

in quartz, and, as I have found, is sometimes associated with rich Silver ore. Assays made in Boston gave very considerable returns both of Silver and Gold.

MISPICKEL.—This is exhibited from three or four localities where it is sometimes found in very large amount, and often associated with and containing Gold, and occasionally Cobalt.

NICKEL AND COBALT—These metals I have found in two minerals which are exhibited, viz. Pickeringite and Pyrrhotine; and in another; but only in very small amount.

BARYTES.—This mineral is represented from a good many localities in different parts of the Province, in some of which it occurs of sufficient purity and in such quantity as to render it a profitable article of exportation. In two or three places it has been worked to some extent. The very fine mass from Five Islands, weighing some two or three hundred pounds, is from a mine which was in active operation last summer. Thirty tons had been taken out in three weeks before my visit, and in all, with the result of operations in former years, 500 tons had been quarried and exported.

GYPNUM.—This mineral exists in inexhaustible profusion; and in many parts of the Province, it is very favourably situated for quarrying and shipping. The various qualities are as well represented. It is used locally in making plaster for walls and ceilings, and is largely exported to the United States, where it is employed as a manure. The Selenite which is abundant in some quarries is valued for making the finest white cornices, and for stuffing fire-proof safes. The compact varieties, forming Alabaster, are suitable for interior carved decorations, as illustrated by a small carving. The quantity of Gypsum exported, having been depressed by the American war, is now again becoming large. In 1860 the quantity quarried was 126,700 tons, of the value of \$85,196.

BORATES IN THE GYPSUM.—A few years ago a most interesting discovery was made in the Gypsum of Windsor of a mineral which I proved to be Natroborocalcite, containing, along with soda and lime, 44 per cent. of boracic acid. A second mineral was afterwards found containing, according to my analysis, 59 per cent. of boracic acid, this I called Cryptomorphite. The former was found embedded in the Gypsum, the latter in crystals of Glauber-salt. Neither was found in large quantity. Both are exhibited.

ANHYDRITE.—Along with Gypsum large beds of Anhydrite are often found. This is used as a building stone under the name of hard plaster. When polished it affords an excellent and much admired substitute for marble, for interior decorations; it has never been as yet long exposed under these circumstances, but the pedestal, table top, and partially polished blocks, all I believe made from what may be called weathered specimens, shew that as regards present appearance the material is admirable.

MARBLES.—These are known to exist in large deposits in various parts of the Province; only surface specimens, however, have as yet been obtained, so that the value of the material cannot be decided upon. Very handsome varieties are exhibited, one of which, of concretionary structure and singular beauty, is sure to be much admired; it would make excellent in-laid work.

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