

A section from north to south, across the middle of Manitoulin Island, would give about the following ascending section : General section.

	Feet.
1. Trenton formation (upper part, above level of Lake Huron).....	40
2. Utica formation.....	60
3. Hudson River formation.....	250
4. Clinton formation.....	157
5. Niagara formation.....	405
6. Guelph formation (to level of Lake Huron).....	100
Total.....	1012

*Superficial Geology.*—The glacial phenomena of the drift period have evidently had much to do with the production of the present features of the island. Glacial striæ are everywhere seen upon the top of the solid rock, except where its surface has been exposed to defacing agencies. Along the south side, the upper beds of limestone, sloping into the lake, are always strongly grooved or furrowed. A strip of bare and almost flat rock, several hundred feet broad, frequently intervenes between the forest and the water, and in such places the grooving is very strikingly displayed. On the west side of the entrance to South Bay, the Guelph dolomites are cut into a remarkable series of long straight and parallel hollows, in which the water is deep enough to admit sail-boats. The ridges between these furrows vary from one to ten feet in height. Their course is about S. 50° W., and they dip under the lake at an angle of two or three degrees. At the west end of the island, the course of the striæ is more nearly south than at the other end, where it is considerably to the west of south, the direction changing gradually with that of the depressions which hold the interior lakes and the bays on the north side. From the west end to Elizabeth Bay, the course is about S. 9° W.; on the south shore, nearly abreast of Lake Wolsey, it is S. 17° W., at Providence Bay, S. 36° W., and on the shores of South Bay, from S. 50° W. to S. 55° W. The northern sides of the interior lakes generally present low sloping and ice-grooved shores, corresponding with the south shore of the island, while cliffs or steep banks rise from their southern margins, corresponding with its abrupt northern coast. The flat top of Gibraltar Rock, at the head of Manitowaning Bay is worn into numerous large pot-holes. Some of these are upwards of ten feet deep, and six feet in diameter. Hard rounded boulders and stones were observed in the bottom of each, and out of some of them small trees had grown. Their elevation is about 200 feet over Lake Huron. Rounded boulders, derived from the hard Huronian rocks of the north shore of Lake Huron,