

CHAPTER II.

GENERAL GEOLOGY.

GENERAL STATEMENT

The rocks occurring in the Grenville district when classified in a general way according to their age and structure fall into four definite groups:

- (1) A basal group of Pre-Cambrian rocks which have all been more or less deformed and metamorphosed.
- (2) Intrusive igneous rocks of late Pre-Cambrian age.
- (3) Approximately flat-lying sandstone shale and sandstone of early Palaeozoic age.
- (4) Unconsolidated gravel, sand, and clay of Pleistocene and Recent age.

Arranged in tabular form the succession of formations in the district in detail is as follows:

Table of Formations.

Quaternary.....	Champlain.....	Marine clay and sand.
	Glacial.....	Boulder clay, gravel, and sand
Palaeozoic.....	Chazy.....	Sandstone, shale, and limestone.
	Beekmantown.....	Limestone.
	Potsdam.....	Sandstone.
Late Pre-Cambrian ..		Granite, quartz syenite, syenite.
		Diabase.
Early Pre-Cambrian..		Granite-syenite gneiss.
		Metamorphic pyroxenite.
	Buckingham (igneous) series...	Pyroxene syenite. Pyroxene diorite. Pyroxene gabbro. Pyroxenite.
	Grenville series.....	Quartzite, garnet-sillimanite gneiss, crystalline limestone.

BASAL COMPLEX.

General Statement.

The basal complex, the oldest of the four great groups into which the rocks of the Grenville district have been subdivided, is composed of a heterogeneous assemblage of sedimentary and igneous rock types