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DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

MINING, METALLURGICAL & CHEMICAL BRANCH

# THE CEMENT INDUSTRY

IN

CANADA

1936

including:- 1. The Cement-Making Industry.

2. The Cement Products Industry.



53.68071. 168

Price 15 cents

553.68071

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

Dominion Statistician: R. H. Coats, LL.D., F.R.S.C., F.S.S. (Hon.) Unief - Mining, Metallurgical and Chemical Branch: W. H. Losee, B.Sc. Statistician - Chemical and Metal Products: H. McLeod, B.Sc. Wining Statistician: R. J. McDowall, B.Sc.

## 1. THE CEMENT-MAKING INDUSTRY, 1956.

Producers' sales of Portland cement in Canada during 1936 totalled 4,508,718 barrels valued at \$6,908,192 compared with 3,648,086 barrels worth \$5,580,043 in 1935, according to finally revised statistics issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. The number of barrels of cement sold and the apparent consumption of same during 1936 were the largest since 1931 in which year sales and consumption totalled 10,161,658 and 10,085,986 barrels, respectively.

Although the first official record of the production of cement in Canada is that of the manufacture of hydraulic cement from the black limestones of Quebec in 1856, it is understood that lime and hydraulic cement were made at Hull between 1830 and 1840. Plants were also operated at an early date in Quebec at the mouth of the Magdalen river, Gaspe county, and in Argenteuil county; in Ontario at Kingston and Thorold. It was not until 1887 that serious competition to the domestic production showed itself in large importations of Portland cement; in this year Canadian output totalled 69,843 barrels valued at \$81,909. Canadian Portland cement made its appearance on the market in 1889. The period 1898 to 1905 was the scene of a boom in the construction and promotion of cement plants in Canada; eleven marl plants were erected during these years of which only three were really successful. Later years witnessed the abandonment of the marl process and the development of the present limestone or limestone-clay slurry method of production. The high point in Canadian cement production was recorded in 1929 when shipments amounted to 12,284,081 barrels valued at \$19,337,235.

During 1936, cement was produced in Quebec, Ontario, Manitoba, Alberta and British Columbia with 46.4 per cent and 34.2 per cent of the Dominion output coming from Quebec and Ontario, respectively.

Four firms were reported as active in 1936 and \$55,343,991 was employed as capital; the number of employees totalled 1,052 compared with 924 in 1935; salaries and wages distributed were recorded at \$1,196,664 against \$1,027,416 in the preceding year. The industry in 1936 consumed \$1,576,142 worth of fuel and electricity, 1,180,358 tons of limestone, 25,447 tons of gypsum, 94,943 tons of clay and 8,549 tons of sand. The high selling price per barrel for cement in 1936 was \$2.68 and the low, \$1.25, compared with \$2.79 and \$1.25 in 1935.

The outlook for the use of cement in the coming year in Canada depends in a large measure upon the progress of the construction industry of the country. Recovery, in the field of construction, has been quite as much deferred as was the reaction to the business depression of 1929 and the four years immediately following. The production and sale of cement has been following a similar course.

From a national production of over twelve million barrels of cement in 1929, there was a drop of seventy-five per cent to the depression low of 1933. A definite improvement in the industry was reflected in the production figures for 1936 when increases of 23.6 per cent in quantity and 23.8 per cent in value over those of the preceding year were realized. This improvement is continuing as evidenced by a production of 2,922,726 barrels during the first seven months of 1937, or an increase of 35.1 per cent above the quantity shipped in the corresponding period of 1936.

It is worthy of note that in a number of fields the use of cement has proved to be increasingly popular in the past year. For instance, the province of Ontario, in its road programme, called for more than 250 miles of concrete pavement, compared with 70 miles the year previous. In addition, the Department of Highways of Ontario built over 50 concrete bridges this year, most of them of the rigid frame type.

The modernistic type of house building lends itself readily to the use of concrete and great interest is being shown by home builders in its possibilities. A number of these cement houses have been constructed and several architectural monolithic concrete structures are under way, and more are proposed.

Under the provisions of the Home Improvement Plan, by which farm buildings were permitted to be financed, a good impetus has been given to the use of cement on the farm. This is a field which is capable of much further expansion.

There are many factors which lead one to believe that the usefulness of cement, as a construction material, will continue to increase. Its adaptability to exacting conditions and severe climatic changes, its permanent nature and favorable costs as compared with many other competing materials, all combine to encourage its use. The speed with which it can be placed and set, with the use of modern machinery, together with its safety features, appeal to the road engineer. The requirements of civic by laws make its use desirable in "firesafe" residential construction, garages, and public buildings.

It is worthy of note that this material, over a period of several years, has been available to the consumer at prices which have not suffered severe fluctuations and that the quality of the Canadian product has been maintained. It would seem to be most likely that in the upward march of construction, cement will play a large part in giving employment in highway, sewer, dock, bridge and building construction.

"During the past few years there has been widespread interest in the low-cost road .... A great deal of publicity has been given to the stabilization of road surfaces, but little attention has been paid to improving the soil on the roadbed prior to stabilization, and practically none to improving the foundations.
... The use of Portland cement in soil stabilization is in the experimental or developmental stage. Experiments on a small scale started in 1933 in South Carolina showed definite promise, and since that time more enlarged field

investigations have been carried on. Last year research jobs were constructed in Wisconsin, Michigan, Illinois and Missouri. In South Carolina the soils treated consisted of a natural fine sand and clay mixture. In Wisconsin the soil treated was a loose fine sand to which approximately 20 per cent silty clay soil was added prior to cement stabilization. In Missouri the soil treated is reported to have been clay." (Prof. F. C. Lang - University of Minnesota).

Table 1 - PRINCIPAL STATISTICS OF THE CEMENT-MAXING INDUSTRY IN CANADA, 1935 and 1936.

	1.935	1936
Number of firms	4	4
Number of plants	9	9
Capital employed\$	52,454,004	53,343,991
Number of employees - On salary	78	84
On wages	846	968
Total\$	924	1,052
Salaries and Wages - Salaries 4000000000000000000000000000000000000	150,587	173,001
Wages oonunganooonung \$	876,829	1,023,663
Total\$	1,027,416	1,196,664
Selling value of products (gross) \$	5,580,043	6,908,192
Cost of fuel and electricity (b) \$	1,227,410	1,576,142
Cost of process supplies (c)\$	394,264	592,929
Net value of products sold	3,958,369	4,739,121

<sup>(</sup>a) Information not available

Table 2 - WAGE-EARNERS ON 15th of EACH MONTH OR NEAREST REPRESENTATIVE DATE, 1933

to 1936.					
Month	1933	1934	1935	1 9 Quarry	3 6 Mill
January	618	556	705	44	721
February	609	565	660	43	705
March	606	561	671	63	752
April	628	685	687	121	906
May	482	846	802	107	1,017
June	558	885	920	1.60	901
July ,	632	965	937	167	917
August	815	883	947	117	921
September	787	861	1,042	120	929
October	798	865	964	122	926
November	716	844	943	97	886
December	584	789	896	82	778

Table 3 - NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS

Hours	1935 Number	1936 Number	Hours	1935 Number	1936 Number
40 or less 41 - 45 44 45 - 47 48 - 50 49	246	60 262 25 440	51 - 53	18 88 110	14 58 17 128 105

<sup>(</sup>c) Other than item (b).

Table 4 - TOTAL FUEL AND ELECT	PRICITY USED	IN THE CE	MENT INDU	STRY, 1935 a	nd 1936.
	Unit of	1 9	3 5	1 9	3 6
Kind	measure	Quantity	\$	Quantity	\$
Bituminous coal - Canadian	short ton	78,477	433,347	119,903	635,631
Imported	short ton	53,338	291,741	66,460	367,740
Gasoline (other than for					
cars or trucks)	Imp. gal.	35,125	6,048	94,015	17,564
Kerosene	Imp. gal.	1,564	290	2,951	51.7
Fuel oil	Imp. gal.	12,032	1,446	13,589	1,478
Electricity purchased	K.W.H. 5	1.958.8596	494.538	62,038,700	553, 212

...1,227,410

...1,576,142

(x) Includes service charges.

TOTAL COST

Table 5 - COAL USED IN CANADIAN CEMENT PLANTS, 1931 - 1936.

	CANAD	IAN	FOREIGN	
Years	Tons	\$	Tons	\$
1931	288,851	1,569,214	195,163	962,076
1932	120,296	652,734	90,718	440,546
1933	48,905	236,947	46,955	229,399
1934	69,853	367,880	60.877	330,432
1935	78,477	433,347	53,338	291,741
1936	119,903	635,631	66,460	367,740

Table 6 - KILNS USED BY CANADIAN CEMENT INDUSTRY, 1931 - 1936.

Year	Rotary	Vertical	Total Daily Capacity
	No.	No	Barrels
1931	43	1	42,422
1932	47	0.40	43,822
1933	41	@ n Ø	43,622
1934	41	000	43,922
1935	20	0 0 0	32,650
1936	19	000	33,000

Table 7 - QUANTITY AND VALUE OF ELECTRICITY PURCHASED BY CANADIAN CEMENT COMPANIES,

Year	Kilowatt hours	\$(x)	Year	Kilowatt hours	\$(x)
1931	152,884,534 85,630,342	741,790 590,891	1934 1935	48,457,250 51,958,859	496,138 494,538
1933		508,841	1936	62,038,700	553,212

(x) Includes service charges.

Table 8 -	POWER	EQUIPMENT	IN	CANADIAN	CEMENT	PLANTS.	1936.
-----------	-------	-----------	----	----------	--------	---------	-------

Description	Number of units (x)	Total horse power (manufacturers rating)
Steam engines and steam turbines	5	113
Diesel engines	2	516
than diesel	34	1,567
Hydraulic turbines or water wheels  Rectric motors - Operated by purchased	000	<b>⊕ o o</b>
power	1,164	69,203
Operated by own power.	10	756
Boilers	15	587

# (x) Includes reserve equipment.

Table 9 - SUMMARY STATISTICS OF CEMENT PRODUCTION, SALES, ETC., IN CANADA, 1935 and 1936.

SIL	n T300°			
	1 9	3 5	1 9	3 6
	Barrels(x)	Value	Barrels(x)	Value
		\$		\$
Output	3,487,602	0.3.0	4,939,030	0 0 9
Sold or used	3,648,086	5,580,043	4,508,718	6,908,192
Stocks on hand December 31st	1,402,017	430	1,832,380	0 0 0
IMPORTS -	PART AND ADDRESS OF THE PART A			
Portland cement and hydraulic or	17 770	CO 070	70 007	305 100
water lime	17,738	60,079	<b>39</b> ,867	107,180
Manufactures	000	17,102	.000	7,141
TOTAL IMPORTS	000	77,181	000	114,321
EXPORTS -				
Portland cement	55,607	44,365	68,929	56,909
APPARENT CONSUMPTION	3,610,217	303	4,479,656	<b>9                                    </b>

	the same of the sa				
(x) 1	barre]	. = 3	50	pounds	0

(v) I parrer - 200 bonting.			
Table 10 - PRODUCTION AND	APPARENT CONSUMPTION	OF CEMENT IN	CANADA, 1926 - 1936.
	SOLD OR	USED	APPARENT CONSUMPTION
Year	Barrels	\$	Barrels
1926	8,707,021	13,013,283	8,442,203
1927	10,065,865	14,391,947	9,835,525
1928	11,023,928	16,739,163	10,790,650
1929	12,284,081	19,337,235	12,105,950
1930	11,032,538	17,713,067	10,977,238
1931	10,161,658	15,826,243	10,085,986
1932	4,498,721	6,930,721	4,466,738
1933	8,007,432	4,536,935	2,974,020
1934	3,783,226	5,667,946	3,727,521
1935	3,648,086	5,580,043	3,610,217
1936	4,508,718	6,908,192	4,479,656

Tehle 11	- PRODUCERS	SALES OF	CEMENT	TN	CANADA	RY	PROVINCES	1934	- 1936.
Table II -	- LINDOOLING	DWILL'S OT.	O DEMEDIA T	778	OWNUNU"	D.A.	I THO STROPPS	エンジェ	70000

20020						
	1 9 3	4	1 9	3 5	1 9	3 6
Province	Barrels	Value	Barrels	Value	Barrels	Value
		\$		\$		\$
Quebec	1,613,641	2,294,847	1,751,012	2,472,008	2,093,130	2,945,074
Ontario	1,702,128	2,403,590	1,243,836	1,752,148	1,542,463	2,180,895
Manitoba	181,166	411,247	266,457	604,857	348,042	783,095
Alberta	163,946	326,253	219,555	436,914	243,534	482,197
British Columbia	122,345	232,009	167,226	314,116	281,549	516,931
CANADA	3,783,226	5,667,946	3,648,086	5,580,043	4,508,718	6,908,192

Table 12 - SELLING PRICE PER BARREL OF CANADIAN CEMENT, F.O.B. WORKS, 1931 - 1936

Year	High	Low	Year	High	Low
1931	\$ 2,60 2,55	\$ 1.28 1.25	1934	\$ 2.36 2.79	\$ 1,25 1,25
1933	2,55	1,25	1936	2.68	1.25

Table 13 - LIMESTONE, GYPSUM, SAND AND CLAY USED IN CANADIAN CEMENT PLANTS, 1931-1936

Year	Limestone	Gy <sub>1</sub> sum	Sand	Clay
	Tons	Tons	Tons	Tons
1931	2,489,147	56,677	(a)	(a)
1932	1.141.376	27,538	(a)	(a)
1933	616,364	13,319	(a)	(a)
1934	806,546	19,172	(a)	(a)
1935	818,443	21,611	5,047	(a)
1936	1,180,358	25,447	8,549	94,943

(a) Data not recorded

Table 14 - VALUE OF CONSTRUCTION CONTRACTS AWARDED, BY PROVINCES, 1932 - 1936.

(Maclean Building Reports Ltd.)

Provinces	1932	1933	1934	1935	1936
	\$	\$	\$	\$	•
Maritimes  Quebec Ontario  Manitoba  Saskatchewan  Alberta  British Columbia	9,359,500 52,525,300 49,291,800 4,503,500 2,705,200 5,948,200 8,558,900	7,218,700 32,539,200 42,573,400 2,138,000 775,200 2,825,900 9,219,400	9,968,600 34,135,500 63,358,300 3,905,000 1,563,200 3,489,400 9,391,500	14,373,500 44,471,900 70,872,800 8,744,400 3,841,300 5,893,000 12,108,100	17,908,800 45,749,500 72,393,300 6,994,400 2,200,600 6,297,400 11,044,000
CANADA	132,872,400	97,289,800	125,811,500	160,305,000	1.62,588,000

Table 15 - TOTAL COST OF MATERIALS USED BY THE CONSTRUCTION INDUSTRY IN CANADA, BY GROUPS AND PROVINCES,

		34 and 1935.			
(Const	ruction Branch - Do	minion Bureau of			
			Harbour Commissions		
	General and		Provincial and		
	Trade Contractors	Municipalities	Dominion Government	TOTAL COST	
	and Subcontractors		Departments		
	\$	\$	\$	\$	
1934					
CANADA	51,776,922	6,741,108	12,274,105	70,792,135	
Prince Edward Island	110,018	25,770	5,125	140,913	
Nova Scotia	1,740,514	149,201	646,312	2,536,027	
New Brunswick	1,620,655	158,880	383,855	2,163,390	
Quebec	16,317,628	1,084,187	962,935	18,364,750	
Ontario	23,745,812	4,035,295	5,755,886	33,536,993	
Manitoba	1,826,745	348,691	419,841	2,595,277	
Saskatchewan	2,112,550	168,833	171,468	2,452,851	
Alberta	1,425,858	292,360	344,381	2,062,599	
British Columbia and Yukon	2,877,142	477,891	261,648	3,616,681	
Not Separable by Provinces .	000	900	3, 322, 654	3,322,654	
1075					
1935	70 740 000	5 304 950	17 100 007	04 777 504	1
CANADA	76,342,622	5,194,279	13,196,683	94,733,584	
Prince Edward Island	423,732	+	99,508	523,240	
Nova Scotia	3,283,797	120,506	2,564,604	5,968,907	
New Brunswick	2,640,856	261,745	1,250,908	4,153,509	
Quebec	21,226,929	863,362	3,359,754	25,450,045	
Ontario	<b>33</b> ,500,2 <b>9</b> 3	2,647,503	4,051,812	40,199,608	
Manitoba	4,451,635	312,631	625,915	5,390,181	
Saskatchewan	1,940,022	93,633	254,866	2,288,521	
Alberta	3,789,086	252,900	616,523	4,658,509	
British Columbia and Yukon .	5,086,272	641,999	372,793	6,101,064	

<sup>/</sup> One city only. Included in third column.

Table 16 - DESCRIPTION, CLASSIFICATION AND VALUE OF WORK(x) PERFORMED IN CANADA BY (SPECIFIED) PRINCIPAL, GENERAL AND TRADE CONTRACTORS, ETC., 1934 and 1935.

Construction Branch - Dominion Bureau of Statistics 1934 9 Repairs. Type of construction TOTAL New alterations TOTAL VALUE :Construcand mainten-VALUE tion ance \$ \$ BUILDING (a) 3,725,551 Dwellings 12,819,098 11,391,298 15,116,849 Churches and church halls ... 4,994,872 3,306,569 4,483,587 577,018 2,668,890 Hospitals and sanatoria .... 2,506,208 158,209 2,827,099 1,047,904 Office buildings 1,587,591 2,802,330 3,850,234 1,503,356 908,773 2,150,182 3,058,955 Stores ..... 1,794,952 Factories and warehouses ... 7,997,286 7,950,204 9,745,156 1,039,512 990,184 236,115 1,226,299 Garages ..... Government and municipal 8,816,757 13,516,086 2,508,885 16,024,971 buildings ..... 1,159,363 4,219,731 5,379,094 Service stations ...... 1,846,355 Farm buildings 476,645 366,114 51,694 417,808 ENGINEERING -Paved streets and highways . 16,150,231 16,016,106 4,336,775 20, 352, 881 44,112,953 Other streets and highways . 21,931,248 10,937,174 32,868,422 Bridges, viaducts, etc. .... 5,161,652 3,433,991 1,598,719 5,032,710 Watermains and waterworks 6,113,456 3,007,474 1,851,226 4,858,700 systems ............ Sewers and sewage disposal , 3,880,357 2,623,491 900,467 3,523,958 Central electric stations, 1,719,007 3,751,836 light and power plants .... 3,001,971 6,753,807 HARBOURS, RIVERS, ETC. Docks, wharves, piers, etc., 7,464,124 6,263,281 2,598,562 8,861,843 Retaining walls, etc. ..... 830,964 1,344,031 377,276 1,721,307 5,481,041 5,063,935 2,331,790 7,395,725 Dredging ...... TRADE CONSTRUCTION -Brick laying ...... 258,324 178,222 192,868 371.090 Carpentry work ...... 1,211,428 297,764 740,621 1,038,385 Concreting and cement work . 1,556,165 1,542,494 404,908 1,947,402 1,905,562 844,369 1.395.364 Electrical work 2,239,733 7,281,375 3,614,503 5,488,774 9,103,277 Heating and plumbing ..... 465,175 Masonry and stone work 221,505 343,320 121,855 Lathing, plastering and 271.262 217,588 Stucco ........... 273,887 491,475 2,799,103 447,645 2,960,396 3,408,041 Painting and decorating .... Sheet metal work, other than 1,174,909 536,736 1,048,009 1,584,745 roofing \*\*\*\*\*\*\*\*\*\*\*\*\*\* 35,017,792 Non-specified construction ... 23,814,084 17,586,061 41,400,145 TOTAL VALUE OF WORK PERFORMED 186,198,890 140,988,228 74,560,645 215,548,873

<sup>(</sup>x) Includes work by subcontractors, municipalities, Harbour Commissions, provincial and Dominion Government departments

<sup>(</sup>a) Includes concreting and cement work performed by subcontractors to the value of \$1,294,163 in 1934 and \$1,255,705 in 1935.

Table 17 - INDEX NUMBERS OF CANADIAN WHOLESALE PRICES OF SPECIFIED BUILDING AND CONSTRUCTION MATERIALS AND OF GENERAL WHOLESALE PRICES, 1926 - 100

	CONSTRUCTION	MATERIALS	AND OF GENERAL	WHOLESALE P	RICES, 192	6 - 100
	Building		Miscellan-			General
	and Con-		eous	Paint	Cement	Wholesale
Year	struction	Lumber	Materials	Materials	Index	Price
	Materials	Index	Index(x)	Index		Index
1913		67.4	67.1	57,5	90.9	64.0
1926		100.0	100.0	100.0	100.0	100.0
1927	96,1	97.5	95.7	92,2	94.0	97.7
1928	97.4	102.3	95,4	86.2	97.0	96.4
1929	99.0	103.5	96.3	92.0	1.00.2	95.6
1930	90.8	90.1	92,5	86.9	100.8	86.6
1931	81.9	77.4	89.4	69,1	102.3	72.1
1932	77.2	68 .8	88.7	63.5	105.3	66,7
1933	78.3	70.8	88.4	66.2	105.5	67.1
1934	82,5	78,6	88.2	75.0	105.2	71.6
1935	81.2	77.8	87.0	71.1	105.2	72.1
1936		86,3	88,6	68.2	105.8	74.6
1936						
January	83,6	83,1	88.0	67.9	105,2	72.9
February .		84.6	88.0	67.7	105.2	72.5
March		84.5	88.0	67.5	105.2	72.4
April		85.2	88.2	67.6	105.2	72.2
May		86.0	88,5	67.0	106.2	71.9
June		85.5	88.7	66.3	106.2	72.3
July		86.3	88.3	68.3	106.2	74.3
August		86.9	88,5	68.7	106.2	76.1
September	85.8	87.0	88.8	69.1	106.2	76.4
October		88.7	88,5	69.0	106.2	77.1
November .		88.8	88.3	69.0	106.2	77.2
December		89.1	91.0	70.1	106.2	79.6
	**			700=	200,0	, 0.0
1937 -	., 89,1	92.0	90,9	70.6	106.2	81.7
January		95.3	92.2	70.5	106.2	82.9
February		104.5	96,5	72,5	106,2	85.5
		105.0	96.4	76.6	106,2	86.1
April		104,8	96.5	76.4	106.2	85.1
May		101.3	96.6	75.9	106.2	84.6
June		99.9	97.0	75.7	106.2	87.5
July		99.0	97.2	75.6	106.2	85.6
August		96,1	96.8	75.5	106.2	85.0
September		95.8	96.0	75.3	106.2	84.7
October	92.7	ಶಾತ್ರ	30.0	(0.0	3.001	030

<sup>(</sup>x) Determined partly from cement prices.

This statement supplied by the Internal Trade Branch, Dominion Bureau of Statistics.

Table 18 - WORLD'S PRODUCTION OF CEMENT, 1929, 1935 and 1936.

(Source - Statistical Year Book of the League of Nations)

(Metric tons - 000's omitted)

Country	1929	1935	(x) 1936
AFRICA	760	(x)1,200	1,350
Algeria	58	65	* * *
Belgian Congo	60		000
Egypt	180	379	<b>3</b> 35
Madagascar	200	4	9 7 9
Morocco (Fr.)	65 21	180	160
Mozambique		40	
Tunis	a) 376	a) 527	702
onton of bouth Africa	a) 510	a) 521	102
ORTH AMERICA	31,426	13,816	20,184
Canada	1,945	554	784
United States	29,431	13,262	19,400
			VIII I
CARIBBEAN (Mexico) /	(225)	0 6 9	
SOUTH AMERICA	640	(x)1,300	1,400
Argentina	350		
Brazil	96	363	483
Chile	145	285	248
Peru	49	60	75
Uruguay f	000	0 0 0	000
CTA ( A C C D ) ()	5 570	(x)7,400	7,500
ASIA (excluding U.S.S.R.)(x)	5,570		
China (1)	185 570	203 8 <b>9</b> 2	980
Netherland Indies	149	140	300
Fr. Indo-China	184	107	149
Japan (2)	4,274	5,565	5,456
Palestine	69	187	165
Philippines	76	• • •	0 0 0
Siam	62	49	62
Syria and Lebanon	0 0 0	130	190
I.S.S.R	2,367	4,465	5,845
TUROPE (excluding U.S.S.R.)(x) (3)	34,190	33,800	37,000
Germany (4)	7,039)	8,802	11 520
Saar	167)		11,530
Austria	582	371	369
Belgium (5)	3,248	2,200	2,350
Bulgaria	151	124	122
Denmark	799	757	000
Spain	1,820	40	50
Estonia	62 278	284	
Finland	5,787	<b>3,9</b> 26	000
France	155	273	0 0 0
Greece	403	280	0 0 0
Italy	3,497	4,196	3,859
Latvia	40	72	98

(Metric tons - 000°s omitted)

Country	1929	1935	(x)1936	
EUROPE (concluded) -				
Norway	319	263	(x)290	
Netherlands	210	360	401	
Poland	1,008	843	1,048	
Portugal	88	214	245	
Roumania	317	361	• • •	
U. Kingdom	4,766	5,900	6,700	
Sweden	570	740	• • •	
Czechoslovakia (x)	1,250	980	1,050	
Turkey	65	131		
Yugoslavia	874	785	639	
OCEANIA (x) (3)	920	750		
Australia(a)	720	559	9,0 0	
(x)TOTAL	75,870	62,750	74,000	

NOTE - This table covers, as far as possible, both natural and artificial (Portland, etc.) cements. Cement is made by burning a mixture of calcareous and argillaceous materials and grinding the resulting clinker. For natural cement, the mixture used is found as such in nature; for artificial cements, the constituents are mixed in the desired proportions.

(x) Estimate . - a) Twelve months ending 30. VI.

/ Country not included in the totals.

(1) China: total shipments from "Customs ports" in China excluding Manchuria.

(2) Japan: including Korea, Formosa and Kwantung.

(3) Europe, Oceania: total includes estimate for other countries not mentioned.

(4) Germany: 1929, works affiliated to the German Cement Association.

(5) Belgium: artificial cement only

# DIRECTORY OF CANADIAN PORTLAND CEMENT MANUFACTURING COMPANIES, 1936.

Name	Head Office Address	Location of Plant
QUEBEC - Canada Cement Co. Ltd.	Canada Cement Bldg., Montreal	Hull and Montreal East
ONTARIO - Canada Cement Co. Ltd.  St. Marys Cement Co. Ltd.	Canada Cement Bldg., Montreal, P.Q. 357 Bay St., Toronto	and Port Colborne
MANITOBA - Canada Cement Co. Ltd.	Canada Cement Bldg., Montreal, P.Q.	Fort Whyte and Steep Rock.
ALBERTA - Canada Cement Co. Ltd.	Canada Cement Bldg., Montreal, P.Q.	Exshaw.
BRITISH COLUMBIA - British Columbia Cement Co. Ltd. Coast Cement Co. Ltd.	Box 10, Victoria Granville Island, Vancouver	Bamberton and Tod Inlet Granville Island.

#### THE CEMENT PRODUCTS INDUSTRY, 1936.

Output of manufactured cement products in 1936 was valued at \$1,713,347 compared with \$1,154,138 in 1935, \$1,596,998 in 1933, \$3,807,188 in 1931, and \$4,419,417 in 1929. Production in 1936 was the highest reported by the industry since 1932 and was 48 per cent above the 1935 figure; it was, however, lower than for any of the years from 1925 to 1932 inclusive and amounted to only 39 per cent of the value for 1929.

A total of 97 manufacturing plants were included in this industry in 1936; 59 were in Ontario, 22 in Quebec, 8 in British Columbia, 2 in each of New Brunswick, Manitoba and Alberta, and 1 in each of Nova Scotia and Saskatchewan. Many of these plants were very small, there being 51 with outputs of less than \$5,000, 16 in the \$5,000 to \$10,000 group, 20 between \$10,000 and \$25,000, and only 10 with outputs in excess of \$25,000. The works in Ontario accounted for 64 per cent of the total production and the factories in Quebec accounted for 15 per cent.

Products of the industry in 1936 included cement pipe of all kinds worth \$432,424, cement hollow building blocks worth \$315,141, cinder blocks worth \$167,350, artificial stone worth \$133,629, cement laundry tubs worth \$113,547, and other cement articles such as stucco, burial vaults, bricks, etc.

Construction work, such as the building of foundations, dams, bridges, etc., is not classed as manufacturing and is not included in this industry.

	the state of the same of the s	AL STATIST	Andrew Servensen Printers of Philipsen		RODUCTS INDU	The state of the s	
	No. oi opera-	Capital	-		Cost of fuel and		Gross sell- ing value of
Years	ting	employed		and	electricity		products
10020	plants				at works	at works	at works
		\$		\$	\$	\$	\$
1925,	. 197	2,594,736	819	697,716	40,442	730,296	2,020,239
1926	-	2,857,752	922	778,662	70,815	880,041	2,544,242
1927		2,671,273	872	936,053	56,576	912,686	2,663,065
1928	. 151	4,140,543	1,262	1,466,508	73,825	1,261,653	4,136,955
1929	. 153	5,024,497	1,347	1,608,238	84,130	1,502,952	4,419,417
1930	. 146	5,157,051	1,252	1,414,043	86,188	1,261,910	3,718,704
1931	. 157	5,081,227	1,166	1,296,250	83,032	1,245,483	3,807,188
1932	. 118	4,461,574	710	684,371	57,072	697,483	1,771,297
1933	83	3,545,805	460	392,941	42,482	625,525	1,596,998
1934	. 88	3,285,150	489	405,028	42,107	444,274	1,042,258
1935	. 94	3,024,286	519	451,625	37,176	459,296	1,154,138
1936		3,053,745	602	569,209	50,036	763,021	1,713,347

Table 19 - PRINCIPAL STATISTICS OF THE CEMENT PRODUCTS INDUSTRY, BY PROVINCES,

			1935 and	1936.			
	No. of		Average		Cost of		Gross sell-
	opera-	Capital	number	Salaries	fuel and	Cost of	ing value
Provinces	ting	employed	of em-	and	electricit	y materials	
	plants		ployees	wages	at works	at works	at works
		\$		\$	\$	\$	\$
1 9 3 5						•	
Nova Scotia New Brunswick		22,609	7	3,997	81	2,895	8,563
Quebec		1,,119,040	136	114,935	14,393	81,719	269,404
Ontario		1,635,243	340	299,170	21,090	338,872	774,589
British Columb		130,888	21	23,068	1,399	24,831	72,388
Manitoba	1)						
Saskatchewan .		116,506	15	10,455	21.5	10,979	29,194
Alberta	2)						Specialization and the Manager States of Special States (Manager States )
CANADA	94	3,024,286	519	451,625	37,176	459,296	1,154,138
1936							
Nova Scotia	. 1)						
New Brunswick		19,702	9	3,856	1.24	3,906	11,373
Quebec		895,940	125	104,364	14,954	103,109	260,035
Ontario		1,677,657	387	371,300	28,242		1,100,315
British Columb		332,630	56	68,912	6,368	179,411	291,713
Manitoba					"		
Saskatchewan .		127,816	25	20,777	348	15,212	49,911
Alberta							
CANADA	- management of	3,053,745	602	569,209	50,036	763,021	1,713,347

Table 20 - SIZE OF ESTABLISHMENTS, ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES and CAPITAL EMPLOYED, 1936.

CAPL	TAL EMPLOYEL	1936		
	Number of		Average	Gross selling
	operating	Capital	number of	value of pro-
	plants	employed	employees	ducts at works
		\$		\$
(a) PRODUCTION				
Under \$5,000	51	513,447	90	118,443
\$5,000 to \$10,000	16	374,134	53	117,834
\$10,001 to \$25,000	20	802,507	161	321, 261
\$25,001 to \$50,000	3	86,385	34	105,075
Over \$50,000	7	1,277,272	264	1,050,734
TOTAL	97	3,053,745	602	1,713,347
(b) NUMBER OF EMPLOYEES				
1 or 2 0000000000000000000000000000000000	44	541,363	60	110,420
3 to 10	39	877,364	189	388,103
11 to 20	9	560,014	127	328,866
Over 20	5	1,075,004	226	885,958
TOTAL	97	3,053,745	602	1,713,347
(c) CAPITAL EMPLOYED				
Under \$25,000	69	519,214	210	414,409
\$25,000 to \$100,000	19	878,718	151	435,219
Over \$100,000	9	1,655,813	241	863,719
TOTAL	97	3,053,745	602	1,713,347

Table 21 - CAPITAL EMPLOYED IN THE CEMENT PRODUCTS INDUSTRY, BY PROVINCES, 1935

	A STATE AND AD STATE AND ADDRESS OF THE PARTY OF THE PART	and 1936		y
	Present value of	Inventory value of	Cash, bills	
	lands, buildings,	materials on	and accounts	TOTAL
	fixtures,	hand, finished	receivable,	CAPITAL
Provinces	machinery and	products and	prepaid	EMPLOYED
Entrance of Control of	tools	stocks in process	expenses, etc.	
	\$	\$	\$	\$
1935*				
Nova Scotila and				
New Brunswick		4,051	6,010	22,609
Quebec		119,283	87,813	1,119,040
Ontario		324,386	327,269	1,635,243
British Columbia		9,473	15,605	130,888
Other provinces	85,169	11,136	20,201	116,506
CANADA	2,099,059	468,329	456,898	3,024,286
1936				
Nova Scotia and				
New Brunswick	. 12,898	5,620	1,184	19,702
Quebec		105,561	82,237	895,940
Ontario		340,840	314,042	1,677,657
British Columbia		14,451	141,735	332,630
Other provinces	95,856	10,511	21,449	127,816
CANADA		476,983	560,647	3,053,745
	3			

Table 22 - EMPLOYE		PROVI	NCES	1935 an	d 1936	NT PRODUCTS	INDUSTRY,	BY
Provinces	On sa	Laries	On wa	of empl ges Female		Salaries	Wages	SALARIES and WAGES
		and the second of the Second of Seco		at the case of the		\$	\$	\$
1935								
Nova Scotia and								
New Brunswick	2	000	5	000	7	1,300	2,697	3,997
Quebec		2	93	000	136	51,356	63,579	114,935
Ontario		7	266	2	340	89,077	210,093	299,170
British Columbia		300	1.2	000	21.	9,428	13,640	23,068
Other provinces	5	404	10	و د د	15	4,959	5,496	10,455
CANADA		9	386	2	519	156,120	295,505	451, 625
1936								
Nova Scotia and								
New Brunswick	2	0 2 0	7	505	9	1,300	2,556	3,856
Quebec		1	94	000	125	37,582	66,782	104,364
Ontario		9	304	5	387	105,561	265,739	371,300
British Columbia	1.7	1	38	3 2 3	56	20,910	48,002	68,912
Other provinces		1	18		25	8,506	12,271	20,777
CANADA	- problem to communicate	12	461	5	602	173,859	395,350	569,209

Table 23 - WAGE-EARNERS IN THE CEMENT PRODUCTS INDUSTRY, BY MONTHS, 1935 and 1936.

(On the 15th or nearest representative date)

(Un the 15th o	or neares	t represe	entative d	ate)		
	1	9 3	5	1	9 3	6
Months	Male	Female	TOTAL	Male	Female	TOTAL
January	208	2	210	261	4	265
February	212	2	214	292	4	296
March	266	2	268	366	4	370
April	346	2	348	430	5	435
May	402	2	404	513	5	518
June	461	2	463	534	5	539
July	511	2	513	566	6	572
August	513	2	515	577	6	583
September	486	2	488	555	6	561
October	518	2	520	526	6	532
November	428	2	430	511	6	517
December	319	3	322	392	6	398
AVERAGE	386	2	388	461	5	466

Table 24 - TOTAL OF WAG	F-EARNERS IN MUNTH U	F HIGHEST EMPLOYMENT, GROUP	FD ACCORDING TO
REGU	LAR HOURS WORKED PER	WEEK, 1936 (Overtime not	included)
Regular hours worked	Number of	Regular hours worked	Number of
per week	wage-earners	per week	wage-earners

het week	wage-counterb	por noor	WORD CONTINUED
40 hours or less	96	51 - 53 hours	22
41 - 43 hours	3	54 hours	173
44 hours	81	55 hours	1
45 - 47 hours	40	56 - 59 hours	36
48 hours	148	60 hours or over	122
49 - 50 hours	104	TOTAL SOCIOLOS	826

Table	25	- FUEL	AND	ELECTRICITY	USED	IN	THE	CEMENT	PRODUCTS	INDUSTRY	1935	and	1936.

		1 9	3 5	1 9	3 6
Kinds	Unit of		Cost at		Cost at
	measure	Quantity	works	Quantity	works
			\$	1 1/4 11/2	\$
Bituminous coal - Canadian	short ton	1,122	6,725	1,818	12,142
Imported	short ton	808	5,524	1,391	8,766
Anthracite coal	short ton	152	1,265	107	1,224
Lignite coal	short ton	1	14	3	16
Coke		68	555	108	929
Gasoline		3,918	929	6,825	1,682
Kerosene or coal oil		204	36	358	72
Fuel oil		6,938	412	1,453	149
Wood ,		53	292	76	332
Gas - Manufactured		567	440	513	385
Natural		24	12	50	32
Other fuel		000	455	000	273
Electricity purchased		874,078	20,427	1,060,821	24,034
TOTAL	\$	550	37,086	V 3 V	50,036

	~	-16-			
Table 26 - POWER EQUIPMENT IN THE	CEMEN!	F PRODUCTS	INDUSTR	Y, 1935 and	1936。
		1 9	3 5	: 1	9 3 6
Kinds	1	Number of	Total ra	ted:Number	of Total rated
		units	horse po	wer: units	horse power
Steam engines and turbines	000000	5	9.	5 6	115
Gasoline engines	0000000_	26	1.5	2 23	141
Total Primary Equipment			24	7 29	256
Electric motors run by purchased			2,59	264	2,619
TOTAL		290	2,83	7 293	2,875
Boilers		20	1,10		
Table 27 - POWER EQUIPMENT SHOWIN	IG "ORDI				OM "IN RESERVI
OF	IDLE .	1936			
	4				erve or idle
Kinds	1	Number of	Total ra	tedsNumber	of Total rated
		units	horse po	wer: units	horse power
C1			2.7		
Steam engines and steam turbines		6	11		000
Gasoline engines			14		000
Total Primary Equipment		29	25	900	0.14
Electric motors operated by purch					
power			2,48		
TOTAL		274	2,73	3 19	137
Boilers	*****	17	94	1	14
Table 28 - MATERIALS USED IN THE	CEMENT	PRODUCTS		, 1935 and	1936. 1 9 3 6
Materials	Unit of			The same of the sa	The second secon
Materials	Unit of		Cost	at	Cost at
Materials	Unit of measure		Cost	at	Cost at
	measure	e Quanti	Cost ty worl	at cs Quant	Cost at ity works
Portland cement	measure brl.	e Quanti 92,9	Cost ty work \$ 002 210	at Quant	Cost at ity works \$
Portland cement	brl.	92,9	Cost ty work \$ 002 210	at Quant, 398 130, 491 1,	Cost at ity works \$ 050 291,181 322 1,450
Portland cement	brl. bush. cu.yd.	92,9 4 27,6	Cost work \$ 210 65 697 32	at Quant, 398 130, 491 1, 391 47,	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092
Portland cement	brl. bush. cu.yd. cu.yd.	92,9 4 27,6 34,3	Cost ty worl 002 210 65 697 32 643 28	at Quant, 398 130, 491 1, 391 47, 724 31,	Cost at works \$ 050 291,181 322 1,450 029 55,092 376 26,329
Portland cement	brl. bush. cu.yd. cu.yd. cu.yd.	92,9 4 27,6 34,3 13,0	Cost ty worl \$02 210 165 167 32 189 18	at quant 398 130, 491 1, 391 47, 724 31, 555 18,	Cost at works \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593
Portland cement Quicklime Sand Gravel Crushed stone Cinders	brl. bush. cu.yd. cu.yd. cu.yd. cu.yd.	92,9 4 27,6 34,3 13,0	Cost worl \$ 210 265 397 32 28 389 18	at quant 398 130, 491 1, 391 47, 555 18, 856 22,	Cost at works \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel	brlobushoraydocuoydocuoydoton	92,9 4 27,6 34,3 13,0	Cost ty worl 502 210 665 697 32 643 28 989 18 7	at quant 398 130, 491 1, 391 47, 724 31, 555 18, 856 22, 888 2,	Cost at works \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel	brl. bush. cu.yd. cu.yd. cu.yd. ton	92,9 92,9 27,6 34,3 13,0	Cost ty worl  8 002 210 665 697 32 643 28 889 18 7 21 26	at quant (398 130, 491 1, 391 47, 555 18, 856 22, 888 2, 381	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501
Portland cement Quicklime Sand Cravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc.	brl. bush. cu.yd. cu.yd. cu.yd. ton	92,9 92,9 27,6 34,3 13,0	Cost ty worl  8 002 210 65 697 32 643 28 989 18 7 621 26 7 117	at s Quant 9 130, 491 1, 391 47, 555 18, 856 22, 888 2, 381 612	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974
Portland cement Quicklime Sand Crushed stone Cinders Reinforcing steel	brl. bush. cu.yd. cu.yd. cu.yd. ton	92,9 92,9 27,6 34,3 13,0	Cost ty worl  8 002 210 65 697 32 643 28 989 18 7 621 26 7 117	at s Quant 9 130, 491 1, 391 47, 555 18, 856 22, 888 2, 381 612	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc.	brl. bush. cu.yd. cu.yd. cu.yd. ton \$	92,9 4 27,6 34,3 13,0	Cost ty worl  8 002 210 65 697 32 643 28 89 18 7 21 26 117 16 459 INDUSTRY	at s Quant 9 130, 491 1, 391 47, 555 18, 856 22, 888 2, 381 612 296 BY PROVING	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES, 1936
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE	brl. bush. cu.yd. cu.yd. cu.yd. ton \$	92,9 4 27,6 34,3 13,0	Cost ty worl  8 002 210 65 697 32 643 28 89 18 7 21 26 117 6 16 5 459  INDUSTRY Bri	at s Quant 9 130, 491 1, 391 47, 555 18, 856 22, 888 2, 381 612 296 BY PROVING tish Other states of the states of	Cost at ity works  \$ 050
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE	brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT	PRODUCTS Ontari	Cost ty worl  8 002 210 665 697 32 643 28 689 18 7 221 26 117 16 459 INDUSTRY Col	at (s Quant (398 130) (491 1, (391 47) (724 31) (555 18) (856 22) (888 2)	Cost at ity works  \$ 050
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE	brl. bush. cu.yd. cu.yd. cu.yd. ton  CEMENT  Webec	PRODUCTS Ontari	Cost ty worl  8 002 210 665 697 32 643 28 689 18 7 621 26 7 117 16 459 INDUSTRY Column	at (s Quant (398 130) (491 1, (391 47, (724 31, (555 18, (856 22, (888 2, (888 2, (381, (612, (296) (BY PROVING) (tish Other (mbia Proving) (s) (s)	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES, 1936. er CANADA
Portland cement  Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL  Table 29 - MATERIALS USED IN THE Materials  Portland cement	brl. bush. cu.yd. cu.yd. cu.yd. ton  CEMENT  Webec  \$ 52,247	92,9 427,6 34,3 13,0  PRODUCTS Ontari	Cost ty worl  8 002 210 65 697 32 643 28 689 18 7 621 26 7 117 16 459 INDUSTRY Columbia 2 36	at (s Quant (398 130) (491 1, (391 47) (724 31, (555 18, (856 22, (888 2, (888	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES, 1936. er CANADA  \$ 165 291,181
Portland cement  Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc.  TOTAL  Table 29 - MATERIALS USED IN THE Materials  Portland cement Quicklime	brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT Quebec \$ 52,247 85	PRODUCTS  Ontari	Cost ty worl  202 210 265 397 32 343 28 389 18 7 221 26 117 16 459 INDUSTRY Column  22 36	at (s Quant (398 130) (491 1, (391 47, (724 31, (555 18, (856 22, (888 2, (888	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES, 1936 er CANADA  ces  \$ 165 291,181 93 1,450
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand	brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT hebec \$ 52,247 85 10,219	PRODUCTS  Ontari  \$ 193,28 36,15	Cost ty worl  202 210 265 397 32 343 28 389 18 7 21 26 117 16 25 459  INDUSTRY Bri Colv 22 36 55 68 7	at (s Quant (398 130) (491 1, (391 47) (724 31, (555 18, (856 22, (888 2, (888	Cost at ity works  \$ 050
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand Gravel	brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT webec \$ 52,247 85 10,219 1,684	PRODUCTS  Ontari  \$ 193,28 36,15 18,44	Cost ty worl  8 02 210 65 97 32 643 28 89 18 7 21 26 117 26 15 459 INDUSTRY Col. 22 36 55 68 7 22 3	at (s Quant (398 130) (491 1, (391 47) (724 31, (555 18, (856 22, (888 2, (381 612) (296  BY PROVIN (tish Oth (mbia Provi) (5,487 9, (957 ,226 1, (549 2,	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021  CES, 1936 er CANADA  \$ 165 291,181 93 1,450 489 55,093 654 26,329
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand Gravel Crushed stone	brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT thebec \$ 52,247 85 10,219 1,684 16,679	PRODUCTS  Ontari  \$ 193,28 36,15 18,44 6,08	Cost ty worl  8 002 210 65 97 32 643 28 89 18 7 21 26 117 16 459 INDUSTRY Column 2 36 5 7 2 36 6 7 2 36	at (s Quant (398 130) (491 1, (391 47, (724 31, (555 18, (856 22, (888 2, (888	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES, 1936 er CANADA er CANADA  \$ 165 291,181 93 1,450 489 55,093 654 26,323 130 24,593
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand Gravel Crushed stone Cinders	brl. bush. cu.yd. cu.yd. cu.yd. ton  CEMENT  Webec  \$ 52,247 85 10,219 1,684 16,679 598	PRODUCTS  Ontari  \$ 193,28 36,15 18,44 6,08 15,69	Cost ty worl  8 002 210 665 697 32 643 28 689 18 7 221 26 7 21 26 7 10 10 10 10 10 10 10 10 10 10 10 10 10	at (s Quant (398 130) (491 1, (391 47) (724 31, (555 18, (856 22, (888 2, (888	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021 CES 1936 er CANADA  165 291,181 93 1,450 489 55,093 654 26,323 130 24,593
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel	measure brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT Quebec \$ 52,247 85 10,219 1,684 16,679 598 9,515	PRODUCTS  Ontari  \$ 193,28 36,15 18,44 6,08 15,69 31,18	Cost ty worl  8 02 210 65 697 32 643 28 689 18 7 621 26 7 621 26 7 65 68 7 62 36 68 7 62 36 68 7 62 69	at (s Quant (s)	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 16,294 358 112,607 221,501 13,974 763,021  CES, 1936 er CANADA  165 291,181 1,450 489 55,093 654 26,329 654 26,329 662 112,607
Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL  Table 29 - MATERIALS USED IN THE Materials  Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials	measure brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT Quebec \$ 52,247 85 10,219 1,684 16,679 598 9,515 11,712	PRODUCTS  Ontari  \$ 193,28 31,36,15 18,44 6,08 15,69 31,18 147,67	Cost ty worl  202 210 265 297 32 243 28 289 18 201 26 201 17 201 16 201 36 201	at (s Quant (s)	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 16,294 358 112,607 221,501 13,974 763,021  CES, 1936. er CANADA  ces CANADA  \$ 165 291,181 93 1,450 489 55,092 654 26,329 130 24,593 16,294 642 112,607 711 221,501
Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc. TOTAL Table 29 - MATERIALS USED IN THE Materials Portland cement Quicklime Sand Gravel Crushed stone Cinders Reinforcing steel Other materials Boxes, crates, lumber, etc.	measure brl. bush. cu.yd. cu.yd. cu.yd. ton \$ CEMENT Quebec \$ 52,247 85 10,219 1,684 16,679 598 9,515	PRODUCTS  Ontari  \$ 193,28 36,15 18,44 6,08 15,69 31,18	Cost ty worl  202 210 265 397 32 343 28 389 18 7 21 26 117 16 2 459 INDUSTRY Bri Col. 2 36 5 8 7 2 36 1 1 6 2 69 4 59	at (s Quant (s)	Cost at ity works  \$ 050 291,181 322 1,450 029 55,092 376 26,329 090 24,593 773 16,294 358 112,607 221,501 13,974 763,021  CES, 1936 er CANADA  ces  CANADA  \$ 165 291,181 1,450 489 55,092 642 112,607 711 221,501 234 13,974

Table 30 - PRODUCTS MADE IN THE CEMENT PRODUCTS INDUSTRY, 1935 and 1936.

		1 9	3 5 .	1	9 3 6
Products			Selling value		Selling value
	Qu	antity	at works	Quanti ty	at works
			\$		\$
Cement bricks	M	1,198	17,178	2,877	63,032
Cement hollow building blocks, etc.	M	2,268	277,923	v d s	315,141
Cement drain pipe, sewer pipe,					
water pipe and culvert tile		200	305,203	2 - 3 - 3	432,424
Artificial stone		000	148,480	970	133,629
Cement laundry tubs	No.	4,926	34,659		113,547
Cinder blocks		796	102,615	1,543	167,350
Cement stucco		y + +	22,658	4 2 9	23,492
All other products (x)		نرد	245,422	030	464,732
TOTAL		ن برادوس	1,154,138	073	1,713,347

(x) Includes data for haydite blocks and slabs, burial vaults, garden furniture, etc.

Table 31 - PRODUCTS MADE IN THE CE	MENT PROD	UCTS INDUST	RY, BY PRO	DVINCES	1936
Products	Quebec	Ontario	British Columbia	Other Province	CANADA
	\$	. \$	\$	\$	\$
Cement bricks	18,833	40,527	3,546	1.26	63,032
Cement hollow building blocks	68,858	237,896	1.,602	6,785	315,141
Cement drain pipe, sewer pipe,					
water pipe and culvert tile	102,920	47,059	251,108	31, 337	432,424
Artificial stone	46,831	69,563	2,843	14,392	1.33, 629
Cement laundry tubs		106 342	7,205	\$ 10.50	113,547
Cinder blocks	6,032	1.61,318	000	, , ,	1.67,350
Cement stucco	700	7,480	11.036	4,976	23,492
All other products	16,561	430,130	14,373	3,668	464,732
TOTAL	260,035	1,100,315	291,713	61,284	1,713,347

Table 32 - OUTP	UT OF PRINCIP	AL CEMENT PRODUCTS, I	920 1936	2	
	Cement	Cement sewer pipe,			
	hollow	water pipe, deain	Cement	Artificial	Cinder
Years	building	pipe and culvert	bricks	stone	blocks
	blocks	tile			
	\$	\$	\$	\$	\$
1920	852,304	457,312	0.7	69,382	
1921	511,283	463,091	11,375	71.,741.	Not
1922	596,063	378,818	75,742	27,725	
1923	652,420	432,602	70,502	53,326	speci
1924	523,326	473,719	53,066	77,484	
1925	859,706	596, 256	40,261	256,118	fied
1926	1,066,901	647,798	53,412	479,287	
1927	941,194	766,269	94,302	473,051	69,145
1928	1,158,508	1,294,076	40,007	1,1.73,645	192,358
1929	902,413	1.9546,376	178 257	1,134,328	306,228
1930	802 604	1.181.943	129,409	877,659	273,097
1931	709,976	1.,373,136	30,763	824,056	231,782
1932	194,750	921,244	58,057	226,057	80,322
1933	179,052	1,014,443	8,685	101,548	39,617
1934	231.,901	202,345	13,949	86,511	76,684
1935	277,923	305,203	17,178	148,480	102,615
1936	31.5,141	432,424	63,032	133,629	167,350

#### Names of Firms

NOVA SCOTIA -Kentville Concrete Products Co.

NEW BRUNSWICK

Blakeny & Son, Ltd.

Hartland Cement Block Co, Ltd.

(x) Scott Concrete Works

QUEBEC -(x) Anderson, James Arco Stone Company, Ltd. Art Stone Limited Asselin & Lapierre Berville Artificial Stone Bilodeau, L. Alfred (x)Brunet, R. Castonguay, Lorenzo Daigle, T. Desco Stone Limited Duntile Company Ltd. Genest, Emile Giguere, Limoges (x) Gilbert, L Grandmaison, F. M. Guilbault Freres & Co. Industries Economiques Ltee Laflamme & Bourassa La Cie des Produits de Ciment La Societe de Constructions Modernes (x) Paquette, Emile (x)Pizzagalli Terrazzo Tile Mfg. Co. Ltd. Potier Freres Pressure Pipe Co. of Canada, Ltd. (x) Remy, Georges St. Louis, Napoleon Taillefer, Elie Tisserand, Felix

ONTARIO Aristocrat Mfg. Co. Ltd.
Ashman, T. J., & Son
Baird Barton Stone
Barr, William
Boyd Bros.
Brans, J.
Brown, A. E.
Brown, D. L.
Burwell, C. H.
Calder, James
(x) Campbell, John
Canadian Concrete Products Co. Ltd.
(x) Cawley, John

## Location of Plants

Meadow Road, Kentville

732 Main St., Moncton Hartland Barker's Point

Beebe 2565 Belanger St., Montreal 5701 De Normanville St., Montreal St. Charles, Bellechasse 5750 Poupart St., Montreal 144 Renaud Ave., Quebec Ormstown Riviere Bois Claire, Lotbiniere Rue Daigle, Sherbrooke 3851 Courtrai Ave., Montreal 6905 Clanranald Ave., Cote St. Luc St Basile, Co Portneuf 1392 Beaubien St. E. Montreal Pointe Claire 5801 Iberville St., Montreal Ste. Elizabeth, Co. Joliette 37 Victoria St., Lachine 484 Laviolette St., St. Jerome St. Jerome, Co. Terrebonne 27 St. Sacrement St., Chicoutimi 6824 Briand St., Montreal 105 Jean Talon St. W., Montreal 8645 Casgrain St., Montreal Head of Colbrooke Ave., Montreal St. Cesaire Ste. Ursule St. Polycarpe 5954 Des Ecores St., Montreal.

7 Fraser Ave., Toronto, 2
520 Grosvenor St., London
225 MacPherson Ave., Toronto
1856 Yonge St., Toronto
0sgoode
22 Savoy Ave., East York (Toronto)
215 Spruce St., Sudbury
272 Cedar St., Sudbury
Tillsonburg
Fergus
181 Emery St., London
Belleville
Westport

#### Names of Firms

Location of Plants

ONTARIO (continued) -Century Concrete Vault Ltd. Clemens & Miller Concrete Pipe Ltd. Concrete Pipe Ltd. Cooksville Co Ltd., The Cooper Concrete Block & Supply Co. Lte. Cross Supplies & Paving Ltd. Dominion Concrete Co, Ltd. Dominion Concrete Co. Ltd. Dundas Concrete Block Co. Ltd. D. W. S. Concrete Products Limited Economy Fuel Co. Fairbank Block & Supply Co. Ltd. Fletcher, J. H. Florry, A., & Son (Scarlett Road Block Co.) Frazer Duntile Co. Ltd. Frid Bros, Ltd. (x) Garnett, Thos, & Sons Grimo, Frank Hall, J. H. Hayley, Harry Hill, John D. Hoyles, Arthur (x) Hunt, J W Jackson, Jas. H. Johnston, J. H. Kilbourne, H., & Son Kitchener Concrete Block Co, Leaside Block & Tile Ltd. (x) Legg, Stanley London Cement Burial Vault Works McClelland, R J. Miller, A. Moore, T. L. Northern Cement B. B. & Tile Co. Nuttall, Wm. A. Peerless Construction Co. Peerless Stone Ltd. Pinchin, R. Rideau Concretes Ltd. Robinson, Ernest (x) Ross, Chas, & Son (x)Russello, Howard Sarnia Cement Products Co. Ltd. Schmidt, J. T. Schultz, John (x) Shoemaker, Allen (x) Stanley, J., & Son Stucco Products Ltd. Superior Stone Limited Sydenham Block & Tile Co.

Tack, Henry

Industrial St., Leaside Lincon St. W., Welland 198 Riddell St., Woodstock 400 Old Park Road, Toronto Cooksville 1001 Roselawn Ave., Fairbank 924 Windsor Ave., Windsor Kemptville Prescott 400 Scarlet Rd., Toronto 640 Dufferin St., Toronto 100 Wallace Ave., Hamilton 318 Hopewell Ave., Toronto Fonthill 16 Scarlett Rd., Toronto Clyde Ave., Westboro Main W. and Macklin Sts. Hamilton Barrett St., Port Hope 1500 Ferry St., Niagara Falls 577 Bethune St., Peterborough Hurdman Road, Ottawa 1512 Dufferin Place, Windsor St. George St., Dresden Queen St., Mount Forest 19 Orchard St., London 124 Holborne Ave., London 1452 Wharncliffe Rd S , London 217 Waterloo St., Kitchener Industrial St., Leaside 712 Oxford St., London 687 Little Grey St., London 378 Brock St., Kingston 50 Harvey St., Chatham East Avenue, Beamsville Timmins 948 Hamilton St., Preston 2367 Lilliam St., Windsor 510 Rhodes Ave., Toronto Clarkson River Road, Eastview R. R. 3, Mitchell. Dunnville Leamington Albert St., Point Edward R. R. 1, Waterloo 64 Kent Ave., Kitchener R. R. 4, Kitchener Stittsville 160 Wickstead Rd., Leaside 528 Victoria St., Kitchener 65 Watter St., Wallaceburg Adelaide and Victoria Sts., London

## DIRECTORY OF FIRMS IN THE CEMENT PRODUCTS INDUSTRY, 1936. (concluded)

#### Names of Firms

ONTARIO (concluded) Tooke, Thos.
Toronto Brick Company Ltd.
Toronto Concrete Burial Vault Co.
Wattenworth, Chas. W.
White, Homer, & Co.
Willowdale Block Co.
(x) Young Bros.

MANITOBA Dominion Stucco Co. Ltd.
Lo'ns Stone Works Limited

SASKATCHEWAN Concrete Products Ltd.

ALBERTA Bell, T. A.
Concrete Products & Supplies

BRITISH COLUMBIA B. C. Concrete Co. Ltd.
Canadian Stucco Products
Dawson Art Stone Works
Hunter, George
Pressure Pipe Co. of Canada Ltd.
Sanderson, Warren
Williams Concrete Co. Ltd.
Vancouver Cement Products

#### Location of Plants

57 Government Rd., Kirkland Lake Ormskirk Ave., Village of Swansea Islington Beamsville Spring St., Picton Willowdale Ridgeway

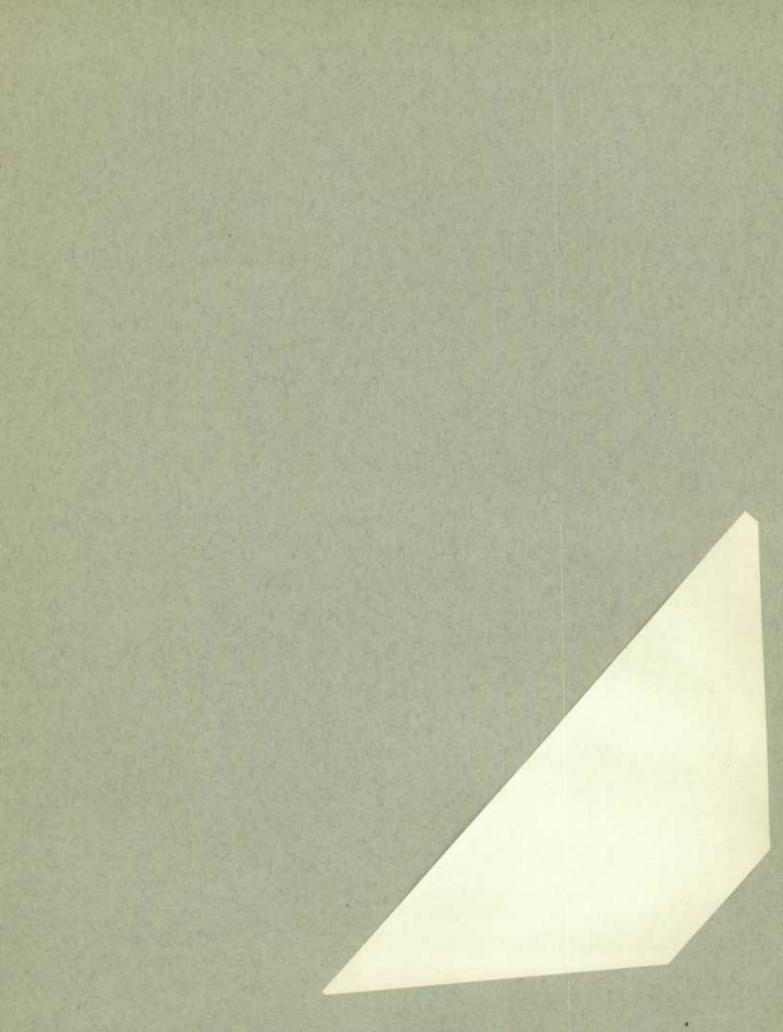
Sargent and St. James, Winnipeg 285 Lillian Ave., Norwood

Fifth and St. John Sts., Regina

122 - 3rd Ave.E., Calgary Rifle Range, East Calgary

77th and Oak Sts., Vancouver Granville Island, Vancouver 294 East 1st Ave., Vancouver 2613 East 22nd Ave., Vancouver Fell Ave., North Vancouver 1780 Broadway E., Vancouver 1401 Main St., Vancouver 7991 Granville St., Vancouver

(x) Indicates that the output of firm was so small in 1936 it was not included in the statistical compilations.



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