strata in the Trenton Limestone appear to be composed almost altogether of one species of it in a fragmentary state. The tubes are exceedingly small, and they differ from *Astræa* and *Columnaria* in presenting no traces of radiating lamellæ. The following is a description of the genus:—

Genus Chætetes, (Fischer.)

Generic Characters.—Corallum usually forming cylindrical branches or hemispheric, or irregular masses composed of numerous long slender polygonal tubes with transverse diaphragms, but no pores or radiating partitions.

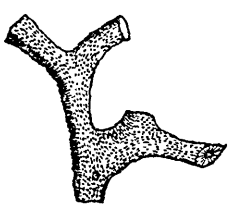

Fig. 11.

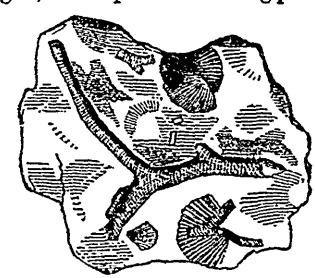

Fig. 12.

Fig. 13.

Figs. 11, 12, and 13.—*Different forms of Chætetes Lycoperdon.*

The above figures shew the most common forms of this coral. Fig. 13