

used for the latter purpose. To these materials must be added the native copper, native silver, silver glance, amethyst quartz, and sulphate of baryta, contained in the veins which traverse the bottom rocks of the upper copper-bearing series of Lake Superior on the coast and islands of Thunder Bay, as at Prince's Location west of Fort William,\* &c.—always supposing the altered rocks in question to be really a portion of the Potsdam Group.

The sandstones and conglomerates of this group are developed chiefly in the Counties of Beauharnois, Vaudreuil, Two Mountains, and Berthier in Eastern Canada; and in those of Grenville, Leeds, Lanark, Renfrew, and Carleton in Canada West. A narrow belt occurs also to the west of the gneissoid ridge that crosses the St. Lawrence at the Thousand Isles. This belt runs through the Townships of Pittsburg, Storrington, and Loughborough, and dies out a little to the west of Knowlton Lake. At these various localities the Potsdam beds lie in unconformable position on the upturned edges or between the foldings of the Laurentian rocks. Strata belonging to the Potsdam Group have likewise been traced out, by the officers of the Geological Survey, on the north shore of the Straits of Belle Isle; and the formation is also thought, on good evidence, to occur between the Mingan Islands and the adjacent coast. The thickness of the formation appears to vary from about forty feet or less, in some localities, to six or even seven hundred feet, in others. Interesting exposures occur more particularly at the following places:—Loughborough, Ecl, and Knowlton Lakes; north shore of the St. Lawrence, a mile or two below Brockville; north shore and islands of Charleston Lake (Townships of Lansdown and Escott, in Leeds County); vicinity of Beverly in the Township of Bastard; Otty Lake, in Drummond Township, and surrounding district; Townships of Nepean and Gloucester, in Carleton County; Lake St. Louis; Lake of Two Mountains: Point St. Anne and Point du Grand Detour, in Vaudreuil; Lachute, on the Rivière du Nord; River St. Maurice (various parts, near the Cachée, &c.); and Hemmingford Mountain in the Township of that name, on the border line of the Province.† The name of this group is derived from

\* When the earlier portions of this essay were printed, the upper copper-bearing rocks of Lake Superior had not been definitely separated from the underlying and greatly resembling Huronian series. This should be borne in mind with regard to the descriptions of certain minerals in Part II.

† Many interesting details and measurements in reference to these and other localities, will be found in the Revised Report on the Geology of Canada, issued by Sir William Logan and his colleagues.