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CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

THE
STONE INDUSTRY
IN

CANADA

1942

including: 1. The Stone Quarrying Industry;
2. The Stone Products Industry.



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(16 May '44)

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THE STONE INDUSTRY IN CANADA, 1942

The Stone Industry in Canada comprises two main divisions: 1. The Stone Quarrying Industry, including quarries and dressing works operated in conjunction with quarries, and 2. The Stone Products Industry, comprising the operations of firms having no quarries but who operate dressing works where stone for building and monumental purposes is cut, polished or otherwise finished. In the Census of Industry, statistics on the stone quarrying industry are included under mining, while statistics of the Stone Products industry are included under manufactures. For convenience, this report carries data for both of these industries.

These two major divisions, constituting the Canadian stone industry, represented a capital investment of \$14,895,507 in 1942. Production during the year totalled \$11,114,999, which figure includes the value of the quarry output and the value added by manufacturing in the secondary stone industry. Salaried employees and wage-earners employed in 1942 numbered 3,622 and their combined earnings amounted to \$4,721,645.

The two industries are treated separately in the following review:

1. PRIMARY PRODUCTION--THE STONE QUARRYING INDUSTRY

The kinds of stone quarried in Canada include granite (trap rock, syenite and other igneous rock), limestone, marble, sandstone, and slate. Stone of almost every known variety occurs in Canada; rocks of the igneous areas of British Columbia, Manitoba, Ontario, Quebec and the Maritime Provinces exhibit a wide range of physical characteristics, some varieties being especially noted for their richness of colour and beauty of crystallization. The sedimentary rocks, including limestones, sandstones and marbles are quarried at various points in Canada. The products from quarries operating in these different formations not only yield high class structural and decorative materials but provide the chemical and other allied industries with many of their increasing requirements.

The gross value of all varieties of stone produced in Canada during 1942 totalled \$8,746,594 compared with \$8,000,684 in 1941. Comprising the tonnage shipped in 1942 were 6,442,583 tons of limestone valued at \$6,468,525; 1,366,425 tons of granite (igneous rocks) valued at \$1,946,249; 153,865 tons of sandstone valued at \$226,810; 13,824 tons of marble valued at \$88,209, and 1,369 tons of slate worth \$16,801. Of the total value of domestic stone produced in 1942, quarries in the province of Quebec contributed 47.6 per cent, Ontario 34.1 per cent, and British Columbia 4.5 per cent.

The number of firms in the stone quarrying industry reported as active in 1942 totalled 412; capital employed amounted to \$10,988,011; employees numbered 2,697; salaries and wages paid aggregated \$3,454,263, and the cost of fuel, electricity and process supplies used was reported at \$1,517,169.

Table 1 - PRINCIPAL STATISTICS OF THE STONE QUARRYING INDUSTRY IN CANADA, 1941 and 1942

	1941	1942
Number of firms	457	412
Capital employed	11,162,036	10,988,011
Number of employees—On salary	293	282
On wages	2,465	2,415
Total	2,758	2,697
Salaries and wages—Salaries	445,139	456,204
Wages	2,450,961	2,998,059
Total	2,896,100	3,454,263
Selling value of products (Gross)	8,000,684	8,746,594
Cost of fuel and electricity	642,085	672,900
Process supplies used	641,098	844,269
Selling value of products (Net)	6,717,501	7,229,425

Table 2 - PRINCIPAL STATISTICS OF THE STONE QUARRYING INDUSTRY IN CANADA, BY PROVINCES, 1938-1942

Province	Year	Number of firms	Capital employed	Fuel, elec- tricity (x) and process supplies used	Number of em- ployees	Salaries and wages paid	Net value of pro- duction
			\$	\$		\$	\$
Nova Scotia	1938	20	51,891	11,573	61	51,178	135,371
	1939	18	166,288	18,143	80	67,095	115,774
	1940	47	272,284	50,971	158	128,257	282,673
	1941	40	178,967	25,611	102	88,597	243,734
	1942	57	574,291	44,624	185	298,510	719,543
New Brunswick ...	1938	6	154,258	3,684	75	58,141	116,641
	1939	8	243,358	16,660	156	118,890	249,447
	1940	9	222,471	16,097	146	138,733	294,202
	1941	11	243,460	17,605	125	120,484	330,259
	1942	8	246,014	18,644	103	100,772	302,636
Quebec	1938	189	5,219,520	408,199	1,744	1,239,082	2,119,729
	1939	218	5,339,375	551,029	1,903	1,577,265	2,792,570
	1940	199	4,885,498	466,948	1,572	1,280,955	2,560,653
	1941	203	5,287,599	618,873	1,552	1,453,640	2,990,694
	1942	170	4,940,308	880,456	1,537	1,823,237	3,286,009
Ontario	1938	181	4,882,560	429,202	767	741,251	1,893,963
	1939	175	5,609,524	476,867	754	826,949	1,821,244
	1940	193	5,674,896	638,120	785	995,005	2,749,275
	1941	170	4,435,408	572,826	767	995,085	2,705,110
	1942	167	4,477,354	528,471	688	983,085	2,457,467
Manitoba	1938	6	393,148	13,481	43	56,431	88,136
	1939	5	225,353	8,454	48	55,558	75,494
	1940	6	390,252	8,998	43	39,528	69,442
	1941	5	591,870	14,331	26	26,333	50,567
	1942	6	382,893	7,834	23	23,261	64,132
Alberta	1938	2	(/)	(/)	(/)	(/)	6,148
	1939	3	6,400	248	5	3,552	14,032
	1940	2	(/)	(/)	(/)	(/)	11,999
	1941	2	(/)	(/)	(/)	(/)	24,303
	1942	2	(/)	(/)	(/)	(/)	40,436
British Columbia.	1938	25	505,897	24,211	125	152,073	305,608
	1939	25	622,729	50,488	150	167,269	325,251
	1940	26	631,870	43,241	182	197,225	426,360
	1941	26	644,752	53,957	186	211,961	372,854
	1942	22	567,171	37,140	161	225,400	359,202
TOTAL—CANADA ...	1938	429	11,187,274	890,350	2,815	2,298,154	4,665,676
	1939	452	12,215,030	1,081,884	3,076	2,816,579	5,393,812
	1940	482	12,127,271	1,204,373	2,886	2,779,703	6,194,584
	1941	457	11,162,036	1,283,183	2,759	2,896,100	6,717,501
	1942	412	10,988,011	1,517,169	2,697	3,454,263	7,229,425

(x) Exclusive of electricity generated by operator.

(/) Included with data relating to lime industry.

Table 3 - AVERAGE NUMBER OF WAGE-EARNERS, BY MONTHS, 1941 and 1942

1 9 4 2					1 9 4 2				
Month	1941 Total	Quarry			Month	1941 Total	Quarry		
		Surface	Under- ground	Dressing works			Surface	Under- ground	Dressing works
January..	1,219	1,235	14	215	July	3,190	2,425	5	557
February..	1,270	1,124	16	209	August ..	3,327	2,426	6	545
March ...	1,519	1,355	6	595	September	3,257	2,456	5	517
April ...	2,045	1,882	8	458	October..	3,148	2,279	6	451
May	2,932	2,528	8	526	November..	2,665	2,152	4	292
June	3,024	2,445	7	547	December..	2,012	1,618	10	244
					AVERAGE..	2,465	1,989	8	418

Table 4 - NUMBER OF WAGE-EARNERS WHO WORKED THE NUMBER OF HOURS SPECIFIED, DURING ONE WEEK IN MONTH OF HIGHEST EMPLOYMENT, 1942

Hours	Nova Scotia No.	New Brunswick No.	Quebec No.	Ontario No.	Manitoba No.	Alberta No.	British Columbia No.	CANADA No.
30 hours or less ..	17	...	147	56	2	(x)	2	204
31-43 hours	33	...	174	39	...	(x)	19	265
44 hours	39	...	65	15	28	(x)	2	149
45-47 hours	3	...	82	45	7	(x)	...	155
48 hours	65	16	166	95	...	(x)	107	447
49-50 hours	6	1	89	19	...	(x)	4	119
51-54 hours	46	9	243	89	...	(x)	26	415
55 hours	8	2	168	74	...	(x)	5	257
56-64 hours	51	101	585	260	1	(x)	8	1,004
65 hours and over..	6	...	435	147	3	(x)	19	608
GRAND TOTAL	272	129	2,150	817	41	(x)	192	3,601
Total wages paid in that week	8,291	2,759	58,157	22,854	856	(x)	6,586	99,465

(x) Information not available.

Table 5 - POWER INSTALLATION, 1942

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total h.p. (according to manufacturers' rating)	Number of units	Total h.p. (according to manufacturers' rating)
Steam engines and steam turbines	48	1,924	5	585
Diesel engines	55	4,357	5	420
Gasoline, gas and oil engines other than diesel	229	10,478	15	494
Hydraulic turbines or water wheels	9	808	...	...
Electric motors run by purchased power..	769	25,212	62	2,555
Electric motors run by own power	25	881	8	70
Stationary boilers	62	2,644	2	85

Table 6 - FUEL AND ELECTRICITY USED, 1942

Kind	Unit of measure	Nova Scotia		New Brunswick		Quebec		Ontario	
		Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works
			\$		\$		\$		\$
Bituminous coal -									
Canadian	short ton	602	5,749	1	6	1,212	11,181	218	1,770
Imported	short ton	...	...	...	...	2,917	27,091	7,140	55,054
Anthracite coal	short ton	...	...	...	...	128	1,728	2	29
Lignite coal	short ton	...	...	...	...	...	...	...	...
Coke	short ton	27	285	...	...	117	1,178	161	1,775
Gasoline	Imp. Gal.	48,916	14,179	13,058	2,925	452,712	154,069	245,858	66,854
Kerosene	Imp. Gal.	...	...	...	...	2,279	584	405	75
Fuel oil	Imp. Gal.	25,000	2,510	6,818	658	147,276	22,458	92,569	11,054
Wood	cord	8	72	24	96	1,700	9,061	41	287
Gas - Natural	M cu. ft.	...	...	...	...	...	...	1,000	696
Other fuel .....	...	...	...	...	...	...	...	...	...
Electricity purchased	K. W. H.	458,800	8,675	543,125	9,515	10,421,962	145,266	11,955,771	115,559
TOTAL .....	...	...	51,468	...	12,998	...	552,616	...	252,891
Electricity generated for own use	K. W. H.	...	...	...	...	2,240	...	266,800	...
Cost of explosives and other process supplies used .....	...	...	15,156	...	5,646	...	527,840	...	275,580

Kind	Unit of measure	Manitoba		Alberta		British Columbia		C A N A D A	
		Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works	Quantity	Cost at works
			\$		\$		\$		\$
Bituminous coal -									
Canadian	short ton	25	525	(x)	(x)	460	4,259	2,518	23,270
Imported	short ton	...	...	(x)	(x)	1	50	10,058	82,175
Anthracite coal	short ton	...	...	(x)	(x)	6	140	156	1,897
Lignite coal	short ton	...	...	(x)	(x)	...	...	...	...
Coke	short ton	...	...	(x)	(x)	...	...	505	3,254
Gasoline	Imp. Gal.	4,215	1,417	(x)	(x)	28,222	6,702	770,971	226,124
Kerosene	Imp. Gal.	66	10	(x)	(x)	5,529	429	6,079	1,098
Fuel oil	Imp. Gal.	...	...	(x)	(x)	50,612	2,462	300,075	39,122
Wood	cord	25	175	(x)	(x)	7	49	1,805	9,740
Gas - Natural	M cu. ft.	...	...	(x)	(x)	...	...	1,000	696
Other fuel .....	...	...	...	(x)	(x)	...	...	...	...
Electricity purchased	K. W. H.	174,709	4,529	(x)	(x)	96,955	2,620	23,451,322	285,544
TOTAL .....	...	...	6,256	(x)	(x)	...	16,671	...	672,900
Electricity generated for own use	K. W. H.	...	...	(x)	(x)	...	...	269,040	...
Cost of explosives and other process supplies used .....	...	...	1,578	(x)	(x)	...	20,469	...	844,269

(x) Not available.

Table 7 - The following table gives the value of construction contracts awarded in Canada from 1925 to 1942, also index numbers of wholesale prices of building materials, index numbers of wage rates and value of total stone produced.

Year	Value of construction contracts awarded in Canada (a)	Value of Canadian primary stone production (b)	Average index numbers of employment in building construction (1926=100) (c)	Average index numbers of wholesale prices of building materials (1926=100) (d)	Index of wage rates in the building trades (1955=59=100) (e)
	\$	\$			
1925	297,973,000	7,464,777	75.8	102.9	103.1
1926	372,947,900	7,865,874	100.0	100.0	104.2
1927	418,951,600	9,265,304	108.7	96.1	108.5
1928	472,032,600	10,272,501	112.0	97.4	112.5
1929	576,651,800	12,066,532	135.3	99.0	119.6
1930	456,999,600	13,037,209	134.3	90.8	123.0
1931	315,482,000	11,075,184	104.3	81.9	118.5
1932	152,872,400	4,942,211	54.1	77.2	107.9
1933	97,289,800	5,000,526	58.5	78.3	95.6
1934	125,811,500	4,157,131	47.8	82.5	93.7
1935	160,305,000	5,507,563	55.4	81.2	96.7
1936	162,588,000	5,134,153	55.4	85.3	97.3
1937	224,056,700	6,939,360	60.1	94.4	100.1
1938	187,277,900	5,556,026	60.1	89.1	102.5
1939	187,178,500	6,475,696	62.1	89.7	103.3
1940	346,009,800	7,398,959	83.5	95.6	105.7
1941	395,991,300	8,000,684	139.5(e)	107.5	111.7
1942	281,594,100	8,746,594	157.9	115.2	118.4

(a) Compiled by McLean Building Reports Ltd.

(b) Includes all stone except limestone used in making lime and cement.

(c) Employment Statistics Branch, Dominion Bureau of Statistics.

(d) Internal Trade Branch, Dominion Bureau of Statistics.

(e) Labour Department; 8 trades 1925-1926; 9 trades from 1927 to 1942; 15 cities to 1927; 14 cities to 1930, hereafter 31 to 42 cities.

Table 8 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY KINDS AND BY PROVINCES, 1941 and 1942

Province		Granite (a)	Limestone (b)	Marble	Sandstone	Slate	TOTAL
1941							
Nova Scotia	tons	410	46,973	...	66,219	...	113,602
	\$	30,537	69,501	...	169,507	...	269,545
New Brunswick ..	tons	1,529	131,941	...	4,678	...	138,148
	\$	63,184	274,000	...	10,680	...	347,864
Quebec	tons	316,372	3,370,875	10,809	76,928	346	3,775,530
	\$	866,182	2,567,422	92,916	82,701	346	3,609,567
Ontario	tons	152,426	3,353,856	6,540	13,420	...	3,526,242
	\$	388,325	2,832,056	30,365	27,190	...	3,277,936
Manitoba	tons	244	38,103	...	...	...	38,347
	\$	4,155	60,743	...	...	...	64,898
Alberta	tons	...	7,942	...	...	...	7,942
	\$	...	24,303	...	...	...	24,303
British Columbia	tons	129,941	201,359	300	8,640	950	341,190
	\$	146,403	229,702	2,800	15,650	12,216	406,771
CANADA	tons	600,922	7,151,049	17,649	169,885	1,296	7,940,801
	\$	1,498,786	6,057,727	126,081	305,528	12,562	8,000,684

Table 8 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY KINDS AND BY PROVINCES, 1941 and 1942
(Concluded)

Province		Granite (a)	Limestone (b)	Marble	Sandstone	Slate	TOTAL
1942							
Nova Scotia	tons	429	185,232	...	45,856	...	229,517
	\$	41,935	645,680	...	76,502	...	764,167
New Brunswick ..	tons	964	82,623	...	4,550	...	87,937
	\$	29,554	281,296	...	10,650	...	321,280
Quebec	tons	1,178,765	2,926,964	9,429	72,894	158	4,188,210
	\$	1,449,840	2,565,029	58,714	92,724	158	4,166,465
Ontario	tons	90,530	2,992,885	4,295	18,835	...	3,106,545
	\$	288,828	2,636,451	27,675	33,004	...	2,985,938
Manitoba	tons	153	45,555	...	...	...	45,488
	\$	2,452	69,514	...	...	...	71,966
Alberta	tons	...	12,028	...	...	...	12,028
	\$	...	40,436	...	...	...	40,436
British Columbia	tons	95,604	199,496	100	13,930	1,211	310,341
	\$	155,810	230,139	1,820	13,930	16,643	596,342
CANADA	tons	1,566,425	6,442,583	13,824	155,865	1,369	7,978,066
	\$	1,946,249	6,468,525	88,209	226,810	16,801	8,746,594

(a) All igneous rocks included.

(b) Includes dolomite, also marl for agricultural purposes.

NOTE: Not included in the above limestone statistics are 2,155,750 tons of limestone consumed in the cement industry in 1942 and 2,086,781 tons in 1941. Limestone used in the Canadian lime industry is also not included; it is estimated that approximately 1,574,508 tons of limestone were burned in the manufacture of lime in 1942 and 1,530,200 tons in 1941.

Table 9 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY PROVINCES, SHOWING PURPOSES FOR WHICH USED, 1942 (x)

For use as follows:		Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
1942									
Building stone—Rough	tons	333	32	10,616	3,070	...	...	1,633	15,684
	\$	2,709	480	33,024	15,905	...	...	3,398	55,516
Dressed ...	tons	...	690	5,088	2,475	960	...	...	9,213
	\$	...	30,978	180,125	78,062	17,100	...	...	308,285
Monumental and ornamental	tons	30	126	5,663	53	...	...	1,039	6,911
stone—Rough	\$	300	4,092	83,867	1,349	...	...	10,752	100,360
Dressed	tons	399	...	3,188	...	188	...	270	4,045
	\$	41,685	...	269,088	...	5,002	...	45,197	360,272
Flagstone	tons	...	10	22	1,081	152	...	...	1,265
	\$	...	50	62	5,677	850	...	...	6,639
Curbstone	tons	...	...	5,571	...	...	...	...	5,571
	\$	...	...	28,781	...	...	...	...	28,781
Paving blocks	tons	...	...	2,008	25	...	...	...	2,033
	\$	...	...	12,776	280	...	...	...	13,056
Lining open-hearth furnaces	tons	...	...	...	20,311	...	...	...	20,311
	\$	...	...	...	15,238	...	...	...	15,238
Chemical -									
Flux in iron and steel	tons	143,054	6	2,138	428,752	4,813	1,849	761	581,373
furnaces	\$	556,544	9	1,817	346,460	8,149	4,947	2,315	920,241
Flux in non-ferrous	tons	...	...	91	115,895	...	...	62,051	178,037
smelters .....	\$	...	...	209	83,991	...	...	38,842	123,042
Glass factories	tons	...	...	1,177	...	...	3,358	...	4,535
	\$	...	...	5,483	...	...	4,197	...	9,680
Manufactured magnesium ..	tons	...	...	...	5,267	...	...	...	5,267
	\$	...	...	...	3,051	...	...	...	3,051

Table 9 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY PROVINCES, SHOWING PURPOSES FOR WHICH USED, 1942 (x) - (Concluded)

For use as follows:		Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
<u>1942 - (Con.)</u>									
Chemical (Con.) -									
Pulp and paper mills	tons	3,142	6,359	116,095	51,414	1,892	...	49,112	207,994
	\$	12,792	14,054	146,544	85,568	2,081	...	70,114	530,955
Sugar refineries	tons	...	28	...	12,175	7,755	...	...	19,956
	\$	...	153	...	10,554	10,840	...	...	21,527
Other chemical uses	tons	...	...	726	245,595	...	...	40	244,149
	\$	...	...	1,274	244,925	...	...	560	246,559
Pulverized Stone -									
Whiting (substitute)	tons	...	...	...	5,655	...	...	507	5,942
	\$	...	...	...	19,988	...	...	5,684	25,682
Asphalt filler	tons	575	...	7,065	4,452	...	...	1,455	15,545
	\$	4,600	...	28,792	15,041	...	...	8,180	56,615
Dusting coal mines	tons	...	...	...	...	...	1,547	551	1,698
	\$	...	...	...	...	...	5,388	2,569	7,757
Agricultural purposes and fertiliser plants	tons	50,768	71,025	154,958	22,205	1,518	1,950	5,762	286,184
	\$	65,615	281,664	245,064	48,755	1,897	7,800	14,405	641,200
Other uses	tons	...	...	50	7,741	1,958	91	20	9,820
	\$	...	...	150	24,790	1,806	564	220	27,550
Crushed stone for manufac- ture of artificial stone.									
	tons	...	...	127	259	...	...	...	566
	\$	...	...	616	952	...	...	...	1,570
Roofing granules	tons	...	...	...	55,512	...	...	842	56,554
	\$	...	...	...	182,541	...	...	15,512	198,055
Poultry grit	tons	...	...	1,168	5,197	110	5,450	698	8,801
	\$	...	...	4,958	19,245	880	17,890	5,866	46,609
Stucco dash	tons	...	...	875	...	81	5	869	1,826
	\$	...	...	5,555	...	555	60	10,240	16,008
Terrazzo chips	tons	...	...	1,584	1,572	...	...	...	2,956
	\$	...	...	8,969	9,206	...	...	...	18,195
Rock wool	tons	...	...	...	9,942	...	...	...	9,942
	\$	...	...	...	9,799	...	...	...	9,799
Rubble and riprap	tons	4,495	7,784	286,896	82,722	290	...	50,561	412,528
	\$	6,607	6,552	198,475	91,942	590	...	26,550	550,274
Crushed stone -									
Concrete aggregate	tons	26,769	1,680	2,488,006	406,889	...	...	1,595	2,924,757
	\$	44,789	2,940	2,050,117	545,257	...	...	1,254	2,424,557
Road metal	tons	19,952	237	902,109	1,191,873	20,288	...	141,247	2,275,706
	\$	50,526	568	757,887	982,526	19,192	...	127,574	1,877,475
Railroad ballast	tons	...	...	195,015	472,867	3,505	...	15,950	685,517
	\$	...	...	145,254	585,226	5,424	...	15,950	527,814
TOTAL CANADA									
	tons	229,517	67,957	4,188,210	5,106,545	45,488	12,028	510,541	7,978,066
	\$	764,167	521,280	4,166,465	2,985,958	71,966	40,456	596,542	8,748,594
Per cent of total ...									
Quantity		2.88	1.10	52.50	58.94	0.55	0.15	5.88	100.00
Value		8.74	5.67	47.64	54.14	0.82	0.46	4.55	100.00

(x) Includes the production of slate and marl.

Stone

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Table 10 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY KINDS, SHOWING PURPOSES FOR WHICH USED, 1941 and 1942

For use as follows:		Granite (a)	Limestone (b)	Marble	Sandstone	Slate	TOTAL
<u>1 9 4 1</u>							
Building stone—Rough	tons	2,589	15,687	61	1,902	...	20,239
	\$	11,248	36,557	5,036	9,584	...	60,425
Dressed	tons	15,772	19,455	422	374	...	34,023
	\$	284,805	241,298	51,535	15,016	...	592,654
Monumental and ornamental stone -							
Rough	tons	7,260	148	24	...	...	7,432
	\$	81,075	434	798	...	...	82,307
Dressed	tons	4,925	52	...	20	...	4,997
	\$	291,645	2,539	...	400	...	294,382
Flagstone	tons	150	1,459	...	927	...	2,536
	\$	536	2,625	...	5,474	...	8,435
Curbstone	tons	3,579	70	...	31	...	3,480
	\$	14,485	42	...	207	...	14,732
Paving blocks	tons	2,106	...	...	...	...	2,106
	\$	16,951	...	...	...	...	16,951
Lining open-hearth furnaces	tons	...	29,124	...	...	...	29,124
	\$	...	20,895	...	...	...	20,895
Chemical -							
Flux in iron and steel furnaces	tons	...	254,998	...	...	...	254,998
	\$	...	222,916	...	...	...	222,916
Flux in non-ferrous smelters ..	tons	...	275,918	...	...	...	275,918
	\$	...	178,543	...	...	...	178,543
Glass factories	tons	...	2,605	899	...	...	3,504
	\$	...	5,256	5,428	...	...	6,684
Pulp and paper mills	tons	...	240,051	534	...	...	240,365
	\$	...	305,023	668	...	...	305,691
Sugar refineries	tons	...	6,219	...	...	...	6,219
	\$	...	8,024	...	...	...	8,024
Other chemical uses	tons	...	184,686	...	...	...	184,686
	\$	...	167,716	...	...	...	167,716
Pulverized Stone -							
Whiting (substitute)	tons	...	5,481	...	...	...	5,481
	\$	...	51,907	...	...	...	51,907
Asphalt filler	tons	425	18,465	5,240	...	65	24,191
	\$	1,855	82,089	9,956	...	504	74,184
Dusting coal mines	tons	...	1,894	...	...	...	1,894
	\$	...	8,472	...	...	...	8,472
Agricultural purposes and	tons	...	216,857	480	...	...	217,157
fertiliser plants .....	\$	...	453,548	840	...	...	454,388
Other uses	tons	...	12,871	857	...	...	13,708
	\$	...	57,278	4,267	...	...	41,545
Crushed stone for manufacture of	tons	...	...	862	...	...	862
artificial stone .....	\$	...	...	5,711	...	...	3,711
Roofing granules	tons	14,274	887	...	...	887	16,048
	\$	143,328	2,405	...	...	11,712	157,445
Poultry grit	tons	2	3,912	2,195	...	...	6,109
	\$	90	16,397	10,909	...	...	27,396
Stucco dash	tons	5	2,697	1,412	...	...	4,114
	\$	115	14,958	9,018	...	...	24,091
Terrazzo chips	tons	...	896	4,131	...	...	5,027
	\$	...	2,688	26,049	...	...	28,737
Rock wool	tons	...	8,313	...	...	...	8,313
	\$	...	8,339	...	...	...	8,339
Bubble and riprap	tons	118,328	414,827	410	47,678	346	581,589
	\$	85,212	232,741	1,638	47,236	346	367,175

Stone

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Table 10 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY KINDS, SHOWING PURPOSES FOR WHICH USED, 1941 and 1942 - (Continued)

For use as follows:		Granite (a)	Limestone (b)	Marble	Sandstone	Slate	TOTAL
<u>1941 (Con.)</u>							
Crushed stone -							
Concrete aggregate	tons	178,811	2,350,850	...	52,122	...	2,581,583
	\$	214,956	1,646,057	...	123,213	...	1,988,226
Road metal	tons	254,171	2,647,797	342	58,303	...	2,958,613
	\$	552,578	2,058,206	228	95,579	...	2,484,593
Railroad ballast	tons	925	455,052	...	10,528	...	448,505
	\$	555	510,974	...	10,819	...	522,548
TOTAL CANADA (b)	tons	600,922	7,151,049	17,649	169,885	1,296	7,940,801
	\$	1,498,786	6,057,727	126,081	305,528	12,562	8,000,684
<u>1942</u>							
Building stone—Rough	tons	2,354	11,818	214	1,298	...	15,684
	\$	12,540	25,250	10,692	7,054	...	55,516
Dressed	tons	2,497	6,230	146	540	...	9,213
	\$	108,807	169,582	19,476	8,600	...	306,265
Monumental and ornamental stone -							
Rough	tons	6,858	...	53	...	...	6,911
	\$	99,011	...	1,349	...	...	100,360
Dressed	tons	5,827	218	...	...	...	4,045
	\$	556,459	4,513	...	...	...	560,972
Flagstone	tons	...	223	...	1,042	...	1,265
	\$	...	1,276	...	5,363	...	6,639
Curbstone	tons	5,571	...	...	...	...	5,571
	\$	28,781	...	...	...	...	28,781
Paving blocks	tons	2,008	...	...	25	...	2,033
	\$	12,776	...	...	280	...	13,056
Lining open-hearth furnaces	tons	...	20,311	...	...	...	20,311
	\$	...	15,258	...	...	...	15,258
Chemical -							
Flux in iron and steel furnaces	tons	...	581,373	...	...	...	581,373
	\$	...	920,241	...	...	...	920,241
Flux in non-ferrous smelters ..	tons	...	178,037	...	...	...	178,037
	\$	...	123,042	...	...	...	123,042
Glass factories	tons	...	3,558	1,177	...	...	4,555
	\$	...	4,197	5,483	...	...	9,680
Manufacture of magnesium	tons	...	5,267	...	...	...	5,267
	\$	...	3,051	...	...	...	3,051
Pulp and paper mills	tons	...	207,994	...	...	...	207,994
	\$	...	350,933	...	...	...	350,933
Sugar refineries	tons	...	19,956	...	...	...	19,956
	\$	...	21,527	...	...	...	21,527
Other chemical uses	tons	...	236,812	1	7,336	...	244,149
	\$	...	257,681	5	8,873	...	266,559
Pulverized Stone -							
Whiting (substitute)	tons	...	3,942	...	...	...	3,942
	\$	...	23,682	...	...	...	23,682
Asphalt filler	tons	...	13,494	...	...	51	13,545
	\$	...	56,205	...	...	408	56,613
Dusting coal mines	tons	...	1,698	...	...	...	1,698
	\$	...	7,757	...	...	...	7,757
Agricultural purposes and	tons	...	285,924	20	...	240	286,184
fertilizer plants .....	\$	...	639,182	98	...	1,920	641,200
Other uses	tons	...	9,570	250	...	...	9,820
	\$	...	25,960	1,370	...	...	27,330

Table 10 - PRODUCTION (SALES) OF STONE FROM CANADIAN QUARRIES, BY KINDS, SHOWING PURPOSES FOR WHICH USED, 1941 and 1942 - (Concluded)

For use as follows:		Granite (a)	Limestone (b)	Marble	Sandstone	Slate	TOTAL
<u>1942 (Con.)</u>							
Crushed stone for manufacture of	tons	...	239	127	...	...	366
artificial stone .....	\$	...	952	618	...	...	1,570
Roofing granules	tons	35,204	310	...	...	840	36,354
	\$	181,352	1,240	...	...	15,461	196,053
Poultry grit	tons	8	5,326	5,445	...	27	8,801
	\$	70	26,433	19,782	...	324	46,609
Stucco dash	tons	6	814	953	...	53	1,826
	\$	80	8,445	6,953	...	530	16,008
Terrazzo chips	tons	...	443	2,513	...	...	2,956
	\$	...	1,329	16,866	...	...	18,195
Rock wool	tons	...	9,942	...	...	...	9,942
	\$	...	9,799	...	...	...	9,799
Rubble and riprap	tons	83,966	289,188	4,925	34,291	158	412,528
	\$	51,201	234,940	5,517	38,458	158	330,274
Crushed stone -							
Concrete aggregate	tons	1,051,168	1,818,625	...	54,944	...	2,924,737
	\$	897,444	1,444,013	...	82,900	...	2,424,357
Road metal	tons	171,228	2,063,819	...	40,659	...	2,275,706
	\$	196,102	1,619,999	...	61,372	...	1,877,473
Railroad ballast	tons	1,735	667,652	...	13,930	...	683,317
	\$	1,626	512,258	...	13,930	...	527,814
TOTAL CANADA (b)	tons	1,366,425	6,442,583	13,824	153,865	1,369	7,978,066
	\$	1,946,249	6,468,525	88,209	226,810	16,801	8,746,594

(a) Includes all igneous rock.

(b) Does not include limestone used in Canadian lime and cement industries but includes marl used for agricultural purposes.

GRANITE

Table 11 - PRODUCTION OF GRANITE(x) IN CANADA, 1935-1942

Year	Short tons	\$	Year	Short tons	\$
1935	258,723	679,585	1938	705,307	1,379,417
1936	200,285	781,759	1939	1,102,395	2,119,501
1937	326,554	1,126,287	1940	1,147,747	1,884,410
1938	941,743	1,319,313	1941	600,922	1,493,786
1939	1,135,099	1,827,433	1942	1,366,425	1,946,249

(x) Includes all igneous rock.

The following abstracts are from a report on granite prepared by the Bureau of Mines, Ottawa:

"The stone quarried in this industry consists of granite and related crystalline igneous rocks used for building, decorative, ornamental, or constructional purposes. Producing properties are situated in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, and British Columbia. Large areas in Canada are underlain by granite, and the prospects of finding stone suitable for its various uses are good.

"The industry in the Maritime Provinces was comparatively quiet in 1942. No new deposits were opened and production came from the well-established firms.

"Quebec furnishes most of the granite for building, the Stanstead, St. Samuel, Lake St. John, and Rivière-a-Pierre districts being the leading producers. The low ebb of building construction during the past few years has seriously affected this branch of the industry. The Silver Granite Company continued

its operations in the Lake St. John district. Material from quarries in Quebec was made use of in the past few years in a number of Canada's public buildings, including the Supreme Court Building, Ottawa, the Ottawa Post Office, and several structures in British Columbia. It was also used in the construction of the T. Eaton Company's stores in Port Arthur and Edmonton.

"A red granite of medium to coarse texture and of a uniform mixture has recently been developed near Coe Hill, Ontario, by Upper Canada Granite Quarries, Limited, and this deposit was being exploited with a view to supplying the domestic and export markets for monumental and building stock. It has been closed for the duration.

"Prospecting for granite deposits suitable for building and monumental use has been active in Manitoba, and several deposits of red granite of various shades have been located, but so far little development has taken place.

"Granite for monumental use is produced in the Maritime Provinces and in Quebec, Ontario, Manitoba, and British Columbia, and is finding a small but steadily increasing market. Early in 1939 an appreciable amount of foreign stone, principally of the black and red varieties, was imported mainly from Finland and Sweden, but this source of supply is now cut off. Black granite has been quarried in Canada, notably in the vicinity of Lake St. John, Quebec, and from quarries along the north shore of Lake Superior, and stone from these areas should find a ready market for monumental use. Other deposits of 'black granite' in the Maritime Provinces, Quebec, Ontario, and Manitoba show promise of yielding stone of good quality.

"Granite is used for building purposes mainly in large buildings, such as public and semi-public structures and institutions.

"Much of the granite produced in Canada is used for foundations for highways; for the permanent ballasting of railway roadbeds; for heavy aggregate in large concrete structures; for the filling of breakwaters; and for bridge piers. The market curtailment of such operations during the past several years has seriously affected production. Production is far below the record years.

"Some granite is being imported from the United States for monumental use, but these imports are likely in time to be replaced by Canadian material. The demand for stone for monumental use varies, and a variety which has enjoyed a steady market for a number of years may later be completely superseded by another variety. At present, the so-called 'black granite' and the 'grey' varieties seem to be in most demand for monuments, although the various shades of reds are still popular in many districts.

"Now that shipments from the Scandinavian countries to the United States and to Canada have been discontinued, Canadian producers would be well advised to give careful study to the market possibilities of a monumental stock, especially for the black and red varieties.

"In the building trade, coloured granites are being used to an increasing extent in the form of thin polished slabs for trim for buildings in which the main colour scheme calls for contrast.

"Canadian granites are suitable for all the purposes for which granite is used, and with persistent advertising there is no reason why this industry should not have a flourishing future."

LIMESTONE

Table 12 - PRODUCTION OF LIMESTONE(x) IN CANADA, 1933-1942

Year	Short tons	\$	Year	Short tons	\$
1933	2,572,911	2,142,516	1938	4,288,507	3,864,619
1934	3,747,779	3,157,852	1939	4,149,589	3,817,551
1935	3,651,665	3,253,573	1940	6,108,591	5,126,075
1936	3,751,548	3,143,872	1941	7,151,049	6,057,727
1937	5,542,806	4,673,942	1942	6,442,583	6,468,525

(x) Includes dolomite and marl; production of marl in 1942 totalled 23,026 tons.

The following abstracts are from a report prepared by the Bureau of Mines, Ottawa:

"Limestone is available in great bedded formations and in massive highly metamorphosed deposits, the former being much more common and yielding most of the production. At present almost all Canadian limestone is won by open pit methods, though underground mining of the rock has been adopted by several companies producing limestone for chemical and metallurgical uses and for making lime. Underground mining will undoubtedly become more common, particularly for the production of high-grade stone for chemical use, as the readily accessible parts of deposits become worked out.

"Of significance in connection with future production of pure limestone is the progress being made in beneficiation, whereby siliceous material is in part removed from limestone by flotation. This method of purifying limestone is now in use at several Portland cement plants in various parts of the world.

"For domestic use limestone is marketed in a variety of forms ranging from huge squared blocks of dimension stone used in construction, to extremely fine dust used chiefly as a mineral filler. Some of the products are processed little if at all from the condition in which the rock is obtained from the quarry (as for example limestone used in the wood pulp industry), but the bulk of the output is crushed and screened for use as road metal, concrete aggregate, railroad ballast, and as flux in metallurgical plants. Large quantities are used in the manufacture of Portland cement, lime, and various chemical products. Argillaceous dolomite is used in the manufacture of rock wool.

"Pure dolomite is now an important source of magnesia and magnesium metal. In the calcined state it is used for precipitating magnesia from sea water and from magnesium chloride brines, the magnesia content of the dolomite itself being recovered at the same time. It is also the raw material in several processes in which the magnesia of the dolomite alone is recovered. The magnesia so obtained may be used for the making of magnesium metal as well as for various other purposes for which magnesia is used. Magnesium metal is also recovered directly from calcined dolomite by reduction with ferrosilicon.

"A use for limestone that is capable of enormous development is in agriculture. Though the necessity of applying limestone or lime to agricultural land in order to maintain or increase soil fertility has been emphasised for many years by authorities on agriculture, the quantity so used in Canada is still very small, whereas if the proper quantity were applied it would constitute one of the principal outlets for limestone.

"Limestone in blocks of large dimensions for sawing into building stone is quarried in Quebec, Ontario, and Manitoba. In Quebec, quarries at St. Marc des Carrières, Portneuf county, produce grey limestone, and several in and near Montreal yield limestone of similar colour. In Ontario, two quarries near Queenston in the Niagara peninsula yield silver-grey limestone as well as small quantities of buff and of variegated buff and grey. At Longford Mills, near Orillia, buff, silver-grey, and brown limestone for use as marble and as building stone is available, but has not been quarried for the past several years. The Manitoba quarries are near Tyndall and yield mottled buff, mottled grey, and mottled variegated limestone. Besides these large quarries, the products of which have a wide shipping range, small quarries producing building stone for local use are worked near Quebec City, Montreal, and Hull in Quebec; and at Ottawa, Kingston, and Warton in Ontario. Rubble is their chief product.

"Some of the quarry companies market stone in all stages of manufacture, from the mill block to elaborately carved material; others sell stone only in the mill block. Waste material is utilized for crushed stone, rubble, riprap, flagging, chemical and metallurgical purposes, and for lime manufacture.

"There were no developments of importance in 1942. Although building construction is active owing to defence needs, most of the buildings are of the factory type and require little cut stone; thus, the building-stone industry is relatively inactive and a number of the quarries are either shut down or operated only for a short time each year.

"The limestone deposits being worked for building stone are favourably situated in respect to centres of population and the supply of stone is adequate for present and future demands.

"Prices of limestone in the mill block f.o.b. quarry have remained almost stationary in recent years, and range from 50 cents to \$1 per cubic foot, depending on the size of block and grade of stone."

MARBLE

Table 13 - PRODUCTION OF MARBLE IN CANADA, 1933-1942

Year	Short tons	\$	Year	Short tons	\$
1933	10,897	65,915	1938	19,575	87,274
1934	13,783	69,475	1939	14,124	200,054
1935	15,975	85,569	1940	15,759	75,509
1936	22,866	169,698	1941	17,649	128,081
1937	21,642	88,595	1942	15,824	88,209

The following abstracts are from a report prepared by the Bureau of Mines, Ottawa:

"Marble quarries are operated in Quebec, Ontario, Manitoba, and British Columbia. The products include squared blocks for sawing into slabs and for making monuments, and broken marble for rubble and for making terrazzo, stucco dash, whiting substitute, marble flour and artificial stone. Waste from some of the quarries is sold for chemical uses and for road metal.

"In Quebec, several varieties of clouded grey marble and also a black marble are quarried at Philipsburg by Missisquoi Stone and Marble Company, Limited. Some brown marble used for counters and wainscoting is obtained from the building stone quarries in the Trenton limestones at St. Marc des Carrieres, Portneuf county. Dolomitic white marble is quarried and crushed by White Grit Company at Portage de Fort, Pontiac county, and by Canada Marble and Lime Company at l'Annonciation, Labelle county, for the making of terrazzo chips, stucco dash, poultry grit, artificial stone, and for chemical and ceramic uses. A small quantity of dark red marble has been quarried at Cap St. Martin near Montreal, chiefly for making tombstones.

"In Ontario, black marble in beds up to 40 inches thick is quarried at St. Albert, near Ottawa, by Silverstone Black Marble Quarries, Limited. White marble is quarried at Marmora by Bonter Marble and Calcium Company, Limited, and at Haliburton by Bolander Brothers for making terrazzo chips, poultry grit, stucco dash, and artificial stone. Buff, red, white, green, and black marbles are quarried north of Madoc by Karl Stockloser and by Connolly Marble, Mosaic and Tile Company, Limited for use as terrazzo.

"In Manitoba, a number of highly coloured marbles are available, but there is only a small production to supply terrazzo chips and building rubble.

"In British Columbia there are many deposits of marble, but there is only a small production of white marble near Victoria and on Texada Island for use as terrazzo, poultry grit, marble sand, and whiting substitute.

"Many known deposits of beautifully coloured marbles have never been fully investigated, chiefly because the present demand in Canada for marble of any one colour, other than for a staple variety, such as white, is comparatively small.

"The war has adversely affected the Canadian marble industry, for though construction activity is again at a high level, most of the buildings erected are of the industrial type in which little or no standing marble is used.

"The Canadian market calls for interior decorative marble almost entirely, and very little is used for the exteriors of buildings. A considerable quantity is, however, used for tombstones.

"There is a wide range in the price of marble depending on quality and rareness of colouring, but these prices are as a rule governed by those of European marbles of similar kind, most of which, in peacetime, enjoy a world-wide market, whereas the markets for marble produced on this continent are mostly domestic".

SANDSTONE

Table 14 - PRODUCTION OF SANDSTONE IN CANADA, 1933-1942

Year	Short tons	\$	Year	Short tons	\$
1933	99,043	108,562	1938	101,854	218,405
1934	115,169	145,283	1939	176,265	331,830
1935	342,824	838,005	1940	176,475	305,543
1936	285,508	495,856	1941	169,895	305,528
1937	235,165	343,871	1942	153,865	236,810

Canadian sandstone has been utilized extensively in the construction of many important public buildings in Canada and is finding increasing favour as a material in the construction of the better type home. The rock occurs in Canada in a variety of colours, including white, reddish brown, yellow and grey. Shipments of sandstone were made in 1942 from quarries located in all of the provinces with the exception of Prince Edward Island, Manitoba and Saskatchewan.

The greater part of the crude output in 1942 was employed as rubble and riprap and in the crushed state for concrete, highway construction and railroad ballasting. Sandstone in British Columbia, New Brunswick and Nova Scotia has been employed in the manufacture of abrasive wheels and sharpening stones; such production is included with natural abrasives manufacture. Crude, crushed or ground quartzite sold for fluxing purposes or as silica sand is included under quartz as production.

SLATE

Table 15 - PRODUCTION OF SLATE IN CANADA, 1933-1942

Year	Short tons	\$	Year	Short tons	\$
1933	250	3,750	1938	979	6,311
1934	758	4,802	1939	1,149	6,760
1935	1,129	4,329	1940	1,113	7,522
1936	1,247	5,414	1941	1,296	12,562
1937	900	5,519	1942	1,369	16,801

Canadian slate production in 1942 came entirely from the provinces of Quebec and British Columbia and represented shipments of the stone in the form of granules for roofing purposes, riprap and asphalt filling. No Canadian deposits of slate suitable for the production of high grade roofing slates or shingles have been reported as being under development in recent years.

Table 16 - PRODUCTION OF STONE FOR BUILDING PURPOSES, CHEMICAL USE, CEMENT MANUFACTURE, CONCRETE AGGREGATE, ROAD METAL AND RAILROAD BALLAST, 1934-1942

	Building stone(a)	For chemical purposes(b)	For concrete aggregate	For road metal	For railroad ballast	For cement manufacture
1934	tons 32,665	409,580	821,099	2,062,487	345,802	805,546
	\$ 490,095	447,429	608,240	1,668,927	209,296	...
1935	tons 200,899	537,799	804,719	1,976,363	351,302	818,443
	\$ 1,258,741	483,709	523,847	1,987,351	211,993	...
1936	tons 42,535	615,207	1,014,145	1,903,927	784,081	1,180,358
	\$ 714,616	553,597	730,617	1,653,134	659,656	...
1937	tons 49,098	693,947	1,497,655	3,169,136	642,248	1,465,168(c)
	\$ 746,570	626,297	1,214,181	2,522,080	570,606	...
1938	tons 49,666	551,737	981,739	2,721,922	86,019	1,358,689(d)
	\$ 725,402	468,000	791,971	2,347,010	58,816	...
1939	tons 71,288	577,278	1,344,636	2,131,306	600,266	1,407,099(d)
	\$ 1,344,340	525,579	1,109,028	1,773,337	522,882	...
1940	tons 97,336	725,685	2,675,078	2,300,613	896,408	1,784,291(d)
	\$ 722,514	681,796	2,171,487	1,885,744	741,772	...
1941	tons 54,262	965,690	2,581,583	2,958,613	446,505	2,113,616(d)
	\$ 655,077	889,574	1,986,226	2,484,593	322,348	...
1942	tons 24,897	1,236,044	2,924,737	2,275,706	683,317	2,186,248(d)
	\$ 361,781	1,651,982	2,424,557	1,877,473	527,814	...

(a) Does not include monumental or ornamental stone. (b) Does not include limestone used in Canadian lime industry. (c) Includes shale. (Includes 13,821 tons shale in 1938; 27,241 tons in 1939; 18,347 in 1940; 28,857 in 1941 and 30,498 in 1942.

WHITING SUBSTITUTE

(Bureau of Mines, Ottawa)

Whiting substitute, as the name implies, is a material that may be used in place of chalk whiting, all of which originates in England or in Europe. It may be made from white limestone or white marble, marl, lime, or the waste calcium carbonate sludge resulting from the manufacture of caustic soda.

The products made from white marble or white limestone are pulverized to various degrees of fineness ranging from 200 to 400 mesh, and the raw material used contains very little magnesium carbonate, though in the past a whiting substitute made from white dolomite was produced in Eastern Canada for making putty.

The principal differences between whiting made from chalk, and whiting substitute made from marble or limestone are that the latter is usually whiter, has a low capacity for absorbing oil, and the individual particles are sub-angular rather than rounded. Most of the whiting substitute made in Canada is made from white marble.

Marl suitable for making whiting substitute should be white or nearly so, be nearly free from grit and clayey material, and have a very low content of organic matter. This last-named constituent, which is present to some extent in all deposits of marl, renders the product unsuitable for use as a filler in products, such as putty and paint where it will come in contact with oils. The oil-absorptive capacity of whiting substitute made from marl is usually greater than that of whiting, but in other respects the physical characteristics of the two products are much the same. Two plants are engaged in making whiting substitute from marl.

Calcium carbonate filler, a product closely akin to whiting substitute and made by introducing carbon dioxide gas into milk-of-lime made from high-calcium quicklime, has been produced in Canada for the past several years. Its use up to the present has been as a filler in newsprint, book, and magazine paper, and its manufacture has been undertaken by the paper companies using it.

By-product precipitated chalk, made from waste sludge resulting from the manufacture of caustic soda from soda ash and lime, is classed as a whiting substitute, but its usefulness is restricted by the fact that it almost invariably contains a small amount of free alkali. The raw materials for the manufacture of by-product precipitated chalk are available but it is not yet being made in Canada.

Producers of whiting substitute are Pulverized Products, Limited, Montreal; Claxton Manufacturing Company, Toronto; White Valley Chemicals, Limited, Toronto; Marlhill Mines, Limited, Marlbank, Ontario; Gypsum, Lime and Alabastine, Canada, Limited, Winnipeg; and Beale Quarries, Limited, Van Anda, Texada Island, British Columbia.

The industry has experienced a steady growth in recent years because improvements in grinding equipment and the maintenance of close technical control have enabled products to be marketed that are very consistent in chemical and physical properties. Many manufacturers now use the domestic products with entire satisfaction in place of imported whiting and with all European sources of whiting cut off because of the war, the domestic industry is largely supplying the Canadian market.

Whiting substitute made in Canada is used mostly in the manufacture of oilcloth, linoleum, in certain kinds of rubber products, in putty, in explosives, and as a filler in newsprint, book, and magazine paper. In lesser quantities it is used in the manufacture of moulded articles, cleaning compounds and polishes, as a ceramic glaze and for a number of other purposes.

Prices per ton, bagged and in carload lots range from \$8.00 to \$15.00 per ton f.o.b. plants.

2. SECONDARY PRODUCTIONTHE STONE PRODUCTS INDUSTRY, 1942

In 1942 there were 174 stone dressing works whose operations were reported separately from the quarries. These plants were engaged chiefly in cutting or polishing Canadian or imported stone to produce finished monuments or cut and dressed stone for construction purposes. Retail establishments engaged only in selling and lettering monuments have not been included. Five producers of rock wool were also included in this industry.

Output from this industry was valued at \$3,939,764 in 1942, an increase of 1.4 per cent over the total of \$3,883,496 reported for the previous year. The 74 works in Ontario accounted for 62.1 per cent of the total output and the 49 plants in Quebec for 21.7 per cent. The average number of employees was 925 and \$1,267,582 were paid in salaries and wages. Materials used in the cutting and dressing processes, including stone, cost \$1,423,387 and expenditures for fuel and electricity amounted to \$147,972.

Table 17 - PRINCIPAL STATISTICS OF THE STONE PRODUCTS INDUSTRY, 1931-1942

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1931	223	6,880,855	1,438	2,145,023	136,135	1,770,559	5,989,372
1932	206	5,828,109	1,005	1,200,214	108,053	928,572	2,961,914
1933	212	5,481,171	821	841,425	87,562	691,525	2,162,650
1934	218	5,194,702	881	886,809	90,874	854,323	2,407,474
1935	222	5,180,887	1,066	1,174,229	107,836	1,010,999	3,079,118
1936	227	5,766,508	1,245	1,257,808	127,151	1,070,902	3,309,911
1937	229	5,213,451	1,159	1,352,586	122,209	1,142,885	3,371,242
1938	234	5,172,014	1,261	1,560,931	138,259	1,271,650	3,902,774
1939	190	4,931,636	1,257	1,458,780	139,438	1,259,547	3,805,989
1940	182	4,697,903	1,061	1,236,325	135,417	1,183,112	3,592,623
1941	173	4,297,208	987	1,293,534	137,842	1,244,013	3,883,496
1942	174	3,907,496	925	1,267,582	147,972	1,423,387	3,939,764
Per cent change							
1942 from 1941.	...	-9.1	-6.5	-2.5	+7.5	+14.4	+1.4

NOTE: Profits or losses cannot be calculated from the above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 18 - PRINCIPAL STATISTICS OF THE STONE PRODUCTS INDUSTRY, BY PROVINCES, 1941 and 1942

Province	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
Prince Edward Island	1)						
New Brunswick	5)	97,713	30	31,634	3,205	18,752	95,322
Nova Scotia	9	105,955	31	33,713	3,938	31,227	102,886
Quebec	40	1,093,733	214	252,604	22,292	309,060	761,881
Ontario	77	2,352,811	550	794,841	93,099	774,692	2,477,466
Manitoba	14	144,562	52	50,774	5,454	37,636	116,968
Saskatchewan	9	136,763	31	42,508	3,143	30,167	114,460
Alberta	6	228,374	39	42,131	3,415	26,051	110,405
British Columbia ...	12	137,297	40	48,328	3,296	16,428	104,111
CANADA	173	4,297,208	987	1,296,534	137,842	1,244,013	3,883,496
1 9 4 2							
Prince Edward Island	1)						
New Brunswick	5)	94,825	28	32,938	3,386	21,615	98,690
Nova Scotia	7	82,639	27	27,797	3,287	27,514	95,984
Quebec	49	928,030	226	278,291	32,056	376,964	855,421
Ontario	74	2,189,084	496	751,679	93,208	892,455	2,447,489
Manitoba	14	175,997	46	47,866	4,786	38,895	115,421
Saskatchewan	9	105,858	32	44,079	4,519	30,199	108,151
Alberta	5	224,216	39	48,067	3,632	22,429	128,592
British Columbia ...	10	108,847	29	36,665	3,298	13,516	90,016
CANADA	174	3,907,496	925	1,267,582	147,972	1,423,387	3,939,764

Table 19 - CAPITAL EMPLOYED IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942 (On the last day of the year)

Province	Present value of land, build- ings, fixtures, machinery and tools	Value of Inventories		Cash, bills and accounts receiv- able, prepaid expenses, etc.	TOTAL CAPITAL EMPLOYED
		Materials, fuel and other sup- plies on hand and stocks in process	Finished goods on hand		
	\$	\$	\$	\$	\$
<u>1 9 4 1</u>					
Prince Edward Island)	42,791	14,764	17,413	22,745	97,713
New Brunswick	56,087	11,153	7,495	31,220	105,955
Nova Scotia	733,849	138,467	92,087	129,330	1,093,733
Quebec	1,473,550	287,543	206,515	385,203	2,552,811
Ontario	80,112	9,966	17,389	37,095	144,562
Manitoba	60,925	30,674	5,517	39,647	136,763
Saskatchewan	135,217	27,317	7,365	58,475	228,374
Alberta	89,021	13,283	16,875	18,118	137,297
British Columbia ...					
CANADA	2,671,552	533,167	370,656	721,833	4,297,208
<u>1 9 4 2</u>					
Prince Edward Island)	45,473	10,771	16,495	22,086	94,825
New Brunswick	48,507	5,557	4,585	23,990	82,639
Nova Scotia	571,198	128,180	110,405	116,247	926,030
Quebec	1,408,483	278,478	101,687	400,436	2,189,084
Ontario	60,254	64,187	17,404	34,152	175,997
Manitoba	35,941	19,831	16,820	33,266	105,858
Saskatchewan	128,196	22,760	16,205	57,055	224,216
Alberta	62,466	12,522	14,983	18,876	108,847
British Columbia ...					
CANADA	2,360,518	542,286	298,584	706,108	3,907,496

Table 20 - EMPLOYEES, SALARIES AND WAGES OF THE STONE PRODUCTS INDUSTRY, BY PROVINCES, 1941 and 1942

Province	Average Number of Employees					Salaries	Wages	TOTAL SALARIES and WAGES
	On Salaries		On Wages		TOTAL			
	Male	Female	Male	Female				
<u>1 9 4 1</u>								
Prince Edward Island)	5	3	22	...	30	8,610	23,024	31,634
New Brunswick	7	1	23	...	31	7,088	26,625	33,713
Nova Scotia	57	2	155	...	214	80,020	172,584	252,604
Quebec	136	17	394	3	550	230,508	554,333	794,841
Ontario	23	2	26	1	52	25,795	24,979	50,774
Manitoba	16	2	13	...	31	25,181	17,328	42,509
Saskatchewan	7	5	27	...	39	14,661	27,470	42,131
Alberta	18	1	21	...	40	22,967	25,361	48,328
British Columbia ...								
CANADA	269	33	681	4	987	414,830	881,704	1,296,534
<u>1 9 4 2</u>								
Prince Edward Island)	5	2	21	...	28	11,098	21,840	32,938
New Brunswick	7	1	19	...	27	7,114	20,683	27,797
Nova Scotia	66	2	149	9	226	94,053	184,238	278,291
Quebec	111	19	359	9	498	217,992	533,687	751,679
Ontario	21	1	24	...	46	22,509	25,357	47,866
Manitoba	14	2	16	...	32	21,575	22,504	44,079
Saskatchewan	11	2	23	3	39	18,371	29,696	48,067
Alberta	13	...	16	...	29	16,093	20,572	36,665
British Columbia ...								
CANADA	248	29	627	21	925	408,805	858,577	1,267,382

Table 21 - WAGE-EARNERS, BY MONTHS, IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942 (Number on pay-roll on the last work day of each month)

Month	1 9 4 1			1 9 4 2		
	Male	Female	TOTAL	Male	Female	TOTAL
January	508	1	509	494	13	507
February	505	1	506	483	13	496
March	562	1	563	557	13	570
April	671	1	672	590	13	603
May	740	1	741	654	24	678
June	758	...	758	685	21	706
July	756	3	759	704	22	726
August	760	2	762	688	26	714
September	753	3	756	648	25	673
October	762	2	764	643	25	668
November	716	2	718	605	28	633
December	627	5	630	569	31	600
AVERAGE	681	4	685	627	21	648

Table 22 - HOURS WORKED PER WEEK BY WAGE-EARNERS IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942 (In one week of highest employment; overtime included)

Hours worked per week	Number of Wage-Earners		Hours worked per week	Number of Wage-Earners	
	1941	1942		1941	1942
50 hours or less	55	37	51-54 hours	111	32
51-43 hours	105	95	55 hours	22	11
44 hours	237	163	56-64 hours	103	57
45-47 hours	72	56	65 hours and over ...	79	63
48 hours	156	247	Total	960	856
49-50 hours	40	95	Total wages paid in selected week \$	33,992	24,191

Table 23 - FUEL AND ELECTRICITY USED IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942

Kind	Unit of measure	1 9 4 1		1 9 4 2	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal—Canadian ...	ton	189	1,694	1,410	11,959
Imported ...	ton	2,689	17,556	3,213	21,665
Anthracite coal	ton	332	3,917	157	2,286
Lignite coal	ton	22	131	6	46
Coke	ton	190	2,083	222	2,546
Gasoline	Imp. gal.	60,563	20,249	53,967	17,021
Kerosene or coal oil	Imp. gal.	346	40	28	7
Fuel oil	Imp. gal.	71,050	5,538	115,628	11,212
Food	cord	312	1,733	233	1,873
Gas—Manufactured	M cu.ft.	68	67	44	43
Natural	M cu.ft.	545	265	504	301
Other fuel .....	...	...	825	...	990
Electricity purchased	K.W.H.	6,315,783	63,744	6,110,719	78,021
TOTAL .....	...	...	137,842	...	147,972

Table 24 - POWER EQUIPMENT IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1 9 4 1				
Steam engines and steam turbines	2	157	...	...
Diesel engines	3	157	...	...
Gasoline, gas and oil engines (other than diesel) ..	11	224	1	2
Hydraulic turbines or water wheels	1	15	...	...
Total Primary Equipment	17	553	1	2
Electric motors run by purchased power	695	8,347	71	1,133
TOTAL	712	8,900	72	1,135
Stationary boilers	7	320	1	90

Table 24 - POWER EQUIPMENT IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942 (Concluded)

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1 9 4 2</u>				
Steam engines and steam turbines	2	157	...	...
Diesel engines	4	213	1	80
Gasoline, gas and oil engines (other than diesel) ..	9	106	5	142
Hydraulic turbines or water wheels	1	25	...	...
Total Primary Equipment	16	501	4	222
Electric motors run by purchased power	619	6,901	37	544
TOTAL	635	7,402	41	766
Stationary boilers	7	206	...	...
Motor generator sets	1	25	...	...

Table 25 - COST OF MATERIALS USED IN THE STONE PRODUCTS INDUSTRY, 1941 and 1942

	Cost at Works	
	1 9 4 1	1 9 4 2
	\$	\$
Stone--(a) From Canadian quarries	373,780	367,605
(b) Imported	185,162	195,808
Monuments, cut and polished, for lettering only	73,799	102,052
All other materials	611,272	759,922
TOTAL	1,244,013	1,425,387

Table 26 - OUTPUT OF THE STONE PRODUCTS INDUSTRY, 1941 and 1942

Product	Total Selling Value at Works	
	1 9 4 1	1 9 4 2
	\$	\$
Granite, cut and polished -		
(a) Monuments	1,582,016	1,602,854
(b) For building purposes	92,899	121,450
Marble, cut and polished -		
(a) Monuments	186,269	197,189
(b) For building purposes	148,294	139,109
Marble chips and dust	22,326	52,568
Limestone -		
(a) Monuments and bases	31,820	23,435
(b) For building purposes	384,265	102,388
Finished monuments, lettered only	120,681	162,047
Other products (x)	1,249,065	1,483,601
Repairs and custom work (re-lettering, etc.)	65,861	75,323
TOTAL	3,883,496	3,939,764

(x) Includes rock wool, etc.

Table 27 - PRODUCTION FROM THE STONE PRODUCTS INDUSTRY, BY PROVINCES, 1941 and 1942

	Granite		Marble		Marble Monu- chips and dust	Limestone		Finished monu- ments, lettered only		Other products	TOTAL
	Monu- ments	For building purposes	Monu- ments	For building purposes		For building bases	For building purposes				
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Prince Edward Island and New Brunswick -											
1941	73,588	770	14,411	...	...	1,500	...	2,260	2,793	95,322	
1942	82,551	...	11,084	...	...	1,500	...	2,440	1,115	98,690	
Nova Scotia -											
1941	44,870	930	10,344	...	...	1,065	...	38,172	7,505	102,886	
1942	38,894	1,770	17,276	...	...	1,334	...	32,034	4,676	95,984	
Quebec -											
1941	355,936	35,332	5,639	57,565	7,862	4,389	22,972	9,133	283,053	761,881	
1942	401,774	57,548	8,807	54,429	1,880	4,590	1,000	6,106	319,287	855,421	
Ontario -											
1941	881,220	25,150	85,337	73,164	2,170	15,795	359,359	36,616	998,655	2,477,466	
1942	840,207	37,132	92,301	75,426	7,678	3,400	101,038	78,789	1,211,518	2,447,489	
Manitoba -											
1941	66,460	...	18,366	...	350	4,220	...	26,644	925	116,965	
1942	52,475	...	17,386	...	165	5,482	...	31,314	8,599	115,421	
Saskatchewan -											
1941	50,134	...	37,568	...	1,707	4,301	1,694	5,215	13,841	114,460	
1942	47,973	...	37,918	...	1,415	6,629	350	5,875	7,991	108,151	
Alberta -											
1941	50,233	25,000	12,328	8,000	10,112	550	...	641	3,541	110,405	
1942	61,087	25,000	10,117	5,000	21,230	500	...	4,329	1,329	128,592	
British Columbia											
1941	79,575	5,717	2,276	9,565	125	...	240	2,000	4,613	104,111	
1942	77,893	...	2,300	4,254	...	...	...	1,160	4,409	90,016	
CANADA -											
1941	1,582,016	92,899	186,269	148,294	22,326	31,820	384,265	120,681	1,314,926	3,883,496	
1942	1,602,854	121,450	197,189	139,109	32,368	23,435	102,388	162,047	1,558,924	3,939,764	

Table 28 - TOTAL PRODUCTION IN CANADA OF DRESSED BUILDING STONE, 1927-1942

Year	Granite		Marble		Limestone		Sand- stone from quarries	TOTAL
	From quarries	From dressing works	From quarries	From dressing works	From quarries	From dressing works		
	\$	\$	\$	\$	\$	\$	\$	\$
1927	267,194	83,877	...	673,126	716,929	1,713,446	8,784	3,463,355
1928	667,050	314,553	340,585	883,076	702,081	2,861,336	18,000	5,786,681
1929	746,537	465,185	347,256	1,621,112	944,491	2,739,504	92,500	6,956,585
1930	1,189,120	902,519	687,115	1,339,108	1,416,277	2,706,390	286,972	8,527,501
1931	1,011,499	1,032,202	576,458	1,054,952	1,085,767	1,872,131	686,616	6,819,615
1932	336,632	79,136	188,743	339,627	348,187	636,294	20,580	1,949,199
1933	114,318	40,224	27,377	73,445	111,235	281,074	19,300	666,973
1934	216,574	35,957	...	137,902	173,536	280,279	5,500	849,748
1935	403,951	184,033	16,000	130,227	425,247	837,985	97,400	2,094,843
1936	171,858	330,306	104,738	175,834	189,064	514,375	167,859	1,654,034
1937	252,346	179,357	18,297	347,405	248,659	438,450	51,893	1,536,607
1938	244,501	216,485	1,440	369,698	227,324	832,123	83,692	1,975,263
1939	561,253	438,619	145,618	174,275	349,547	664,270	101,448	2,435,030
1940	255,527	159,427	19,680	218,271	192,183	446,441	55,139	1,346,668
1941	284,803	92,899	51,535	148,294	241,298	384,265	15,016	1,218,110
1942	108,807	121,450	19,476	139,109	169,382	102,388	8,600	669,212

Table 29 - TOTAL PRODUCTION IN CANADA OF DRESSED MONUMENTAL AND ORNAMENTAL STONE, 1928-1942

Year	Granite		Marble		Limestone		Sandstone from quarries	TOTAL
	From quarries	From dressing works	From quarries	From dressing works	From quarries	From dressing works		
	\$	\$	\$	\$	\$	\$	\$	\$
1926	196,820	1,619,206	466,648	576,859	3,908	94,446	...	2,757,887
1927	147,510	1,728,293	449,717	420,651	1,523	97,264	...	2,844,958
1928	125,744	1,718,988	9,700	404,058	2,237	132,406	...	2,595,155
1929	149,810	1,815,463	...	391,947	4,722	325,876	...	2,687,818
1930	111,504	1,815,143	...	350,323	3,577	319,472	...	2,600,019
1931	251,379	1,584,099	...	257,668	6,300	43,584	...	2,143,030
1932	196,071	1,164,283	...	180,323	2,532	43,652	...	1,586,861
1933	215,616	1,111,354	...	200,313	2,868	30,370	...	1,560,521
1934	244,286	1,271,009	24,342	168,201	3,488	27,036	...	1,758,562
1935	277,568	1,268,414	...	158,249	1,680	26,690	...	1,732,601
1936	231,482	1,317,005	...	150,629	...	55,162	...	1,734,278
1937	278,140	1,468,895	(x) 900	176,101	2,335	117,404	...	1,983,775
1938	294,001	1,515,000	2,644	127,803	79,156	109,036	...	2,127,640
1939	260,375	1,513,958	800	129,623	3,321	53,309	325	1,961,711
1940	223,203	1,416,298	...	167,805	2,218	29,861	...	1,839,585
1941	291,643	1,582,016	...	186,269	2,339	51,820	400	2,094,487
1942	356,459	1,602,854	...	197,189	4,513	23,435	...	2,184,450

(x) Sandstone.

Table 30 - PRODUCTION IN CANADA AND IMPORTS OF ROCK WOOL, 1932-1942

Year	Production	Imports	
		Pounds	\$
1932 (From October 12) .....	...	309,791	5,301
1933 .....	...	2,230,762	38,262
1934	1,709	2,987,611	69,267
1935	66,459	1,922,938	57,877
1936	265,472	2,391,504	101,592
1937	346,460	2,030,144	81,050
1938	396,261	1,337,954	45,109
1939	525,998	1,820,763	44,860
1940	935,229	2,082,589	52,233
1941	1,185,324	2,633,544	74,791
1942	1,417,258		

Table 31 - SALES OF ROCK WOOL BY CANADIAN PRODUCERS, 1941 and 1942

	Three inch batts	Two inch batts	One inch batts	Granulated wool	Bulk or loose wool	Industrial wool
	sq. ft.	sq. ft.	sq. ft.	cu. ft.	cu. ft.	cu. ft.
1941						
January	385,610	1,082,115	...	91,926	26,821	22,960
February	410,422	904,651	...	79,110	28,416	40,531
March	323,169	660,577	...	87,438	15,238	45,972
April	430,459	751,183	...	61,128	23,389	40,964
May	670,589	1,349,373	20,700	102,539	23,785	55,594
June	521,334	1,295,423	84,427	137,030	37,175	33,379
July	941,247	1,778,731	392,276	126,428	29,587	37,288
August	1,335,141	1,781,498	579,675	149,558	38,496	36,879
September	800,585	1,678,827	644,262	182,157	63,320	32,358
October	1,021,775	3,122,082	661,573	199,697	71,909	39,641
November	1,106,597	3,259,235	780,962	167,487	54,164	28,107
December	728,548	2,701,034	584,795	200,440	35,154	57,327
TOTAL	8,675,476	20,364,529	3,748,670	1,584,938	447,454	448,798

Table 51 - SALES OF ROCK WOOL BY CANADIAN PRODUCERS, 1941 and 1942 - (Concluded)

	Three inch batts	Two inch batts	One inch batts	Granulated wool	Bulk or loose wool	Industrial wool
	sq. ft.	sq. ft.	sq. ft.	cu. ft.	cu. ft.	cu. ft.
1942						
January	775,627	1,452,825	289,637	133,265	37,197	32,685
February	555,816	1,555,625	566,450	135,640	51,959	14,915
March	584,136	1,503,762	276,528	151,020	29,091	22,510
April	548,034	1,072,926	109,519	124,707	14,507	12,678
May	532,847	1,955,587	241,140	157,113	51,807	8,951
June	791,392	2,202,134	957,256	169,715	55,544	22,273
July	998,713	3,277,206	613,854	207,552	29,517	28,896
August	958,885	3,187,138	983,258	186,387	35,044	11,551
September	782,430	3,259,148	964,066	224,128	56,292	14,165
October	916,499	3,193,824	831,160	232,552	61,196	20,825
November	1,093,011	3,141,077	635,143	249,453	56,994	15,212
December	900,975	3,111,442	657,968	248,997	50,551	20,856
TOTAL	9,038,365	28,712,694	6,925,757	2,200,527	468,979	225,115

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