

yond the measure given to it in a previous Report, no fact has come to my knowledge of sufficient importance to authorize any change in the opinion that has already been expressed, *that the deposit will not in general remunerate unskilled labor, and that agriculturalists, artizans, and others engaged in the ordinary occupations of the country, would only lose their labor by turning gold hunters.*"

Mr. Murray's investigations were carried along the line between the neighbourhood of Kingston and Lake Simcoe. The general plan of operations embraced a set of north and south traverses between the shore of Lake Ontario and the rear of the surveyed lands, together with east and west offsets from the general course. The topographical information embodied in Mr. Murray's Report is highly interesting and valuable. The heights of the different Lakes, which appear to form a continuous chain along the line of operations, is given in detail. The following table contains the elevations of each Lake above the surface of Ontario:—

Name.	Townships.	Height in ft.	Falls into
Loughboro' Lake	Storrington and Loughboro'	166 12	Rideau River
Floot's Lake	Loughboro'	187 05	Lake Ontario.
Knowlton Lake	"	217 53	Mud Lake.
Mud Lake	"	217 53	Desert Lake.
Desert Lake	Bedford	217 53	Birch Lake.
Birch Lake	"	217 53	Beaver Lake.
Devil Lake	"	"	Rideau River
Canoe Lake	"	229 97	Desert Lake.
Batting's Mill Pond	"	257 00	Wolf L. & Rideau R.
Green Bay & Bob's L.	"	284 80	Tay & Rideau Rivers
Crow Lake	"	318 88	Mud Lake.
Sharbord Lake	Oso and Olden	505 29	Madawaska & Ottawa R.
White Lake	Olden	555 29	Sharbord Lake.
Cross Lake	Kenebec	412 84	Long Lake.
Long Lake	Sheffield	365 69	Beaver Lake.
Beaver Lake	Sheffield	367 22	Salmon R. & B. of Quinte
Balsam Lake	Beyley & Fenelon	558	Cameron's Lake.
Cameron's Lake	Fenelon	583	Sturgeon Lake
Sturgeon Lake	Fenelon & Verulam	561	Pigeon Lake.
Pigeon Lake	Harvey	556	Deer Bay.
Buckhorn Lake	Ennismore, Smith, & Harvey	556	Deer Bay.
Chemong or Mud Lake.	Ennismore & Smith	556	Buckhorn Lake.
Deer Bay	Smith	554	Salmon Trout or Clear L.
Stony or Salmon Trout Ls.	Dummer & Burleigh	626	Otonabee R. & Clear L.
Rice Lake	Monaghan, Alnwick, Hamilton, Otonabee	364	Trent R. Ontario L.

#### DISTRIBUTION OF THE FORMATIONS.

"The rocks of the area whose principal geographical features are given in the sketch, belong to two distinctly different periods; one set being fossiliferous and nearly undisturbed, and the other unfossiliferous and greatly disturbed, contorted and altered. The fossils of the former are all of the Lower Silurian age, and the strata to which they belong, as may be inferred, rest unconformably on the tilted edges of the latter. By drawing a straight line from about the middle part of Loughborough Lake, across the heads of Knowlton and Beaver Lakes, to Round Lake in Belmont, a small sheet of water a little beyond Belmont Lake, and then another from Round Lake to the northern extremity of Balsam Lake, a tolerably fair representation of the junction of the two series of rocks will be indicated; the metamorphic, to which you have given the name of the Laurentian series, keeping on the north, and the fossiliferous on the south side of the lines. There will, however, be several deviations from the regularity of the straight lines, occasioned by undulations in the more ancient rocks, bringing them occasionally to the surface on the south, while a number of outlying patches of the more recent formations are spread over portions of the country to the north."

The Laurentian series are described in the Report for 1845-6 on the Ottawa region, and the description there given applies equally to the rocks of the same series which came under Mr. Murray's notice in the Survey of 1852-3.

The kind and quality of economic materials met with in this survey are of considerable importance.

"The deposits of iron ore in Madoc, Marmora, and Belmont some of which have long been known and have been worked, will probably hereafter become of great commercial importance. The ore which was formerly smelted at the village of Madoc, by Messrs. Seymour & Co., and produced an excellent quality of iron, was mined on the eleventh lot of the fifth concession of the township. The bed appears to run through a black soft micaceous rock, and holds a course which as far as it was traced, was about W. by N., and E. by S., while the slope of the bed which is towards the south, was between seventy-five and eighty degrees. The greatest observed breadth of the bed appeared to be about thirty feet, and its average would probably not fall short of about twenty feet. A material similar to the soft black micaceous rock which accompanies the bed of ore on each side, appears every now and then to cut it diagonally in thin belts. In one place the bed is said to have been thus cut at distances of from every three to ten feet, and in another there was an unbroken part with a length of fifty feet. The ore is very black and very fine grained, and while the whole body of it is magnetic, some portions of it have polarity, one end of a fragment repelling and the other attracting the north end of the magnet. When the ore is bruised with a hammer on these portions of the bed, or on fragments taken from them, the particles adhere to one another and stand up on the mass as they would on a magnet, the ore being in short a natural magnet or loadstone. The portions which have polarity appear to run across the ore bed at right angles. Nodules of actynolite or green fibrous pyroxene, made up of radiating crystals, are disseminated in the ore, and yellow uranite is found investing small cracks."

Mr. Murray relates some curious instances of the popular *furor* in the search for precious metals which appears to have unsettled the minds of the inhabitants of our back woods.

"In almost all parts visited this year, but more especially in the back settlements, a great number of the inhabitants are possessed with the delusive belief, that the precious metals abound among the rocky ridges of the Laurentian country, and that they by their own individual exertions, are capable of realizing vast wealth. Iron pyrites, mica, plumbago, specular iron, galena, and other bright or metallic substances are indiscriminately collected, bared and buried in the woods, with the full impression by those engaged in such business, that they have stored away so much gold and silver; and although every second person met with, had a specimen of some sort to present, with anxious enquiries as to its nature, hardly a single individual could be found who was willing to give the smallest information as to its locality. It was in vain to argue with such persons that the consequences of a proper examination, might possibly be more advantageous to the common interest than anything they were likely to accomplish in secret and unassisted; such an argument was only regarded as the result of a governmental scheme to deprive them of their imagined wealth; and an appearance of anxiety to procure any information only rendered their secrecy the more profound."

Mr. Hunt's Report embraces a valuable classification of the