

band is uncertain; looking to the character of the mineral, which contains nickel and cobalt equivalent to 0.55 per cent of the oxides of these metals, I think it is very probable. The cobaltiferous pyrites of Brockville seems, on the other hand, to be an independent deposit, seeing that it occurs in such extraordinary quantity. I found the compact variety to contain metallic cobalt corresponding to 0.50 per cent cobalt oxide. This result was confirmed by Mr. Hunt, who found 0.52 per cent. In the neighbourhood of the copper mine of Escott, I found no traces of anything resembling fahlbands, so that I am inclined to parallelize this locality with the pyritiferous deposits above described as occurring at Meinkier and Lyngdalselven, independent of the fahlbands. In no particular does the Laurentian formation so much resemble the primitive gneiss formation of Norway, as in containing those enormous deposits of magnetic iron ore, which occur in the townships of Madoc, Marmora, Crosby, Hull, &c. In extent however, the Canadian deposits far surpass the Norwegian. In like manner, the deposits of titaniferous iron of Bay St. Paul far surpass in extent those of Snarum and Ekersund. The phosphate of lime of Burgess and Elmsley, differs from the deposits of the same mineral in Norway, in being associated with crystalline limestone, and in occurring in far greater quantities.

I have thus endeavoured, as far as my knowledge of Canadian geology permits, to parallelize the various features of the Laurentian and primitive gneiss formations. Doubtless many who are more intimately acquainted with the geology of this country will be able to recognize further points of resemblance, and in view of this possibility, I have described the Norwegian formation at greater length. I shall be guided by the same considerations in describing the two other groups of rocks which I have yet to compare with their Canadian equivalents. I cannot however

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clude triclinic feldspars, and thus pass into diallagic dolerite or gabbro. The feldspathic rocks of the Laurentian system, above referred to, consist of labradorite, andesine, or some related feldspar, and often include pyroxene, which from a variety like sahlite, passes into hypersthene and diallage, giving rise to hypersthene, and to the incorrectly named gabbro and euphotide of most modern lithologists. The rock from Kongsberg, as above described by Dahll, except in the substitution of hornblende for pyroxene, agrees closely with a variety of diallagic dolerite common in the Laurentian series. For further illustrations of this subject, see a paper on Euphotide and Saussurite, in Silliman's Journal of Science for March 1859.