

prettily marbled, and hard enough to take a good polish, these limestones would probably afford handsome marbles for ornamental purposes.

On the Otolloch, claystone porphyry is associated with the Lower Carboniferous sandstones, and soft, green and purple slates, of supposed Silurian age, are cut and overlaid by a trap similar to that first above described. The purple colour of these slates is often superficial, and is probably only a local discolouration, caused by the red sandstones which have overlaid them.

At the confluence of the Wapskehegan with the Tobique, on the left bank of the latter stream, twenty-three miles by road from the St. John River, and again two miles further up, high cliffs of gypsum are seen. These beds form the sides of a very slight undulation, dipping easterly at a low angle, the top of which, where it approaches the river, has been denuded, leaving only the underlying shales and limestones exposed. At the upper of these two exposures, locally known as Plaster Rock, the cliff rises vertically from the water's edge to a height of 150 feet; it is made up of beds of impure gypsum of different colours, varying from dull purplish-red to greenish-white, with thin layers, which are pure white and fibrous; it is underlaid by soft, red shales, with thin bands of limestone, and by massive beds of siliceous limestone. Ascending Salt Creek (so called from its slightly saline taste), which empties into the Tobique just above the cliff, the gypsum is seen at intervals, cropping out from the sides of the ravine worn by the brook, for a distance of a mile back from the river. East of this, no exposures are seen, the surface being hidden by a thick covering of drift, until the elevation known as Plaster Rock ridge is reached. This ridge, lying two miles back from the river, is four hundred feet above it, and forms a high, level, table land, clothed with a large growth of hardwood, and with a soil apparently well adapted for cultivation. Outcrops of coarse, red conglomerate, in heavy beds, lying almost horizontal, shew near the top of the slope. They would thus overlie the gypsum and form the summit of the Lower Carboniferous, on the Tobique. The gradually rising ground, lying between the Tobique River and the foot of the ridge, is pitted with a number of the large funnel-shaped pot-holes so common in districts underlaid by gypsum. Some of these holes are upwards of fifty feet in depth, with steeply sloping sides, and with a width at the top of about sixty feet.

Without attempting to calculate the amount of gypsum contained in these beds, it will be readily inferred, from the above considerations, that the quantity is very large—certainly many million tons.