

Mineral Waters. Qualitative analyses of the waters of the following springs have been made.

Grant's Spring on the twelfth lot, sixth concession, of Fitzroy. This water is feebly saline and sulphurous to the taste; when boiled, it deposits a precipitate of carbonate of lime, which in the recent water is held up by carbonic acid. It contains chlorids of sodium, calcium and magnesium, carbonate of lime dissolved by carbonic acid, and a little sulphuretted hydrogen.

Packenham Spring, in the village of Packenham. This, like the former, is slightly saline and sulphurous; it contains in small quantities chlorids and sulphates of sodium, calcium and magnesium, with carbonate of lime dissolved by carbonic acid, and sulphuretted hydrogen.

The *Petrifying Spring*, on the thirteenth lot, sixth concession of Westmeath, appears to be one in which a large quantity of carbonate of lime is dissolved by carbonic acid; it is feebly saline and contains a small quantity of chlorids, besides a little sulphuretted hydrogen. A small quantity of dissolved carbonate still remained in the specimen examined.

Tucker's Spring, on the twenty-third lot, sixth concession of Westmeath, is slightly chalybeate, and holds a large quantity of carbonate of lime in solution. In other respects it is as pure as any natural water, containing only traces of the usual chlorids and sulphates.

The two latter springs resemble each other closely in their

character, and being, as I have been informed, found in the same vicinity, and with the same rocks, have doubtless a similar origin. Each spring you have informed me is surrounded by a large mound of calcareous tufa, doubtless deposited from the waters.

A specimen of water brought by Mr. Murray from a spring upon the Matan River, Gaspé, was found to be feebly saline, and to contain small quantities of chlorids of sodium, calcium and magnesium, besides a little carbonate of lime. This last ingredient is invariably present in those waters which flow through calcareous rocks, and is of little importance in a medicinal point of view. It exists as an acid carbonate, which is decomposed by boiling, the carbonate being deposited as a white incrustation. Mr. Murray observed that the water at the spring appeared to be sulphurous, but the specimen by exposure to the air must have lost all its sulphurous odor.

All of these waters are so feeble as not to be worthy of a quantitative analysis.

During the ensuing summer I shall visit some of the more important springs, with a view to collect waters for examination, and to determine their gaseous contents.

I have the honor to be,

Sir,

Your most obedient and humble servant,

T. S. HUNT,

Chemist to the Provincial Geological Survey.

GEOLOGICAL SURVEY OF CANADA.

REPORT OF PROGRESS FOR THE YEAR 1846-7.

MONTREAL, 1st May, 1847.

SIR,

I have the honor to request that you will do me the favor to place before His Excellency the Governor General, the accompanying Report of the Progress made in the Geological Survey of the Province, during the past season.

I have the honor to be,

Sir,

Your most obt. servant,

W. E. LOGAN,

Provincial Geologist.

To the Hon. D. DALY,

Provincial Secretary.

To His Excellency the Right Honorable JAMES BRUCE, *Earl of Elgin and Kincardine, Baron Bruce of Kinross and of Torry, one of Her Majesty's Most Honorable Privy Council, Governor-General of British North America, and Captain-General and Governor-in-Chief in and over the Provinces of Canada, Nova Scotia, New Brunswick, and the Island of Prince Edward, and Vice-Admiral of the same, &c., &c., &c.*

MAY IT PLEASE YOUR EXCELLENCY,

Having, in compliance with the instructions I had the honor to receive from the Commissioner of Crown Lands on the 12th May last, by command of His Excellency, Earl Cathcart, the late Governor General, geologically examined the British Shores of Lake Superior, as part of the task those instructions directed me to perform, I now have the honor to place before Your Excellency the results of my examination, the relation of which will at the same time constitute the Report it is my duty annually to present of the Progress

made in the general Geological Survey of the Province.

Leaving this on the 1st day of June, and joining my Assistant Mr. Murray at Detroit, where he had been engaged in completing arrangements for our expedition, we proceeded to Sault Ste. Marie, accompanied by Mr. McNaughtan, the Provincial Land Surveyor appointed by the Government to survey topographically the various mining locations, the mineral veins of which it was another portion of my task to