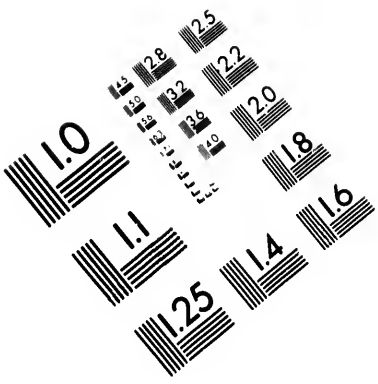

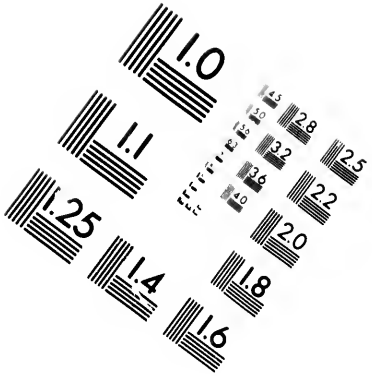

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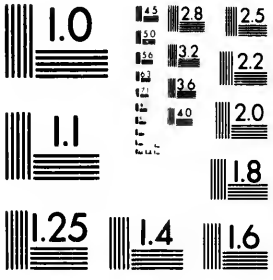

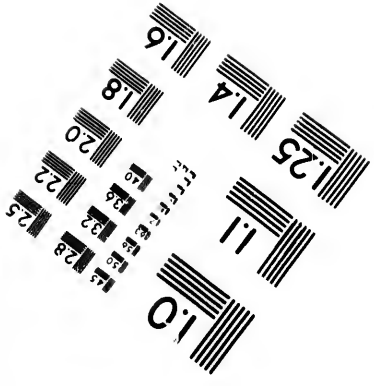

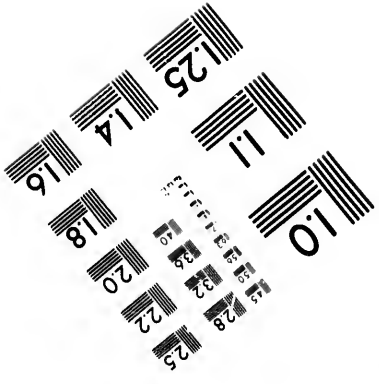

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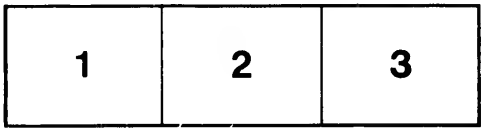

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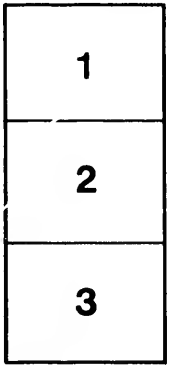

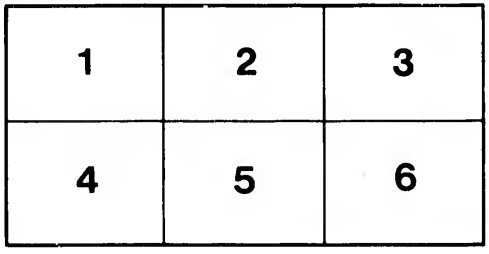

PROSPECTUS

OF THE

Dominion Marble Company,

[LIMITED.]

WITH A

DESCRIPTION

OF THE

MARBLE DEPOSITS

AT

MARBLE MOUNTAIN,

WEST BAY, CAPE BRETON.

1888.
S. M. MacKenzie, Printer.
New Glasgow, N. S.

PROSPECTUS

OF THE

Dominion Marble Company, Limited.

It is proposed to form a Company to purchase, develop and operate the extensive and very valuable marble deposits at Marble Mountain, West Bay, Cape Breton.

That the Capital Stock of the Company shall be $300,000.00 divided into 3000 shares of One Hundred Dollars each, from fifty to sixty per cent of which it is expected to call in by instalments as required.

DESCRIPTION OF THE PROPERTY.

The Marble Deposits above referred to are situated on North Mountain, now called Marble Mountain, on the north side of West Bay, Bras d'Or Lake, the mountain rising to the height of about 700 feet and the outcrop of the marbles being situate about 450 feet above the level of the Lake. An incline of about thirty degrees and 700 feet in length will lead from the quarries to the margin of the Lake. There is good bold water for shipping. A wharf 100 feet in length giving sufficient depth of water for a vessel of 500 or 600 tons capacity to load at, and the St. Peter's Canal, with 16 feet of water on the sill, affords easy communication with the outer waters.

The facilities for quarrying and shipping cannot be excelled, and at the outcrop of the marbles there is a seam of clay and debris, from eight to ten feet in width at the top but becoming somewhat narrower as it descends, which affords perfect drainage—thus saving the large outlay required in other quarries to keep them free from water—while, where openings are required to be made

this debris can be removed at a very moderate expense exposing the solid wall face of the marble.

A characteristic feature of these marbles is the immense extent and the variety of the Deposits. The openings made show a frontage of about 300 feet of coarse white Building marble, 80 feet frontage of fine white marble and 300 or 400 feet or more of colored or Brocatello marbles—embracing six or seven different varieties—and also a vein of beautiful fine flesh colored marble These marbles can be traced, at right angles from the outcrop, for a long distance so that the supply is simply *inexhaustible.*

There is also an abundant supply of water close at hand, as well as sand suitable for use in sawing blocks into dimension stock, while the near proximity of the Sydney and other Coal Mines, affords great facilities for obtaining cheaply any motive power for driving machinery required in working the quarries or sawing marble.

HISTORICAL.

The marbles in the Mountain range lying on the north side of West Bay were brought into notice in 1868, when the late N.J. Brown of Port Hastings obtained leases from the proprietors of nearly all the farms along this Mountain range for a distance of about 9 miles. A large sum of money was spent then and subsequently in prospecting the whole range to find the best marble, when the deposits above described were found to be the only ones that were really worth developing. In 1870 a Company was formed, to open, and,to a certain extent,develop the quarries, but pending the completion of St. Peter's Canal and for want of sufficient Capital and other reasons,there was very little more done in the way of opening the quarries Mr. Brown's death occurred before the Canal was completed ; the property was attached under a judgment recorded against him previous to the formation of the Company and was sold in 1885 and purchased by the present proprietors, who have since succeeded in securing a perfect title—the title under which the property was formerly held being very defective.

The following information—a considerable portion of which was obtained by the former proprietors—may prove interesting, and is considered perfectly reliable.

THE CHARACTER OF THESE MARBLES.

Samples of these Marbles, and the blue Limestone of the Area, were forwarded to the late Professor Henry How of Kings College, Windsor, N. S., for analysis, and his report on the *Chemical Composition* of the Blue Limestone was as follows:—

Carbonate of Lime	94.31
Carbonate of Magnesia	.75
Oxide of Iron & Alumina	.45
Water	.14
Phosphoric Acid	decided traces
Silicious residue	4.35
	100.00

And subsequently viz on April 26th 1879, Professor How again wrote: "From the Analysis of Limestone given in my first report, the great purity of the marble might be inferred; but further, I have to-day made a test of two samples, from which you can safely say the amount of Carbonate of lime in the marble must be nearly 100 per cent."

Professor Hitchcock, State Geologist for Maine and New Hampshire, in his report upon the Vermont marble, its purity, nature of coloring matter, and its ability to withstand exposure, said "I find two principal varieties—1st, the *light clouded* nearly white; 2nd, the dark striped and mottled stone, to which the name *Columbian* marble is usually distinctively applied. On consulting the careful analyses of these two varieties, by Mr.Penfield of the Yale College Scientific School,it appears that the darker variety is the purest, containing 98.37 per cent. of Carbonate of Lime, while the light clouded stone carries two per cent. less of the same material, or 96.37 per cent. These are therefore remarkably pure marbles. The other in-

gredients or impurities are those common to all the marbles of Western Vermont, viz: some silica, a little Carbonate of Magnesia, and traces of Metallic Carbonates. It is doubtful if any marble is ever absolutely destitute of magnesia, and it is certainly not sufficiently abundant to injure the soundness of the stone. Customers are apt to enquire about iron, meaning whether there is any sulphuret of iron or pyrites present, because this mineral readily decomposes, leaving the stain of iron rust or oxide. This compound is not present at all. There is therefore no impurity present which will injure the quality of the stone. . . . . The Analyses demonstrate that the color is produced by graphite or pure carbon—a substance incapable of decomposition by atmospheric agents in any climate." . . . . . .

Professor Hitchcock's report, from which the above extract is taken, was forwarded to Professor How, who, after perusing it, wrote again as follows:

April 30th, 1879.

DEAR SIR,—I have read Professor Hitchcock's letter (returned) and what he says of Vermont marble is almost precisely what could be said of Marble Mountain. As I said before, take the analysis of the limestone as an index of the purity of the marble. I have made no *quantitative* analysis of the marble, but, as I told you, from experiments lately made, you are safe in stating that there is close upon 100 per cent. of Carbonate of Lime in the marble. There is, as usual in marble, Carbonate of Magnesia, but in this case it is trifling (so even in the limestone), and the same is the case with the siliceous residue, which is probably what Professor Hitchcock calls "silica".

I have made a direct test for magnesia Carbonate since my experiments mentioned in Postal Card, and I find there is, as I said, very little, as would be inferred from analysis of Limestone."

(Signed) H. How,
Prof. Chemistry, Kings College, Windsor

In the General Mining Report, for 1877, Henry Poole, Esq., F. G. S., Associate of the Royal School of Mines, thus reported to the Government of the Province of Nova Scotia.

The Marble Mountain quarries did nothing pending the repairs and the enlargement of the St. Peter's Canal, Sample Blocks of the white and various colored marbles sent from these quarries to the Centenial Exhibition were much admired. The quarries were visited by Mr. Underhill, of West Rutland, Vermont, who wrote and spoke most favorably of the quality—a matter that can only be fairly judged by a practical worker in marble. Of the extent of the deposits and the facility for quarrying, I can justly say nothing more could be desired. An abrupt hill of solid marble, several hundreds of feet high, rises from the shore of the Bras d'Or Lake, with deep water within a hundred feet. A tunnel has been driven through the broken and weathered beds on the slope of the hill into a rent which, when cleared of the clay which now fills it, presents an extended face of marble unbroken by frost. The cleavage planes of the beds are wide apart, and lie parallel to the mountain range and shore, so that large blocks can be economically extracted removed through the tunnel, and by a self-acting incline, lowered to the mill, there to be cut into slabs for shipment."

In the 1879 Report of Explorations and Surveys in Cape Breton of H. Fletcher, B. A., addressed to A. R. C. Selwyn, F. R. S., F. G. S., Director of the Geological Survey of Canada, the following statement occurs:

"The finest deposit of workable marble yet developed in Nova Scotia is that of Marble or North Mountain, on the West Bay of the Bras d'Or Lake, which was discovered by Mr. N. J. Brown in 1868, but has attracted less attention than it deserves, owing to the difficulties which beset a new enterprise; the occupation of the Canadian market by other quarries more favorably situated, and the exclusion of Canadian marble from the United States by a duty. Still, there can be little doubt that this will ultimately become a source of profit to its owners.

In variety of color and tint this rock is like the chrystalline limestone of the George's River series, of which it forms a part; but it contains little or no admixture of the foreign minerals that elsewhere render them unfit for use, is more uniform in texture and is in unequalled abundance.

Its texture and quality are excellent; it works freely, takes a good polish, stands the weather well, and is especially adapted for monuments and ornamental work. . . . . Several quarries have been opened. The Grand Quarry, about four hundred and fifty feet above the lake, and three hundred yards from deep water, is in the centre of the very best pure white and variegated rock which is found over about two or three hundred acres, and exposed in the quarry to a height of sixty feet. . . . A bed of yellowish, crumbling Rock eight feet thick, overlies the marble, and greatly facilitates its removal. At the upper part of the face the marble is very much broken, but the cracks diminish in number, in extent and depth, and for some distance around the tunnel the marble is white, solid and free from flaws; and as the beds here are from four to five feet thick, immense blocks can be removed. Another tunnel has been driven from a point halfway between the first tunnel and the shore to strike the wall face 170 feet below the surface where the marble is clear white and free from flaws. The facilities for mining, drainage and shipment could hardly be surpassed."

WHAT PRACTICAL MEN SAY.

During the year 1876 the marble quarries were visited by Mr. R. M. Underhill, of West Rutland, Vermont,—a gentleman having large experience in working marble quarries, and who was at that time travelling Agent for one of the West Rutland Marble Companies, and the following extracts from letters written by him afterwards will convey a good idea of his opinions as to the extent and value of the marble deposits at Marble Mountain.

In a letter addressed to the late George A. Sanford, Marble Worker, Halifax, N. S., he said—"I am once more

at home, and I promised to write to you and let you know what I found at Cape Breton. I found a large deposit of white marble. Should think two thirds of the deposit a valuable building marble. The texture is as coarse as common granite, and white, with clouds of nice blue spots nicely blended, sufficient to break the sameness that all white would produce. The balance of the deposit is white, of fine color, strongly resembling "the best Italian and nearly as fine . . . . . Sand is readily obtained on the beach. The water is deep enough for large vessels, and from the Bras d'Or they can go to any part of the world. I have all confidence in the marble."

And in a letter to Mr. Brown, dated West Rutland, March 16th, 1877, he wrote: "I have been engaged in quarrying marble for over thirty years. I may say the superintending of the quarrying of marble has been my business altogether till of late. I have seen most of the marble deposits in the States, but do not know of any to compare, either in variety or extent, with that of Marble Mountain, West Bay, Cape Breton.

In my travels last summer I showed your marble samples to many marble dealers; they would scarcely credit the facts when I described to them your quarries, being so dry and in the side of the mountain, and so near the harbor. I know of no place where there are such facilities to do an immense business in quarrying and shipping marble, and also sawing dimension stock on the place, as you have *the proper sand* and *fuel*, both of which we have to procure at a distance at considerable outlay. . . . With right management I do not see why, in a very short time, your enterprise would not be one of the biggest things out, as it is quite evident the supply is quite inexhaustible, and the more marble taken away, the more valuable will become the quarry."

In another letter Mr Underhill refers again to the sand. "With your sand you would be able to saw more than we (in West Rutland) can with ours, (say 6 to our 4.) There is no place of my acquaintance where there is every advantage you have."

Samples of the marbles were submitted to practical marble workers with the following results:

Messrs. G. W. Ross & Co., of Pictou, N. S., write:—

"We are very much pleased with its texture and quality. It works as freely as the best Italian marble, and we believe it will be more durable for outside work. It takes as good a polish as any marble we ever used. The Vermont is not a circumstance to it."

Mr. Sanford, Marble Worker, Halifax, N. S., writes:—

"I have very great pleasure in pronouncing its quality as a weather stone good. It works as free as Italian marble, takes as brilliant a polish, and I believe will stand the climate fully better."

Specimens were also sent to England and left with dealers and workers in marble. The following are a few of the testimonials received.

Mr. Cooper, Foreman of the Marble Works of Alywin, Stampa & Co, London, after an examination of the samples left with him, said of the black and grey veined marble, "It was a mere question of producing it at a moderate cost and in quantity. The quality was good."

Professor Tennant, Mineralogist to Her Majesty, examined specimens sent to him, spoke very encouragingly, and said that "it was a question merely of what you could produce it for and at what rate it could be sold; if cheaper than other marbles of the same quality, success was sure."

Mr. Lomas, of the Marble Works, 28 King St. and St. Helen St., Derby, said: "The white marble would work well, and if sold low no doubt a large sale could be made, as the Consumption of Marble is very great, and is constantly increasing."

Mr. Burley, Foreman of the Hopton Wood Stone Quarries, Derby, "Approved of all the samples as worthy of the attention of the trade, if cheap." In answer to the question whether the white marble would take if it could

be sold at 4*s.* to 5*s.* sterling per cubic foot, he said "it would; a cheap white marble would sell as well for mantlepieces, and all sorts of work as the Italian, but if statuary were to be tried at a lower price than the Italian, it would sell splendidly."

Mr. Somers, of Bakewell, approved of the samples, if offered at a low price, as there is no such thing as white marble at less than 9*s.* to 12*s.* per cubic foot, in London or Liverpool."

Mr. Redfern of Ashford, expressed himself favorably as to the white if sold at 4*s.* to 5*s.* per cubic foot; and believed that it would find a ready sale. Mr Twigg of the same place said there could be no doubt that such marble as the white and the grey would sell readily. Both these men are practical Marble Workers on a large scale, both in native and foreign marbles.

Thus Geologists, practical Chemists, practical Engineers, practical Quarry Workers and practical Marble Workers of extensive experience, have concurred in affirming the great quantity, the good quality and the accessibility of these marbles.

We may also add the opinions expressed by a Gentleman from New York,—a business man of large and varied experience, although not in the line of Marbles—who visited the quarries in August, 1887, in company with one of the present proprietors. In order that he would be free to form an *unbiassed* opinion of the extent and value of the property, the testimony given by others who had visited Marble Mountain was purposely withheld from him, and in his letter written on 27th August, 1887, after his return he says:

"The object of my trip to Marble Mountain was never very fully discussed, but I understood it to be with a view to expressing to you my convictions with reference to the property, after having examined it. I am not an expert in quarrying or working marble, nor could I express an opinion with reference to qualities which would be useful. These questions should be submitted to persons

who can speak with undoubted authority, and if this has already been done so much the better. The opportunity which I had of making a superficial examination of the deposit, could not well be improved upon, we having remained at the outcrop, the old workings and surrounding places a whole day, with willing hands to assist in such manual labor as was deemed requisite. But while only an experienced person should determine how to work the quarry, there certainly can be no mistake in saying that if intelligently handled marble should be taken out as cheaply there as at any place in the world. I am induced to say this much because it is so apparent. Situated immediately on a bay of the Atlantic, in such manner that probably more than three hundred feet in depth could be worked without any difficulty from drainage, and so that no power other than its own weight would be required to place it on the wharf ready for shipment to any point accessible by water, I cannot be wrong in concluding it may be quarried and shipped as cheaply as any. Nor is there any possible question as to quantity. There are millions of tons, and in very considerable varieties. Of the "fine" marble which impressed me as being a superior quality, there is plainly not less than eighty feet in breadth shown at the outcrop and workings. If then the quantity, quality and accessibility are as I suppose them to be, (and these questions are easily determined) there being always a demand for good marbles, the property must have ultimately a great value."

COST OF PRODUCTION.

Several experts have been consulted upon this point, and their statements concur in the main with the following estimate of the late Adam Hunter, who had been in charge of Granite quarries for twenty years and was well known by the leading contractors in Halifax. Mr Hunter visited Marble Mountain and spent some time in experimenting so as to ascertain, as nearly as possible, the cost of quarrying the Marble compared with that of Granite, and he estimated that the Marble could be quarried and placed on the wharf in the rough for $2.00 per Ton

of 13 cubic feet, and that an additional outay of $2.00 per Ton would pay for scabbling; making the cost on the wharf ready for shipment in a merchantable condition Four Dollars per Ton; but said that the application of Labor Saving machinery would, without doubt, greatly reduce the expense of production, and the saving effected thereby would soon pay the cost of the machinery.

But taking the cost of production as above stated, and adding Freights from $4.00 to $4.50 per Ton; and incidentals say $1.50 would make the total cost delivered at Seaport Towns from $9.50 to $10.00 per Ton c i. f.

If then marble can be delivered at Ports in Canada, United States and Great Britain for $10.00 per Ton c.i.f.—and it is believed that this estimate is in excess of, instead of being below, what the actual cost would be after the quarries are properly opened up and the requisite machinery procured to work them to advantage,—then it can be readily seen that the profits must indeed be very large. It is true that the cheaper qualities of marbe would scarcely find a market in the United States under their present almost prohibitory tariff, but the fine white and flesh colored marble should find a ready market in their Ports, and yield very handsome returns, even after paying the duty of 65 cents per cubic foot, while in Canada and England the cheaper Grades should yield a net profit of Five Dollars per Ton. As to the demand the testimony of Marble workers in England, hereinbefore partially referred to, and the results of fuller investigations, go to show that there would undoubtedly be a very large demand there; while a gentleman engaged in quarrying marble in West Rutland, Vermont, in a letter to one of the present proprietors, dated 5th August, 1887, wrote as follows;—"Marble has never been as scarce since I have been in the business as now. The mill and quarrying capacity of this country (Rutland) has doubled twice in the ten years past, and still the demand has not been met."

Enquiry has elicited and experiment established the fact

that the rubble or broken marble may be utilized by having it powdered, when it is available for zinc,paint and paints generally, taking the place of Barytes, a much more expensive article. It can also be used for enamelling paper collars, for whitewashing and for muslin. A similar article, called the lime rock of Rhode Island, commands for these purposes $30.00 to $40.00 per Ton, while it can be manufactured for the market at a cost not exceeding $15.00 per Ton.

The amount of marble imported into Canada annually, as per Trade returns, is valued as entered for Duty, at from $100,000.00 to $120,000.00, and the trade thus indicated is capable of great expansion, owing to the presence of such a large deposit of building marble in the property hereinbefore described, and which can be supplied at as low a rate as any other Building stone. (Marble for Building's not being included in above values.) While the Trade Returns of the United States for the last few years show that notwithstanding the great development in marble Quarries in Rutland, Vermont, and elsewhere, they still have to import marble to the value of over $400.000.00 annually

D. MACLACHLAN,
HENRY SANDERS,
GEO. HATTIE.

January, 1888.