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DOMINION BUREAU OF STATISTICS - CANADA D. B. S. Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.), Fores Correction

Mining, Metallurgical and Chemical Branch Chief: W. H. Losee, B.Sc.

Industry

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CEMENT, 1931.

Revised statistics just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa show that shipments from Canadian cement plants during 1931 totalled 10,161,658 barrels valued at \$15,826,243 as compared with 11,032,538 barrels worth \$17,713,067 in 1930.

Cement was produced in 1931 at plants located in Quebec, <sup>O</sup>ntario, Manitoba, Alberta and British Columbia. Quebec mills produced 49 per cent of the total Canadian shipments, Ontario 34 per cent, Manitoba 5 per cent, Alberta 6 per cent, and British Columbia 6 per cent.

Imports of Portland cement into Canada during 1931 amounted to 38,392 barrels (estimated at 350 pounds each) averaging \$3.74 per barrel as against 143,436 barrels averaging \$3.97 in 1930. Exports of Portland cement were recorded at 114,064 barrels valued at \$124,267 as compared with 198,736 barrels worth \$212,071 in 1930. Cement made available for consumption in Canada amounted to 10,085,986 barrels in 1931.

The selling prices in 1931, f.o.b. Canadian works, were: high, \$2.60 per barrel and low, \$1.28 per barrel.

The Canadian cement plants employed in 1931, 43 rotary kilns and one of the vertical type; these possessed a total daily capacity of 42,422 barrels. The industry consumed 2,489,147 tons of limestone and 56,677 tons of gypsum. Plants east of the Great Lakes used gypsum quarried either in Ontario or the Maritime Provinces while western plants employed gypsum produced in Manitoba or British Columbia. One plant utilized shale from Jasper, Alberta. Both the wet and dry processes were employed during the year, the latter process predominating.

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In 1931 the Canadian cement industry consumed for all purposes 288,851 short tons of Canadian bituminous coal valued at \$1,569,214 and 194,067 short tons of imported at \$958,076; 1,096 tons of anthracite were used, this was appraised at \$4,000. 21,234 gailons of gasoline valued at \$4,938 and 14,176 gallons of fuel and diesel oil worth \$1,843 were utilized. Electricity purchased totalled 152,884,534 k.w.h. valued at \$741,790 and in addition 8,782,108 k.w.h. were generated for use by the industry. 1,190 electric motors with a total rating of 70,472 h.p. were operated by purchased power and 72 with a rating of 2,954 h.p. by power generated in the plants.

The United States Bureau of Mines reports the average consumption of fuel per barrel of cement (376 lbs.) produced in 1930 as follows:- coal, 127.9 pounds; oil, 0.2515 barrels; natural gas, 1916.8 cubic feet. Sixty-five wet process plants in the United States reported the use of coal alone as fuel in 1930 with an average consumption of 132.3 pounds of coal per barrel of finished cement; in 1929, 64 wet process plants reported the use of coal alone with an average consumption of 139.1 pounds of coal per barrel of finished cement.

3,6804

A report on "Limestone in Industry" by M.F. Goudge of the Mines Branch, Department of Mines, Ottawa, states that a finished Portland cement should analyse 60 to 65 per cent CaO, 20 to 25 per cent SiO2, 5 to 12 per cent combined Al2O3 and Fe2O3, and less than 4 per cent MgO. At several places in Canada an impure limestone is obtainable which on burning will yield a true Portland cement, but in most cases the limestone is too pure and to obtain the correct chemical composition, clay or shale must be added before burning. Magnesia is the important factor in connection with a limestone for Portland cement manufacture. A limestone as low as possible in magnesia is preferred.

SUMMARY STATISTICS OF CEMENT IN CANADA, 1931.

Liber ins Levi to runiling and alid discussion of the	Barrels	Value Value
Output	10,197,964 10,161.658 2,286,927	15,826,243
IMPORTS Portland cement	38,392	143,491 13,243
EXPORTS APPARENT CONSUMPTION	114,064 10,085,986	]24,267

PRODUCERS' SALES OF CEMENT IN CANADA, BY PROVINCES, 1931

CERT P. Stat 2:001 Connet	and at her exception of the second	Barrels	Value S
			in any 3 about a
Quebec analtarararara		4,942,323	7,092,895
Ontario		3,470,056	5,006,826
Manitoba		544,160	1,267.893
Alberta		626,483	1,286.080
British Columbia		578,636	1,172,549
Lootebio bio Tabi hulling	CANADA	1.0,161,658	15,826.243

PRINCIPAL STATISTICS (	)F THE	CEMENT	INDUSTRY	IN	CANADA.	1930 8	and 1951

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	that the state of the second second	0004.445
Number of plants	1 PPROBAL 11-15	12-1
Capital employed	59,210,737	57,378,436
Number of employees. On salary	126	121
On wages	2,191	1,699
Total	2,317	1,820
Salaries and wages Salaries	267,003	268.434
Wages	2,905,195	2,164,516
Total	3,172,198	2,432,950
Cost of fuel and electricity	4,120,367	3,230,870
Selling value of products soor, soors soors	17,713,067	15,826,243

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