

*THE APATITE DEPOSITS OF CANADA.*

BY T. STERRY HUNT, LL.D., F.R.S., MONTREAL, CANADA.

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THE presence of apatite in the Laurentian rocks of North America has long been known to mineralogists, and within a few years so much interest has been excited by the economic importance of deposits of this mineral found in certain parts of Canada, that a brief history of our knowledge of these deposits may not be unacceptable to the members of the American Institute of Mining Engineers. It was in 1847 that the present writer was shown by a local collector of minerals some large crystals, which had been called beryl, found in North Burgess, in Ontario. These were at once recognized as apatite; and after a visit to the locality, this was described in the report of the geological survey of Canada for that year as likely to furnish an abundant supply of a valuable fertilizer; the opinion being then expressed that the fact of "the existence of such deposits as these will prove of great importance."

Specimens of apatite from this locality, collected by the writer, were shown among the economic minerals of Canada at the great exhibitions of London and Paris in 1851 and 1855, and the mineral had already been found by explorers at several other points in the same region previous to 1863. In the *Geology of Canada*, published in that year, the writer resumed the results of his further studies of these deposits, and described the apatite as occurring in the Laurentian rocks, both distributed in crystals through carbonate of lime, and in "irregular beds running with the stratification and composed of nearly pure crystalline phosphate of lime." This was further said to occur in North Burgess, in several parallel "beds interstratified with the gneiss."*

In a subsequent report of the geological survey, in 1866, I again noticed the occurrence of the apatite in beds in the pyroxenic rocks often found associated with the gneiss. It was said, "the presence of apatite seemed characteristic of the interstratified pyroxenic rocks

* Loc. cit., pp. 592, 761.